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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, 2003

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 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 an accelerated filer as defined in Exchange Act Rule 126(2). Yes o No ☑

Aggregate market value of Common Stock held by non-affiliates at June 30, 2003: $54,596,198. 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 17, 2004: 41,004,834 shares.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement relating to the registrant's 2004 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 EXHIBIT 99 TO THIS REPORT, ENTITLED “CAUTIONARY FACTORS RELEVANT TO FORWARD-LOOKING INFORMATION.” READERS SHOULD ALSO CAREFULLY REVIEW ANY RISK FACTORS DESCRIBED IN OTHER DOCUMENTS WE FILE FROM TIME TO TIME WITH THE SECURITIES AND EXCHANGE COMMISSION.

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Item 1. *Business*

Overview

We are engaged in research aimed at the development of therapies that would use stem and progenitor cells to treat, and possibly cure, human diseases and injuries such as neurodegenerative diseases (for instance, Batten's, Parkinson's, and Alzheimer's diseases, and other metabolic genetic disorders), demyelinating disorders (for instance, Multiple Sclerosis), spinal cord injuries, stroke, hepatitis, chronic liver failure, and diabetes. We believe that our stem cell technologies, if successfully developed, may provide the basis for effective therapies for these and other conditions. Our aim is to return patients to productive lives and significantly reduce the substantial health care costs often associated with these diseases and disorders. The body uses certain key cells known as stem cells to 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 fetal or adult tissue sources, and 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.

Many diseases, such as Alzheimer's, Parkinson's, and other degenerative diseases of the brain or 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 49 million people in the United States and account for more than $300 billion annually in health care costs.(1)

Our stem cell discovery engine relies upon our state of the art cell sorting capabilities and our library of proprietary monoclonal antibodies to human proteins. Using this library of monoclonal antibodies, we have successfully identified, purified, and characterized the human central nervous system stem cell. We have also used our proprietary monoclonal antibodies to make significant advances in our search for stem or progenitor cells of the liver and the pancreas. We have established an intellectual property position in all three areas of our stem cell research — the nervous system, the liver and the pancreas — by patenting our discoveries and entering into exclusive in-licensing arrangements. We believe that, if successfully developed, our platform of stem cell technologies may create the basis for therapies that would address a number of conditions with significant unmet medical needs. We are concentrating our in-house efforts on our neural and liver programs and, for the present, pursuing research on the pancreas primarily through an external collaborator.

Cell Therapy Background

Role of Cells in Human Health and Traditional Therapies

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. Impaired cellular function is associated with the progressive decline common to many degenerative diseases of the nervous system, such as Parkinson's disease and Alzheimer's disease. Recent advances in medical science have identified cell loss or impaired cellular function as leading causes of degenerative diseases. Biotechnology advances have led to the identification of some of the specific substances or proteins that are deficient in some diseases, such as dopamine which is deficient in the brains of individuals with Parkinson's disease as a result of

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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, University of Georgia College of Pharmacy, the Cincinnati Children's Hospital Medical Center, JAIDs, the American Liver Foundation, and the Parkinson's Action Network.

the loss of dopamine producing neurons. While administering these substances or proteins as medication does overcome some of the limitations of traditional pharmaceuticals such as lack of specificity, there is no existing technology that can deliver them to the precise sites of action and in the appropriate physiological regulation and quantities or for the duration required to cure the degenerative condition. Cells, however, can do this naturally. As a result, investigators have considered supplementing the failing cells that are no longer producing the needed substances or proteins by implanting stem or progenitor cells. Where there has been irreversible tissue damage or organ failure, transplantation of these stem or progenitor cells offers the possibility of generating new and healthy mature cells, thus potentially restoring the organ function and the patient's health.

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

We believe that, if successfully developed, stem cell-based therapy — the use of stem or progenitor cells to treat diseases — has the potential to provide a broad therapeutic approach comparable in importance to traditional pharmaceuticals and genetically engineered biologics.

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, the cells can often be obtained only through significant surgical procedures. The challenge, therefore, has been three-fold:

1) to identify the stem or progenitor cells of a particular organ;

2) to create techniques and processes that can be used to expand these rare cells in sufficient quantities for effective transplants; and

3) to establish a bank of normal human stem or progenitor cells that can be used for transplantation into individuals whose own cells are not suitable because of disease or other reasons.

We have discovered and patented the use of monoclonal antibodies to markers on the cell surface that identify the human central nervous system, or CNS, stem cells. This methodology allows us to purify the stem cell population and eliminate other unwanted cell types. We have also developed a process, based on a proprietary *in vitro* culture system in chemically defined media, that reproducibly grows normal human CNS, stem and progenitor cells. We believe this is the first reproducible process for growing normal human CNS stem cells. Together, these discoveries enable us to select normal human CNS stem cells and to expand them in culture to produce a large number of pure stem cells. This process facilitates the banking of large quantities of individual vials of these cells, which could then be used for distribution to transplant centers worldwide for administration to patients.

Because these cells have not been genetically modified, they may be especially suitable for transplantation and may provide a safer and more effective alternative to therapies that are based on cells derived from cancer cells, from cells modified by a cancer gene to make them grow, from an unpurified mixture of many different cell types, or from animal derived cells. We believe our proprietary stem cell technologies may be used to restore function by replacing specific cells that have been damaged or destroyed. In our research, we have shown that when human stem cells of the central nervous system are transplanted into animals, they are accepted, migrate, and successfully specialize to produce mature neurons and glial cells.

More generally, because the tissue-derived stem cell is the pivotal cell that produces all the functional mature cell types in an organ, we believe these cells, if successfully identified and developed for transplantation, may serve as platforms for five major areas of regenerative medicine and biotechnology:

- tissue repair and replacement,
- correction of genetic disorders,
- drug discovery and screening,

• gene discovery and use, and

• diagnostics.

We intend to research, develop, and commercialize the therapeutic uses of our stem and progenitor cells alone or in partnership with third parties. We also intend to monetize non-core uses of our stem cell technology, such as diagnostics, gene discovery and use, drug discovery and screening, by engaging in a number of non-exclusive agreements.

Our Stem Cell Technology Programs

Stem cells have two defining characteristics:

• some of the cells developed from stem cells produce all the kinds of mature cells making up the particular organ; and

• they self renew — that is, other cells developed from stem cells are themselves new stem cells, thus permitting the process to continue again and again.

Stem cells are known to or thought to exist for many systems of the human body, including the blood and immune system, the central and peripheral nervous systems (including the brain), and the liver, pancreas endocrine, and the skin systems. These cells are responsible for organ regeneration during normal cell replacement and, to greater or lesser extent, after injury. We believe that further research and development will allow stem cells to be cultivated and administered in ways that enhance their natural function, so as to form the basis of therapies that will replace specific subsets of cells that have been damaged or lost through disease, injury or genetic defect.

We also believe that the person or entity that first identifies and isolates a stem cell and defines methods to culture any of the finite number of different types of human stem cells will be able to obtain patent protection for the methods and the composition, making the commercial development of stem cell treatment and possible cure of currently intractable diseases financially feasible.

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 commercial importance. 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. In rodents, we have shown that these cells exhibit the unique properties of stem cells: They migrate and colonize throughout the organ from which they were derived and mature into the specialized cells, such as neurons and glial cells, that are normally found in that region of the organ. We also have patent applications pending in connection with our search for liver and pancreas stem and progenitor cells.

We have published the results of a study showing that human central nervous system stem cells can be successfully isolated by markers present on the surface of freshly obtained brain cells. We believe this is the first reproducible process for isolating highly purified populations of well-characterized normal human central nervous system stem cells. We own or have exclusive licenses to U.S. patents on this process, as well as issued patents and pending patent applications for compositions of matter. Because the cells are highly purified and have not been genetically modified, they may be especially suitable for transplantation and may provide a safer and more effective alternative than therapies that are based on cells derived from cancer cells, or from cells modified by a cancer gene to make them grow, or from an unpurified mixture of many different cell types or cells derived from animals. We are the exclusive licensee of a U.S. patent issued in December, 2002, covering the transplantation of central nervous system stem cells (U.S. Patent No. 6,497,872, “Neural transplantation using proliferated multipotent neural stem cells and their progeny”). We have also filed patent applications covering the growth and expansion of these purified normal human central nervous system cells.

In 2001, we also announced the results of a new study (published in 2002) in which we used novel human specific monoclonal antibodies to demonstrate the extent of engraftment, migration and site-specific formation of the human neural stem cells into mature neurons. These neuronal cells integrate in a 3-dimensional array

within the normal architecture of the mouse brain. Astrocytes and oligodendrocytes, the other two principle types of central nervous system cells, are also generated from the human neural stem cells.

In 2003, we announced results of three preclinical studies showing proof of principle of the human CNS-SC for a neurodegenerative disease using the mouse model for Infantile Batten Disease (a rare lysosomal storage disease), for spinal cord injury using a spinal cord crush mouse model and for myelination in the shiverer mouse model.

Neurological disorders such as Parkinson's disease, Alzheimer's disease, the side effects of stroke, and the mental retardation that accompanies genetic disorders such as Gaucher's Disease, Tay-Sachs Disease, and Batten's Disease affect a significant portion of the U.S. population and there currently are no effective long-term therapies for them. We believe that therapies 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.

We have demonstrated in a mouse model for the Batten disease mouse model that the Company's human CNS-SC engraft, migrate throughout the brain and produce the enzyme that is missing in this transgenic mouse. The transplanted human cells are able to neuroprotect specific neurons, in the transgenic mouse, from death and quantitatively reduce the insoluble storage material in the brain, a characteristic hallmark of this disease. The Company has submitted these results to the FDA and held formal discussions with the FDA pertaining to the filing of an IND for Batten Disease.

The Company has also obtained and presented preclinical results in spinal cord injury. A preclinical study in mice by Drs. Aileen Anderson and Brian Cummings of the Reeve-Irvine Center at the University of California showed promising results using the Company's proprietary human neural stem cell technology as a potential means to regenerate damaged nerves and nerve fibers in patients with spinal cord injuries. In quantitative tests designed to measure functional recovery from complete hind limb paralysis to normal walking, the Company's researchers reported that injured mice transplanted with the Company's human neural stem cells (hCNS-SC) 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. Previously, injured rats have been given stem cells from other rats or mice, but not stem cells from humans. The performance of the human cells in this rodent injury model suggests the possibility that similar results may be obtainable in humans. We believe that the significance of this study is that there is now hope in treating two aspects of spinal cord injury: nerve damage and loss of motor function.

In November 2003, the Company presented data at the 33rd Annual Society for Neuroscience Meeting showing production of myelin, the insulator for nerve cells. In the mutant shiverer mouse, which is deficient in myelin production, transplantation of hCNS-SC into the brain resulted in widespread engraftment of human cells that matured into oligodendrocytes, the myelin producing cells. Analysis of the brain tissue of these mice shows the human cells juxtaposed to the mouse nerves where the myelin produced by the human cells now ensheath the mouse nerve, providing the proper layers of insulation. Further studies are in progress to demonstrate proper function of the newly produced myelin. Loss of myelin characterizes conditions such as spinal cord injury, multiple sclerosis and certain genetic disorders (for example, Krabbe's disease, metachormatic leukodystrophy, Tay Sachs disease).

We continue to advance our research programs to discover the liver and pancreas stem and/or progenitor cells. Liver stem cells may be useful in the treatment of diseases such as hepatitis, liver failure, blood-clotting disorder, cirrhosis of the liver and liver cancer. Islet cells are the pancreas cells that produce insulin, so pancreatic stem cells may be useful in the treatment of Type 1 diabetes and those cases of Type 2 diabetes where insulin secretion is defective.

An important element of our stem cell discovery program is the further development of intellectual property positions with respect to stem and progenitor cells. We have also obtained rights to certain inventions relating to stem cells from, and are conducting stem cell related research at, several academic institutions. We

expect to expand our search for new stem and progenitor cells and to seek to acquire rights to additional inventions relating to stem and progenitor cells from third parties.

Expected Advantages of Our Stem Cell Technology

1. No Other Treatment

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 sites, 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. We believe that our stem cell technologies have the potential to reestablish function in at least some of the patients who have suffered the losses referred to above.

2. Replaced Cells May Provide Normal Function for the Life of the Patient

Because stem cells can duplicate themselves, or self-renew, and specialize into the multiple kinds of cells that are commonly lost in various diseases, transplanted stem cells may be able to migrate limited distances to the proper location within the body, to expand and specialize and to replace damaged or defective cells, facilitating the return to proper function. We believe that such replacement of damaged or defective cells by functional cells is unlikely to be achieved with any other treatment.

3. Stem Cell Therapy Targets the Root Cause of the Disease

Most approved therapies for the diseases being targeted by the Company are palliative in nature, primarily treating the symptoms of the disease. Stem cell therapy, by contrast, has the potential to arrest or slow down the progression of the disease or even cure the patient.

Research and Development Programs

Overview of Strategy

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 lists the potential therapeutic indications for, and current status of, 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.

Research and Product Development Programs

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)	*Preclinical* • Demonstrated the ability to reproducibly identify and purify human neural stem cells (hCNS-SC). • Demonstrated the ability to create human neural stem cell banks. • 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 in rodent studies that transplanted 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. • Commenced preclinical testing of human neural stem cells in well-characterized small animal models of human diseases. • *Batten's Disease Indication:* • Demonstrated *in vivo* proof of principle showing hCNS-SC can slow progression of neuro- degeneration in a genetic disease (Batten disease) • Presented pre-clinical data to the FDA at a pre-IND meeting. *IND filing planned for Q1 2005*. • *Spinal Cord Injury:* Demonstrated *in vivo* proof of principle that transplanted cells show preferential migration towards injured sites • *Stroke Indication:* Demonstrated *in vivo* proof of principle shows functional integration of myelin onto the mouse nerve axons.
Liver Stem Cell Repair or replace liver tissue damaged or destroyed by cirrhosis and certain metabolic genetic diseases	*Research* • Identified a candidate human liver stem cell-like population referred to as a human liver engrafting cell (hLEC). • Identified *in vitro* culture assay for growth of human liver progenitor cells that express markers for both bile duct cells and hepatocytes

Program Description and Objective	Stage/Status(1)
	• Shown that the *in vitro* culture of human liver progenitor cells also can grow human hepatitis virus; this is a potential assay system to screen for novel anti-viral compounds. • Demonstrated the engraftment and survival of the candidate human LEC in an *in vivo* mouse model. • Detected human albumin in mouse serum in animals transplanted with hLECs.
Pancreas Islet Stem Cell	*Research*
Repair or replace damaged pancreas islet tissue	• Identified markers on the surface of a rare population of human pancreatic stem cell-like population, a candidate pancreatic stem/progenitor cell. • Identified a human insulin-producing -cell. • Commenced testing of a candidate murine pancreatic stem/progenitor cell *in vitro* and *in vivo* in small animal model. • Commenced testing of a candidate human pancreatic stem/progenitor cell *in vivo* in small animal models

(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.

Our portfolio of stem cell technology results from our exclusive licensing of central nervous system, stem and progenitor cell technology, animal models for the identification and/or testing of stem and progenitor cells and our own research and development efforts to date. We believe that therapies using stem cells represent a fundamentally new approach to the treatment of diseases caused by lost or damaged tissue. We have assembled an experienced team of scientists and scientific advisors to consult with and advise our scientists on their continuing research and development of stem and progenitor cells. This team includes founding scientists Irving L. Weissman, M.D., of Stanford University, Fred H. Gage, Ph.D., of The Salk Institute, and David Anderson, Ph.D., of the California Institute of Technology, as well as other occasional consultants including William C. Mobley, M.D., Ph.D., Ben Barres, Ph.D., and Seung Kim, M.D., Ph.D., all of Stanford University.

Neural Program

We began our work with central nervous system stem and progenitor cell cultures in collaboration with NeuroSpheres, Ltd., in 1992. We believe that NeuroSpheres was the first to invent these cultures. We are the exclusive, worldwide licensee from NeuroSpheres to such inventions and associated patents and patent applications for all uses, including transplantation in the human body, as embodied in these patents. See "NeuroSpheres Ltd." under "License Agreements" below.

In 1997, our scientists invented a reproducible method for growing human CNS stem and progenitor cells in culture. In preclinical *in vivo* and early *in vivo* studies, we demonstrated that these cells specialize into all three of the cell types of the central nervous system. Because of these results, we believe that these cells may form the basis for replacement of cells lost in certain degenerative diseases. We are continuing research into, and have initiated the development of, our human CNS stem and progenitor cell cultures. We have initiated the cultures and demonstrated that these cultures can be expanded for a number of generations *in vivo* in chemically defined media. In collaboration with Dr. Anders Bjorklund of Lund University, Sweden, that cells from these cultures can be successfully transplanted and accepted into the brains of rodents where they subsequently migrated and specialized into the appropriate cell types for the site of the brain into which they were placed.

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

In 2000, using our proprietary markers on the surface of the cell, our researchers succeeded in identifying, isolating and purifying human CNS stem cells from brain tissue. We believe that this was the first study to show a reproducible process for isolating highly purified populations of well-characterized normal human CNS stem cells. Because the cells are normal human CNS stem cells and have not been genetically modified, they may be especially suitable for transplantation and may provide a safer and more effective alternative to therapies that are based on cells derived from cancer cells or from an unpurified mix of many different cell types, or from animal derived cells. Even more importantly, in our view, our researchers have been able to take these purified and expanded stem cells and transplant them into the normal brains of immunodeficient mouse hosts, where they take hold and grow into neurons and glial cells.

During the course of this long-term study, the transplanted human CNS stem cells survived for as long as one year and migrated to specific functional domains of the host brain, with *no sign* of tumor formation or adverse effects on the animal recipients; moreover, the cells were still dividing. These findings show that when CNS stem cells isolated and cultured with our proprietary processes are transplanted, they adopt the characteristics of the host brain and act like normal stem cells. In other words, the study suggests the possibility of a continual replenishment of normal human brain cells.

The company has established a number of research collaborations in the neural field to assess the effects of transplanting the human CNS stem cells into preclinical animal models, including the spinal cord injury collaboration with Drs. Aileen Anderson and Brian Cummings of the Reeve-Irvine Center at the University of California and a collaboration with Dr. Gary Steinberg, Chairman of the Department of Neurosurgery of Stanford University School of Medicine and Co-director of the Stanford Stroke Center, pertaining to the evaluation of our human neural stem cells in animal models of stroke.

As noted above, human CNS stem and progenitor cells harvested and purified and expanded using our proprietary processes may be useful for creating therapies for the treatment of degenerative brain diseases such as Batten Disease and other genetic disorders affecting the brain, Parkinson's and Alzheimer's diseases. These conditions affect about 5 million people in the United States and there are no effective long-term therapies currently available. We believe the ability to purify human brain stem cells directly from fresh tissue is important because:

- it provides an enriched source of normal stem cells, not contaminated by other unwanted or diseased cell types, that can be expanded in culture without fear of also expanding some unwanted cell types;

- it opens the way to a better understanding of the properties of these cells and how they might be manipulated to treat specific diseases. For example, in certain genetic diseases such as Tay Sachs and Batten's, a key metabolic enzyme required for normal development and function of the brain is absent. Brain-derived stem cells might produce enough enzyme after transplantation to degrade the toxic product build-up, or, if not enough enzyme is made naturally, the cells might be genetically modified to produce those proteins. The native or modified brain stem cells could be transplanted into patients with these genetic diseases;

- the efficient acceptance of these non-transformed normal human stem cells into host brains means that the cell product can be tested in animal models for its ability to correct deficiencies caused by various human neurological diseases. This technology could also provide a unique animal model for the testing of drugs that act on human brain cells either for effectiveness of the drug against the disease or its toxicity to human nerve cells.

Liver Program

We initiated our discovery work for the liver stem and progenitor cell through a sponsored research agreement with Markus Grompe, Ph.D., of Oregon Health Sciences University. Dr. Grompe's work focuses on the discovery and development of a suitable method for identifying and assessing liver stem and progenitor cells for use in transplantation. We have also obtained rights to a novel mouse model of liver failure for

evaluating cell transplantation developed by Dr. Grompe: The "FAH transgenic mouse". This mouse lacks a key enzyme (FAH, or fumaryl-acetoacetate hydrolase), which results in build-up of a toxic substance which causes liver damage. In addition, we obtained an exclusive license to U.S. Patent No. 6,132,708, claiming a method of regenerating a functional liver by transplantation of pancreas cells in mammals, including humans.

Approximately 1 in 10 Americans suffers from diseases and disorders of the liver for many of which there are currently no effective, long-term treatments. Our researchers continue to advance methods for establishing enriched cell populations suitable for transplantation in preclinical animal models. We are focused on discovering and utilizing proprietary methods to identify and isolate liver stem and progenitor cells and to evaluate these cells in culture and in preclinical animal models.

The Company focuses on discovering and utilizing proprietary methods to identify and isolate liver stem and progenitor cells and to evaluate these cells in culture and in preclinical animal models. The Company intends to use these advanced methods, as they become available, to establish enriched cell populations suitable for transplantation.

StemCells has devised a culture assay that it uses in its efforts to identify liver stem and progenitor cells. In addition, the culture assay can support the growth of an early human liver bipotent progenitor cell — a cell that can develop into two kinds of mature liver cells: bile duct cells and hepatocytes. Further, since cells in this culture can be infected with human hepatitis virus, it provides a valuable system for study of the virus. This technology also could provide a unique in vitro model for the testing of drugs that act on, or are metabolized by, human liver cells.

The Company's scientists have identified proprietary monoclonal antibodies that enrich for distinct subsets of human liver cells, including a candidate human liver stem-like cell that the Company refers to as a human liver engrafting cell (hLEC). When tested in the Company's in vitro culture assay, these antibody-enriched cells produce human serum albumin, a measure of hepatocyte generation. Studies to date show that these hLECs can produce of human serum albumin in mouse serum following transplantation into immunodeficient mice, suggesting that the human liver-engrafting cell, once transplanted, becomes a functional cell. The program will focus on demonstrating the robust engraftment and function of these hLECs in a preclinical animal model of liver degeneration for proof of principle of a therapeutic cell for liver disease. 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 liver transplants. An in vitro culture system that can reproducibly grow human liver progenitor cells might also provide cells for genetic modification to correct inborn errors of metabolism.

Pancreas Program

The Company's scientists have again used StemCells' monoclonal antibody-based search engine to identify a rare subset of human pancreatic cells that may be candidate pancreatic stem/progenitor cells. The Company has filed a patent application on these critical monoclonal antibodies. For the present, the Company is not pursuing its pancreas program in-house. In 2002, the Company established a collaboration with Dr. Seung Kim of Stanford University to pursue other avenues to identify an insulin-producing cell. Dr. Kim's laboratory is studying the developmental biology and controlling events of generating insulin-producing cells. We believe this may lead to the development of cell-based treatments for Type 1 diabetes and that portion of Type 2 diabetes characterized by defective secretion of insulin.

The Company has an exclusive, worldwide license from The Scripps Research Institute (Scripps), to novel technology developed by Dr. Nora Sarvetnick, Ph.D., which may facilitate the identification and isolation of those cells by using a mouse model that continuously regenerates the pancreas. U.S. Patent Number 6,242,666 was issued on the animal model on June 5, 2001. We believe that stem cells produce the regeneration, in which case this animal model may be useful for identifying specific markers on the cell surface unique to the pancreas stem cells. We also obtained licenses from Scripps to novel markers on the cell surface identified by Dr. Sarvetnick and her research team as being unique to the pancreas islet stem cell; a U.S. patent has issued on certain of the markers, and another US patent applications has been allowed. The issued patent covers a unique gene that is expressed on regenerating mouse pancreas cells. Antibodies to the

protein encoded by this gene have been generated and used to enrich for cell populations expressing this marker for testing in vitro and in animal models.

Subsidiary

StemCells California, Inc.

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., David J. Anderson, Ph.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.

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), and the Oregon Health Sciences University (OHSU), the University of Texas Medical Branch (UTMB), and the University of California — Irvine (UC-I). The research components of the UTMB and UC-I agreements are in progress, but those with the other institutions mentioned have been concluded and have resulted in a number of license agreements 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 and our acquisition of our wholly owned subsidiary, StemCells California, we issued 14,513 shares of our common stock to Cal Tech. We 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. We must pay an additional $10,000 upon the issuance of the patent licensed to us under the relevant agreement and $5,000 on the first anniversary of the issuance of the patent licensed to us under the relevant agreement. 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.

Pursuant to the terms of the license agreement with OHSU and our acquisition of StemCells California, we issued 4,838 shares of our 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 we issued 4,000 shares of our common stock, with a market value of approximately $3,900, to OHSU in January 2003, pursuant to an amendment to the license agreement.

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, we issued a non-exclusive license to StemCell Technologies, Inc., a Canadian corporation, to make, use and sell certain proprietary mouse and rat neural stem cells and culture media for all mammalian neural stem cells, also for the research market. These licenses are not expected to generate material revenues.

Signal Pharmaceuticals, Inc.

In December 1997, we entered into two license agreements with Signal Pharmaceuticals (Signal), Inc. under which each party licensed to the other certain patent rights and biological materials for use in defined fields. Signal has now been acquired by Celgene. Each agreement with Signal will terminate at the expiration of all patents licensed under it, but the licensing party can terminate earlier if the other party breaches its obligations under the agreement or declares bankruptcy. Also, the party receiving the license can terminate the agreement at any time upon notice to the other party. Under these agreements, we must reimburse Signal for payments it must make to the University of California based on products we develop and for 50% of certain other payments Signal must make.

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 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, due when the product candidate enters pre-clinical development in a non-rodent model. We expect to reach this milestone in 2004 with respect to a potential treatment for Batten's disease. In addition, we will make annual payments of $50,000 a year to NeuroSpheres beginning in 2004; 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 manufacture of cells under FDA-determined clinical Good Manufacturing Practices conditions in quantities sufficient for clinical trials, and we have developed a robust and replicable process for producing and processing the cells. We are at the pre-clinical stage of our stem and progenitor cell programs, and are keeping all options open about the means by which potential future cell products will be manufactured.

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 thirty-nine issued U.S. patents, four of which issued in 2003. Approximately forty additional patent applications are pending, two of which have been allowed. In addition, we have foreign counterparts to many of the U.S. applications and patents; the counterparts to eleven of our U.S. patents or applications have issued in various countries, making a total of ninety-five individual non-U.S. patents from those eleven cases. One party has recently opposed two of our issued European patent cases. While we are confident that we will overcome the opposition, there is no guarantee that we will prevail. If we are 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.

In December 1998, the US Patent and Trademark Office granted Patent No. 5,851,832, covering 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 covers our composition of matter for human CNS stem cells, was granted in 1999, and U.S. Patent No. 6,103,530, covering our media for culturing human CNS stem cells, was granted in 2000.

In 2002, the U.S. Patent Office issued a key strategic patent to us: 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.” The patent issued on October 22, 2002 and covers the identification and purification of the human CNS stem cell. In 2001, we were granted 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 these two patents together will augment our leadership position in the stem cell field by providing a reproducible proprietary method for obtaining and expanding stem cells for therapeutic uses.

Another significant patent in the neural field, of which we are the exclusive licensees, was also issued in 2002, and, we believe, may prove even more important: We believe that U.S. Patent Number 6,497,872, entitled “Neural transplantation using proliferated multipotent neural stem cells and their progeny,” covers 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. The patent gives us the right to exclude others from practicing the claimed invention.

In 2003, two neurogenin-related patents were issued (U.S. Patents Numbers 6,555,337 and 6,566,496) as well as U.S. Patent Number 6,638,501, covering the use of multipotent neural stem cell progeny to augment non-neural tissues and U.S. Patent Number 6,541,251, covering a novel pancreatic progenitor gene and its uses.

These new patents, together with 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”), which issued September 25, 2001,

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 and published international patent applications:

U.S. Patent Number	Subject
Owned by StemCells	
5,968,829	Human CNS neural stem cells
6,103,530	Human CNS neural stem cells — culture media
6,238,922	Use of collagenase in the preparation of neural stem cell cultures
6,468,794	Enriched neural stem cell populations, and methods for identifying, isolating and enriching for neural stem cells
6,498,018	Human CNS neural stem cells
Licensed from NeuroSpheres	
5,750,376	In vitro genetic modification
5,851,832	In vitro proliferation
5,980,885	Methods for inducing in vivo proliferation of precursor cells
5,981,165	In vitro production of dopaminergic cells from mammalian central nervous system multipotent stem cell compositions
6,071,889	Methods for in vivo transfer of a nucleic acid sequence to proliferating neural cells)
6,093,531	Generation of hematopoietic cells from multipotent neural stem cells
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
6,399,369	cDNA libraries derived from populations of non-primary neural cells
6,497,872	Neural transplantation using proliferated multipotent neural stem cells and their progeny
6,638,501	Use of multipotent neural stem cell progeny to augment non-neural tissues
Licensed from University of California, San Diego	
5,766,948	Method of production of neuroblasts
6,013,521	Method of production of neuroblasts
6,020,197	Method of production of neuroblasts
6,045,807	Method of production of neuroblasts
6,265,175	Method of production of neuroblasts

	Subject
Licensed from the California Institute of Technology	
5,589,376	Mammalian neural crest stem cells
5,629,159	Immortalization and disimmortalization of cells
5,654,183	Genetically engineered mammalian neural crest stem cells
5,672,499	Methods for immortalizing multipotent neural crest stem cells
5,693,482	In vitro neural crest stem cell assay
5,824,489	Methods for isolating mammalian multipotent neural crest stem cells
5,849,553	Immortalizing and disimmortalizing multipotent neural crest stem cells
5,928,947	Mammalian multipotent neural crest stem cells
5,935,811	Neuron restrictive silencer factor proteins
6,001,654	Methods for differentiating neural stem cells to neurons or smooth muscle cells (TGFb)
6,033,906	Differentiating mammalian neural stem cells to glial cells using neuregulins
6,270,990	Neuron restrictive silencer factor proteins
6,555,337	Neurogenin
6,566,496	Neurogenin
Licensed from the Scripps Research Institute	
6,242,666	An animal model for identifying a common stem/ progenitor to liver cells and pancreatic cells
6,541,251	Pancreatic progenitor 1 gene and its uses
Licensed from Oregon Health Sciences University	
6,132,708	Liver regeneration using pancreas cells
Published International Patent Applications	
Owned by StemCells	
WO 99/11758	Cultures of human CNS neural stem cells
WO 00/47762	Enriched neural stem cell populations and methods of identifying, isolating, and enriching neural stem cells
WO 00/50572	Use of collagenase in the preparation of neural stem cell cultures

	Subject
Licensed from NeuroSpheres	
WO 93/01275	Mammalian central nervous system multipotent stem cell compositions
WO 94/09119	Remyelination using mammalian central nervous multipotent stem cell compositions
WO 94/10292	Biological factors useful in differentiating mammalian central nervous system multipotent stem cell compositions
WO 94/16718	Genetically engineered mammalian central nervous system multipotent stem cell compositions
WO 95/13364	In situ modification and manipulation of stem cells of the CNS
WO 96/15224	In vitro production of dopaminergic cells from mammalian central nervous system multipotent stem cell composition
WO 99/16863	Generation of hematopoietic cells
WO 99/21966	Erythropoietin-mediated neurogenesis
Licensed from University of California, San Diego	
WO 94/16059	Method of production of neuroblasts
Licensed from the California Institute of Technology	
WO 94/02593	Mammalian neural crest stem cells
WO 00/52143	Isolation and enrichment of neural stem cells from uncultured tissue based on cell-surface marker expression
WO 96/27665	Neuron restrictive silencer factor proteins
WO 96/40877	Immortalization and disimmortalization of cells
WO 98/48001	Methods for differentiating neural stem cells to neurons or smooth muscle cells using TGF-ß super family growth factors
Licensed from The Scripps Research Institute	
WO 00/36091	An animal model for identifying a common stem/progenitor to liver cells and pancreatic cells

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 Sciences 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.

One party has recently opposed two of our issued European patents. While we are confident that we will overcome the opposition, there is no guarantee that we will prevail. If we are 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.

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. We are aware that a number of companies have filed applications relating to stem cells. We are also aware of a number of patent applications and patents claiming use of genetically modified cells to treat disease, disorder or injury. We are aware of two patents issued to a competitor claiming certain methods for treating defective, diseased or damaged cells in the mammalian CNS by grafting genetically modified donor cells from the same mammalian species.

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 technology. If we are unable to obtain such licenses 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 disputed rights to be licensed 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 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.

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 product and animal studies in specific disease models to assess the potential safety and efficacy of the product and our formulation as well as the quality and consistency of the manufacturing process.
2. Submission to the FDA of an application for an Investigational New Drug Exemption, or IND, which must become effective before U.S. human clinical trials may commence	The results of the preclinical tests are submitted to the FDA as part of an IND, and the IND becomes effective 30 days following its receipt by the FDA, as long as there are no questions, requests for delay or objections from the FDA.
3. Adequate and well-controlled human clinical trials to establish the safety and efficacy of the product	Clinical trials involve the evaluation of the product in healthy volunteers or, as may be the case with our potential products, in a small number of patients under the supervision of a qualified physician. Clinical trials are conducted in accordance with protocols that detail the objectives of the study, the parameters to be used to monitor safety and the efficacy criteria to be evaluated. Any product administered in a U.S. clinical trial must be manufactured in accordance with clinical Good Manufacturing Practices, or cGMP, determined by the FDA. 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, or IRB, at the institution at which the study is conducted and the informed consent of all participants must be obtained. The IRB will consider, among other things, the existing information on the product, ethical factors, the safety of human subjects, the potential benefits of the therapy and the possible liability of the institution. Clinical development is traditionally conducted in three sequential phases, which may overlap: In Phase I, products are typically introduced into healthy human subjects or into selected patient populations to test for adverse reactions, dosage tolerance, absorption and distribution, metabolism, excretion and clinical pharmacology.

Steps	Considerations
	Phase II involves studies in a limited patient population to (i) determine the efficacy of the product for specific targeted indications and populations, (ii) determine optimal dosage and dosage tolerance and (iii) identify possible adverse effects and safety risks. When a dose is chosen and a candidate product is found to be effective and to have an acceptable safety profile in Phase II evaluations, Phase III trials begin. Phase III trials are undertaken to conclusively demonstrate clinical efficacy and to test further for safety within an expanded 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) requirement. 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 types of products from being approved for the same use including, in some cases, slight variations on the originally designated orphan product.

Proposed FDA Regulations

Our research and development is based on the use of human stem and progenitor cells. The FDA has published a "Proposed Approach to Regulation of Cellular and Tissue-Based Products" which relates to the use of human cells. 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. These products specifically include hematopoietic stem cells (stem cells that are progenitors of blood cells); however, the FDA makes no explicit statement regarding the inclusion of other types of stem cells. In addition, the FDA has published proposed rules for making suitability determinations for donors of cells and tissue and for current good tissue practice for manufacturers using them. We cannot now determine the full effects of this regulatory initiative, including precisely how it may affect the clarity of regulatory obligations and the extent of regulatory burdens associated with pluripotent stem cell research (for stem cells that give rise to various tissue types, including blood), 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 high tech 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 level 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. For example, 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, 2003, we had twenty-seven full-time employees, of whom nine have Ph.D. degrees. Twenty-one 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 provide us with strategic guidance in regard to our research and product development programs, as well as assistance in recruiting employees and collaborators. Each Scientific Advisory Board 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 Scientific Advisory Board 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 Scientific Advisory Board 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 arrangement if we determine that there is such a conflict. Members of the Scientific Advisory Board offer consultation on specific issues encountered by us as well as general advice on the directions of appropriate scientific inquiry for us. In addition, Scientific Advisory Board members assist us in assessing the appropriateness of moving our projects to more advanced stages. The following persons are members of our Scientific Advisory Board:

— Irving L. Weissman, M.D., is the Karel and Avice Beekhuis Professor of Cancer Biology, Professor of Pathology and Professor of Developmental Biology at Stanford University, Stanford California, and Director of the Stanford University Institute for Cancer/Stem Cell Biology and Medicine. 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. Past achievements of Dr. Weissman's laboratory include identification of the states of development between stem cells and mature blood cells and identification of the states of thymic lymphocyte development. More recently, 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. Dr. Weissman has been elected to the National Academy of Science. He has received the Kaiser Award for Excellence in Preclinical Teaching, the Pasarow Foundation Award, and the Outstanding Investigator Award from the National Institutes of Health.

— David J. Anderson, Ph.D., is 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 a glial cell rather than a neuron. Dr. Anderson is a co-founder of StemCells and a member of its SAB. 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, and the 1999 W. Alden Spencer Award in Neurobiology from Columbia University.

— 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 the mammalian central nervous

system stem cell. 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 a member of its SAB. 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 Prize, and the Pasarow Foundation Award. In 2003, Professor Gage was elected to the National Academy of 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 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 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 Good Manufacturing Practices suite, signifying that the facility can be used to manufacture materials for clinical trials. 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 space-sharing agreements for part of the animal facility not needed for our own use, including one with Stanford University.

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 facility. We have also subleased approximately one-fourth of the 62,500 square foot facility. We are actively seeking to sublease, assign or sell our remaining interests in these properties.

Item 3. ***Legal Proceedings***

None.

Item 4. ***Submission of Matters to a Vote of Security Holders***

None.

PART II

Item 5. ***Market for Registrant's Common Equity and Related Stockholders Matters***

The common stock of StemCells is traded on the SmallCap Market System of NASDAQ under the Symbol STEM. Prior to December 23, 2002 our common stock was traded on the NASDAQ National

Market. The quarterly ranges of high and low bid prices for the last two fiscal years as reported by NASDAQ are shown below:

	High	Low
2003		
First Quarter	$1.48	$0.85
Second Quarter	$2.85	$0.65
Third Quarter	$2.60	$1.16
Fourth Quarter	$3.12	$1.71
2002		
First Quarter	$3.84	$2.13
Second Quarter	$2.34	$1.41
Third Quarter	$2.07	$0.65
Fourth Quarter	$1.24	$0.51

No cash dividends have been declared on the Company common stock since the Company's inception.

As of March 17, 2004, there were approximately 451 holders of record of the common stock.

By agreement with one of the Company's 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.

Equity Compensation Plan Information

The following table provides certain information with respect to all of the Company's equity compensation plans in effect as of the end of December 31, 2003.

Equity Compensation Plan Information

Plan Category	(A) Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	(B) Weighted-average Exercise Price of Outstanding Options, Warrants and Rights	(C) Number of Securities Remaining Available for Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (A))
Equity compensation plans approved by security holders	5,025,374(1)	$2.91	958,631
Equity compensation arrangements not approved by security holders	396,699(2)	$2.51	N/a
Totals	5,422,073	$2.88	958,631

(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 Equity Incentive Plan.

(2) Consists of warrants outstanding that are fully vested to purchase:

— 50,500 shares of our common stock for $5.04 per share, issued in August 2000, and exercisable, in whole or in part, for five years from the date of issuance.

— 146,199 shares of our common stock that was issued in December 2001 fully vested with an exercise price of $3.42 per share and exercisable, in whole or in part, for four years from the date of issuance.

— 200,000 shares of our common stock that was issued in January 2003 fully vested with an exercise price of $1.20 per share and exercisable, in whole or in part, for five years from the date of issuance.

These warrants, which constitute the equity compensation arrangements not approved by security holders, were all issued in exchange for placement agent or advisory services by non-employees.

Item 6. ***Selected Financial Data***

The following selected historical information has been derived from the audited financial statements of the Company. The financial information as of December 2003 and 2002 and for each of the three years in the period ended December 31, 2003 are derived from audited financial statements included elsewhere in this Form 10-K.

	Year Ended December 31,				
	2003	2002	2001	2000	1999
		Restated(3)	Restated(3) (In thousands, except per share amounts)		
Consolidated Statement of Operations					
Revenue from collaborative and licensing agreements	$ 18	$ 40	$ —	$ 74	$ 5,022
Revenue from grants	255	375	505	—	—
Revenue from assignment of rights to technology	—	—	300	—	—
Total revenue	273	415	805	74	5,022
Research and development expenses	6,144	7,382	8,603	5,979	9,984
Encapsulated Cell Technology (ECT) wind-down and corporate relocation(1)	2,885	1,164	575	3,327	6,048
Loss before preferred dividends and cumulative effect of change in accounting principle	(12,291)	(11,644)	(4,021)	(11,125)	(15,709)
Net loss applicable to common shareholders	(14,425)	(13,276)	(5,567)	(11,606)	(15,709)
Basic and diluted loss available to common shareholders before cumulative effect of an accounting change per share	$ (0.45)	$ (0.53)	$ (0.25)	$ (0.57)	$ (0.84)
Cumulative effect of a change in accounting principle	—	—	—	(0.01)	—
Net loss applicable to common shareholders	$ (0.45)	$ (0.53)	$ (0.25)	$ (0.58)	$ (0.84)
Shares used in computing basic and diluted per share amounts	32,080	25,096	22,242	20,068	18,706

	December 31,				
	2003	2002	2001	2000	1999
		Restated(3)	Restated(3) (In thousands)		
Consolidated Balance Sheet					
Cash and cash equivalents	$13,082	$ 4,236	$13,697	$ 6,069	$ 4,760
Restricted investments	—	—	—	16,356	—
Total assets	19,786	11,329	20,803	29,795	15,781
Long-term debt, including capital leases	1,850	2,087	2,316	2,605	2,937
Redeemable common stock	—	—	—	—	5,249
Redeemable preferred stock(2)	—	2,660	2,663	1,283	5,249
Stockholders' equity	10,964	1,933	12,633	21,699	3,506

(1) See footnote 9 in the consolidated financial statements

(2) See footnote 11 in the consolidated financial statements

(3) See footnote 1 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, such as failure to obtain a corporate partner or partners to support the development of our stem cell programs, our ability to sell, assign or sublease our interest in our facilities related to our encapsulated cell technology program, risks of delays in, or adverse results from, our research, development and clinical testing programs, obsolescence of our technology, lack of available funding, competition from third parties, intellectual property rights of third parties, failure of our collaborators to perform, regulatory constraints, litigation and other risks to which we are subject. See "Cautionary Factors Relevant to Forward-Looking-Information" filed herewith as Exhibit 99 and incorporated herein by reference.

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.

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 anticipate filing our first IND, to evaluate the safety and efficacy of our human neural stem cells as a treatment for Batten's disease, in the first quarter of 2005. This will require substantial expenditures for toxicology and other studies in preparation for submitting the IND to the FDA. 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. There are 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 2001, we entered into two significant financing arrangements: In May, we entered into an equity line enabling us to draw up to $30,000,000 subject to various restrictions, and we did draw down $4,000,000 in July of 2001, $118,000 in December of 2002, $66,000 in January of 2003 and $375,000 in May of 2003. This agreement expired in January 2004. In December of 2001, we issued 3% convertible preferred stock to Riverview Group, L.L.C., (Riverview) a wholly-owned subsidiary of Millennium Partners, for $5,000,000 gross. The preferred stock was convertible into shares of the Company's stock and a mandatory feature required the Company to redeem unconverted preferred stock on December 4, 2003. By November 11, 2003, all of the 3% convertible preferred stock was converted into the Company's common stock. (See "Liquidity and Capital Resources" below for further detail on each of these transactions.)

In September 2002, in order to conserve cash and to concentrate all our resources on our primary goal of evaluating the potential of using our stem and progenitor cells to treat or even cure some of the world's most debilitating diseases, we announced that we had initiated a cost reduction program that curtailed expenditures on our discovery research activities in favor of channeling resources into accelerating preclinical development of our proprietary cells for the treatment of neural and liver disease. The initiative, which was implemented during the third quarter of 2002, reduced our workforce and annualized expenses by approximately 25% relative to 2001.

In May and again in December of 2003, the Company entered significant financing agreements with Riverview. In May, we 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 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. Riverview exercised its right to purchase 1,098,000 of those shares in November of 2003. In December, 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. (See "Liquidity and Capital Resources" below for further detail on these transactions.)

In September of 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. The grant is to fund a continuing collaborative endeavor between the Company and Drs. Aileen J. Anderson and Brian J. Cummings of the Reeve-Irvine Center at the University of California-Irvine, who earlier this year reported preclinical results using the Company's human neural stem cell (hCNS-SC). In the same month, the Company also entered a long-term license agreement with StemCell Technologies, Inc., a Canadian corporation, authorizing it to manufacture, use and sell certain proprietary mouse and rat neural stem cells, as well as culture media for all mammalian neural stem cells, for educational and research purposes worldwide.

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, we will need to hire more personnel, which will lead to higher operating expenses. We have already hired a Vice President of Development and contracted with an Acting Chief Medical Officer in preparation for our first clinical trial.

Our program in neural stem and progenitor cells ranges from the preclinical stage, as we focus increasingly on testing human neural stem cells in small animal models of human diseases, both in-house and through external academic collaborators, through the development phase with respect to the planned clinical trial in Batten's disease mentioned above. In our liver stem cell program, we are engaged in evaluating our proprietary liver engrafting cell in various *in vivo* assays. Our pancreas program research is being carried on for the present primarily through a collaborator. It is our intention to pursue the discovery and development of cell therapies useful in the treatment of Diabetes once we have secured a corporate partner.

Critical Accounting Policies

The Company believes the following critical accounting policies affect its more significant judgments and estimates used in the preparation of its 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 that 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 and valuation allowance against deferred tax assets.

Stock-Based Compensation

As permitted by the provisions of Statement of Financial Accounting Standards ("FAS") No. 148, "Accounting for Stock-Based Compensation — Transition and Disclosure," and Statement of Financial Accounting Standards No. 123, "Accounting for 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 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 difference between the exercise price and fair market value as compensation expense in accordance with APB 25. Note 11 of the Notes to the Consolidated Financial Statements describes our equity compensation plans, and Note 1 of the Notes to the Consolidated Financial Statements contains a summary of the pro forma effects to reported net (loss) and (loss) per share for 2003, 2002, and 2001 as if we had elected to recognize compensation cost based on the fair value of the options granted at grant date, as prescribed by FAS No. 123.

For certain stock options granted to non-employees, the Company accounts for these grants 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, recognizes as expense the estimated fair value of such options as calculated using the Black-Scholes valuation model, and is remeasured during the service period. Fair value is determined using methodologies allowable by FAS No. 123. The cost is amortized over the vesting period of each option or the recipient's contractual arrangement, if shorter.

Long-Lived Assets

The Company adopted FAS No. 144, "Accounting for the Impairment or Disposal of Long-lived Assets," at the beginning of 2002. As permitted by the transition rules of FAS No. 144, long-lived assets classified as held for sale as a result of activities that were initiated prior to this Statement's initial application shall continue to be accounted for in accordance with FAS No. 121. If however, the criteria for classifying long-lived assets held for sale under FAS No. 144 are not met by the end of the fiscal year in which this Statement is initially applied, the related long-lived assets shall be reclassified as held and used. At December 31, 2002, the criteria under FAS No. 144 for classifying the Company's long-lived assets held for sale were not met and accordingly, such assets were reclassified as held and used on the balance sheet.

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.

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.

Wind-down and Exit Costs

In connection with the Company's wind-down of its ECT operations, its research and manufacturing operations in Lincoln, Rhode Island, and the relocation of its remaining research and development activities and corporate headquarters, to California, in October 1999, the Company has provided a reserve for its

estimate of the exit cost obligation in accordance with EITF 94-3, "Liability Recognition for Certain Employee Termination Benefits and Other Cost to Exit an Activity." On an ongoing basis the Company will re-evaluate such reserve based on assumptions and experience relevant to the real estate market conditions for the facility. Such re-evaluation will include lease payments over the lease term, occupancy and sublease rental rates, and facility operating expenses. It is the intent of the Company to sublease, assign or sell its interest in the facility at the earliest possible time.

Effective with the adoption in 2003 of FAS NO. 146, "Accounting for Costs Associated with Exit or Disposal Activities," issued in June 2002, the Company will account for future restructuring and exit costs in accordance with FAS No. 146.

Results of Operations

Years Ended December 31, 2003, 2002 and 2001

Revenues totaled $273,000, $415,000, and $805,000 for the years ending December 31, 2003, 2002 and 2001, respectively. Revenues for 2003 include $143,000, which is part of the $342,000 Small Business Innovation Research Grant from the National Institute of Neurological Disease and Stroke, and $112,000 from the grant awarded by the National Institute of Diabetes & Digestive & Kidney Disorders (NIDDKD) of the National Institutes of Health. The Company does not intend to draw further funds from the NIDDKD grant since it will no longer pursue the particular research that the grant covered. addition, revenues for 2003 include $18,000 in licensing revenue. 2002 include $150,000 that is a part of the grant awarded by the National Institutes of Health's Small Business Innovation Research (SBIR) office, $225,000 from the NIDDKD grant, and $40,000 in licensing revenue. Revenues for Revenues for In 2001 include $505,000 for grants received from the National Institute of Health's Small Business Innovation Research (SBIR) office for research relating to our Neural & Liver stem cell programs, and $300,000 from the assignment to Modex Therapeutics, Ltd., of our retained rights to a portion of certain possible future revenues arising out of our sale of our former Encapsulated Cell Technology (ECT) to Neurotech, S.A. The decrease in revenue from 2001 to 2002 was primarily due to the one time receipt of $300,000 from the assignment of rights to Modex Therapeutics, Ltd., and a decrease in grant revenue from $505,000 in 2001 to $375,000 in 2002. The decrease in revenue from 2002 to 2003 was primarily due to the completion of the $150,000 SBIR grant in 2002, and to the only partial draw down in 2003 from the $225,000 NIDDKD grant.

Research and development expenses totaled $6,144,000 in 2003, as compared to $7,382,000 in 2002 and $8,603,000 in 2001. The decrease of 17% or $1,238,000 in 2003, was primarily attributable to the cost reduction program initiated in the last quarter of 2002 which resulted in a reduction in personnel and related expenses, reduction in expenditure on supplies and outside services, and a reduction in rent expense as a result of an amendment to the lease on our current facilities in California. This decrease in expenses in 2003 relative to 2002 was offset by the effect of a lower valuation in 2002 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 valuation such as stock price, stock price volatility, interest rate and remaining life of the option. The decrease of $1,221,000, or 14%, from 2001 to 2002 was primarily attributable to the effect of the lower valuation of stock options on non-employee compensation in 2002 as compared to 2001.

General and administrative expenses were $3,391,000 in 2003, compared with $3,359,000 in 2002 and $3,788,000 in 2001. The increase of $32,000 or 1%, from 2002 to 2003 was primarily attributable to the depreciation expense of our Rhode Island facility (Pilot plant building related to our former ECT research). No depreciation expense was recorded in 2002, as the assets were classified as held for sale. At December 31, 2002, the criteria under FAS No. 144 for classifying the Company's long-lived assets held for sale were not met and accordingly, such assets with a fair value of $3,203,491 at December 31, 2002 were reclassified as held and used on the balance sheet for all periods presented and are included in building and improvements. We resumed depreciating these assets effective January 2003. This increase in expense relative to 2002 was offset by a decrease in other expenses such as external services, facilities, information technology related expenses, all of which resulted from a cost reduction program initiated in the last quarter of 2002. The

decrease of $429,000, or 11%, from 2001 to 2002 was primarily attributable to a decrease in external services expenses in 2002.

In 1999 in connection with exiting our former corporate headquarters and ECT facilities we created a reserve for the estimated lease payments and operating expenses of the Rhode Island facilities through June 30, 2000, when we expected to fully sublease, assign or sell our remaining interests in the property. We did not fully sublet the Rhode Island facilities as expected and therefore made a change in estimate in June 2000 to accrue additional expenses of $3,327,000 to cover operating lease payments, utilities, taxes, insurance, maintenance, interest and other non-employee expenses through 2001. At December 31, 2001 the $3,327,000 reserve was exhausted and we recorded an additional reserve of $575,000. This reserve was based on information provided by our broker/realtor that estimated, based on assumptions relevant to the real estate market conditions as of the end of 2001, the time it would be likely to take until the facility would be fully sub-leased. In 2002, we incurred $964,000 in lease payments and operating expenses, net of subtenant income for this facility, of which $575,000 was booked against the reserve created at the end of 2001 and the remainder recorded as wind-down expenses. At the end of December 2002, based on an analysis of the real estate market conditions at that time, we revised the reserve to $775,000. In 2003 we incurred $984,000 in lease payments and operating expenses, net of subtenant income for this facility of which $775,000 was recorded against the reserve and the remainder recorded as wind-down expenses. After considering various factors such as the Company's experience in subleasing the facility since exiting the facility in 1999, our lease payments through to the end of the lease, facility operating expenses, the current real estate market in Rhode Island, and estimated subtenant income based on occupancy both actual and projected occupancy the Company revised the reserve at December 31, 2003 to $2,676,000. Even though it is the intent of the Company to sublease, assign or sell 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.

Interest income for the years ended December 31, 2003, 2002 and 2001 totaled $39,000, $109,000 and $201,000, respectively. The decrease in interest income from 2001 to 2003 was attributable to the lower interest rate on overnight and money market funds and a lower average bank balance.

In 2003, interest expense was $207,000, compared to $227,000 in 2002 and $246,000 in 2001. Interest expense for year 2001 was charged against the wind-down reserve, as the expense was part of the bond payments related to the Rhode Island facilities. The decrease from 2001 to 2003 was attributable to lower outstanding debt and capital lease balances.

Gain on sale of short-term investments in 2001 relates to the sale of Modex Therapeutics Ltd. ("Modex") shares. On January 9, 2001, we sold 22,616 Modex shares for a net price of 182.00 Swiss francs per share, which converted to $112.76 per share, for total proceeds and a realized gain of $2,550,000. On April 30, 2001, we sold our remaining shares in Modex for a net price of 87.30 Swiss Francs per share, which converted to approximately $50.51, for total proceeds and a realized gain of $5,232,000, net of commissions and fees. After the April 2001 sale, we no longer hold any shares of Modex.

Deemed Dividends Related to Convertible Preferred Stock

We recorded deemed dividends of $2,066,000, $1,280,000 and $1,546,000 for 2003, 2002 and 2001 respectively. The dividends are related to the 3% Cumulative Convertible Preferred Stock (see note 11 to the consolidated financial statements) which includes the accretion of common stock warrants, the accretion of the beneficial conversion feature and the accretion of related issuance costs. The aggregate accretion value associated with the warrants, beneficial conversion feature and issuance costs were included in the calculation of net loss applicable to common stockholders.

In 2000 we recorded an initial deemed dividend aggregating $481,000 related to the 6% Cumulative Convertible Preferred Stock (see note 11 to the consolidated financial statements). The dividend reflects the value of warrants issued and the beneficial conversion feature.

In 2001, we recorded an additional deemed dividend of $802,000 for the beneficial conversion feature of the 6% Cumulative Convertible Preferred Stock which resulted from the subsequent change to the effective conversion price of those shares due to the issuance in 2001 of adjustable warrants in connection with the common stock financing transaction with Millennium Partners, LP. (See Note 11 to the consolidated financial statements).

There is no longer any preferred stock outstanding as of December 31, 2003 as all of the Company's previously outstanding 3% and 6% cumulative convertible preferred stock was converted to the Company's common stock prior to the end of 2003.

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 $13,082,000 at December 31, 2003. Cash equivalents are invested in US Treasuries with maturities of less than 90 days. We used $8.6 million, $10.1 million, and $10.5 million of cash, in 2003, 2002 and 2001 respectively, in our operating activities. The decrease in cash used in operating activities from 2001 to 2003 was primarily due to a cost reduction program initiated in the last quarter of 2002 which included a reduction in head count and other operating expenses. In addition, we negotiated an amendment in our rent obligations under the lease on our current facilities in California which reduced our average annual rent over the remaining term of the lease from approximately $3.7 million to $2.0 million.

Our liquidity and capital resources were, in the past, significantly affected by our relationships with corporate partners, which were related to our former ECT. These relationships are now terminated, and we have not yet established corporate partnerships with respect to our stem cell technology. Our liquidity and capital resources have, in the past, also been affected by our holdings of Modex, all of which holdings have now been sold, resulting in proceeds to us of $7,782,000 in 2001.

On December 10, 2003 the Company 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 the Company's common stock on that date was $2.00 per share.

On May 7, 2003, the Company entered into a stock purchase agreement with Riverview under which it 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 is subject to adjustment for stock splits, dividends, distributions, reclassifications and similar events. In the event that certain conditions are 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 may require Riverview to exercise the warrant for any remaining shares or to relinquish any unexercised portion. On November 11, 2003, Riverview exercised part of the warrant acquiring 1,098,000 shares at $1.50 per share. The proceeds to the Company from this warrant exercise totaled $1,647,000. The warrant is exercisable for the remaining 800,000 shares until April 8, 2005, subject to our right to require exercise or forfeiture as described above.

On August 23, 2002, we entered into an agreement with Triton West Group, Inc. (Triton) pursuant to which we sold 1,028,038 shares of common stock to Triton for aggregate proceeds of $1,100,000, or approximately $1.07 per share.

On December 4, 2001, we issued 5,000 shares of 3% cumulative convertible preferred stock to Riverview. We received total proceeds of $4,728,000 net of the fee to Cantor Fitzgerald and other associated costs. This preferred stock is convertible into shares of our common stock at a current conversion price of $2.00 per share of common stock. There was a mandatory redemption provision in the preferred stock under which any preferred stock remaining on December 4, 2003, was to be redeemed on that date. In connection with the

preferred stock agreement, we issued to Riverview Group a warrant to purchase 350,877 shares of our common stock at a price of $3.42 per share. We paid Cantor Fitzgerald & Co., our financial advisor in connection with the transaction, a fee of $200,000 and issued them a warrant for 146,199 shares exercisable at $3.42 per share. Both warrants expire on December 4, 2005. On December 7, 2001, Riverview converted 1,000 shares of its 3% cumulative convertible preferred stock for 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. The inducement resulted in a deemed dividend of approximately $1,000,000. 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. 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. As a result of the above transactions all of the 3% cumulative convertible preferred stock were fully converted into our common stock before the mandatory redemption date of December 4, 2003.

On May 10, 2001, we 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 our common stock, subject to restrictions and other obligations. The agreement expired in January 2004. We had the right to draw down on this facility, sometimes termed an equity line, from time to time, and Sativum was obligated to purchase shares of our common stock at a 6% discount to a volume weighted average market price over the 20 trading days following the draw-down notice. We were limited with respect to how often we could exercise a draw down and the amount of each draw down. 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. In connection with our execution of the common stock purchase agreement with Sativum, we issued three-year warrants to purchase an aggregate of 350,000 shares of our common stock at $2.38 per share to Sativum (250,000 shares) and our placement agents (Pacific Crest Securities Inc., 75,000 shares and Granite Financial Group, Inc., 25,000 shares). Our placement agents exercised their warrants in full in July 2001, and we received payment of $238,050 for the shares issued to them.

On August 3, 2000, we completed a $4 million common stock financing transaction with Millennium Partners, LP at $4.33 per share. In the purchase agreement, we granted Millennium an option to purchase up to an additional $3 million of our common stock. Millennium exercised its option to purchase $1 million of our common stock on August 23, 2000 at $5.53 per share. On June 8, 2001, Millennium exercised its remaining option to purchase $2 million of our common stock at $4.3692 per share. As a result of the financing agreement, Millennium received five year warrants to purchase 101,587 shares of common stock at $4.725 per share, 19,900 shares of common stock at $6.03 per share, and 50,352 shares at $4.7664 per share. We may call the warrants at any time at $7.875, $10.05 and $7.944 per underlying share respectively. In addition to the afore-mentioned warrants, Millennium was issued adjustable warrants in connection with the original $4 million purchase, each of which entitled Millennium to receive additional shares on eight dates beginning six months from the respective closing dates and every three months thereafter. The exercisable price per share under the adjustable warrant was $0.01. Millennium exercised the first of the adjustable warrants to purchase 463,369 shares on March 30, 2001, 622,469 shares on July 26, 2001 and 25,804 shares on August 15, 2001, at $0.01 per share. On December 4, 2001, simultaneously with the issuance of 3% cumulative convertible preferred stock to Riverview, we entered into an agreement with Millennium under which we issued 176,101 shares of our common stock as a final cashless exercise of all outstanding adjustable warrants that Millennium was entitled to or would be entitled to. Immediately following delivery of these shares, any further right to acquire common stock under these adjustable warrants were cancelled by the agreement. Riverview is an affiliate of Millennium.

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 2004, we expect to pay $938,000 as an operating lease payment and in addition, based on our 2003 expenses, approximately

$500,000 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 $480,000 in principal, interest and related expenses in 2004. In addition we expect to incur approximately $52,000 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 $735,000 in sub-tenant rent for all of the Rhode Island facilities. As a result of the above transactions, our estimated costs net of sub-tenant rent for the Rhode Island facilities will be approximately $1,235,000 for 2004. 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 12/31/03	Payable in 2004	Payable in 2005	Payable in 2006	Payable in 2007	Payable in 2008	Payable in 2009 and Beyond
Capital lease payments	$ 3,149,876	$ 425,713	$ 412,587	$ 401,289	$ 330,644	$ 243,507	$1,336,136
Operating lease payments	$14,599,448	2,947,335	3,007,630	1,115,186	937,500	1,171,875	5,419,922
Total contractual cash obligations	$17,749,324	$3,373,048	$3,420,217	$1,516,475	$1,268,144	$1,415,382	$6,756,058

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. Although we have taken actions to reduce our expense rates over the last six quarters, 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. If we exhaust our cash balances and are unable to realize adequate financing, we may be unable to meet operating obligations and be required to initiate bankruptcy proceedings.

We intend to pursue opportunities to obtain additional financing in the future through equity and debt financings, 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. Our existing capital resources are sufficient to fund our operations through the end of 2004. 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.

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. During 2001, we were party to a space-sharing agreement entered into between us and Celtrans, LLC. (now Cellerant, Inc.).

Dr. Irving Weissman, a member of our Board of Directors and Chairman of our Scientific Advisory Board, is the founder and Chairman of Cellerant, a privately-owned biotechnology company that is also a tenant in the building in which the Company is located. Under the agreement, which was effective as of September 1, 2001, Cellerant or, with our approval, a subtenant of Cellerant, may use certain animal space in our facility, which we do not currently require for our own use. That agreement is partially in abeyance since the animal space is now used by a third party by agreement with us and with Cellerant. We provide certain services to Cellerant with respect to animal care for mice housed in Cellerant's own space. In addition, Dr. Weissman remains a consultant to us under an agreement entered in 1997.

Recent Accounting Pronouncements

Accounting for Costs Associated with Exit or Disposal Activities

In June 2002, the FASB issued SFAS No. 146, Accounting for Costs Associated with Exit or Disposal Activities. SFAS No. 146 provides guidance related to accounting for costs associated with disposal activities covered by SFAS No. 144 and with one-time termination benefits and other exit or restructuring activities previously covered by Emerging Issues Task Force ("EITF") Issue No. 94-3, Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring). SFAS No. 146 supersedes EITF Issue No. 94-3 in its entirety. Under SFAS No. 146, the following conditions must be met for an action to qualify as an exit or disposal plan: management having the authority to approve the action commits to a plan of termination; the plan identifies the number of employees to be terminated, their job classifications or functions and their locations, and the expected completion date; the plan establishes the terms of the benefit arrangement including the benefits that employees will receive upon termination (including but not limited to cash payments) in sufficient detail to enable employees to determine the type and amount of benefits they will receive if they are involuntarily terminated; and actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn. SFAS No. 146 was effective in 2003 and will be applied prospectively to qualifying exit or disposal activities initiated after December 31, 2002.

Item 7A. ***Quantitive and Qualitative Disclosures About Market Risk***

The Company has no financial instruments that are sensitive to market risk.

Item 8. ***Financial Statements and Supplementary Data***

STEMCELLS, INC.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS

To the Stockholders and Board of Directors of Stemcells, Inc.:

We have audited the accompanying consolidated balance sheet of Stemcells, Inc. as of December 31, 2003, and the related consolidated statements of operations, changes in redeemable preferred stock and stockholder's equity and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. 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 audit provides 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. at December 31, 2003, and the consolidated results of their operations and their cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

The accompanying financial statements have been prepared assuming Stemcells, Inc. will continue as a going concern. As discussed in Note 1, the Company has incurred significant operating losses and negative cash flows since inception and expects to continue to incur significant operating losses for the foreseeable future. These factors, among others, as discussed in Note 1 to the financial statements, raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ Grant Thornton LLP

San Jose, California

March 26, 2004

REPORT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

Stockholders and Board of Directors

StemCells, Inc.

We have audited the accompanying consolidated balance sheets of StemCells, Inc. as of December 31, 2002 and 2001, and the related consolidated statements of operations, changes in redeemable preferred stock and stockholders' equity, and cash flows for each of the two years in the period ended December 31, 2002. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the 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. at December 31, 2002 and 2001, and the consolidated results of its operations and its cash flows for each of the two years in the period ended December 31, 2002, in conformity with accounting principles generally accepted in the United States.

The accompanying financial statements have been prepared assuming that StemCells, Inc. will continue as a going concern. As more fully described in Note 1, the Company has incurred significant operating losses and negative cash flows since inception and expects to continue to incur significant operating losses for the foreseeable future. These conditions raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. 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.

As discussed in Note 1 to the accompanying consolidated financial statements, the Company has restated its financial statements as of and for the two years in the period ended December 31, 2002.

/s/ ERNST & YOUNG LLP

Palo Alto, California

March 4, 2003, except for Note 1 — Restatement of Consolidated Financial Statements, as to which the date is March 31, 2004

STEMCELLS, INC.

CONSOLIDATED BALANCE SHEETS

	December 31,	
	2003	2002
		(Restated)
Assets		
Current assets:		
Cash and cash equivalents	$ 13,081,703	$ 4,236,367
Other receivables	145,463	64,892
Other current assets	180,048	102,829
Total current assets	13,407,214	4,404,088
Property, plant and equipment, net	3,611,402	4,337,711
Other assets, net	2,767,798	2,587,023
Total assets	$ 19,786,414	$ 11,328,822
Liabilities, Redeemable Convertible Preferred Stock, and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 454,434	$ 341,995
Accrued expenses and other	1,041,150	427,916
Accrued wind-down expenses, current portion	789,000	775,000
Current maturities of capital lease obligations	237,084	229,166
Total current liabilities	2,521,668	1,774,077
Capital lease obligations, less current maturities	1,849,583	2,086,667
Deposits and other long-term liabilities	521,420	393,240
Accrued wind-down expenses non-current portion	3,033,984	1,156,364
Deferred rent	896,201	1,325,419
Total liabilities	8,822,856	6,735,767
Commitments (Note 6)		
Redeemable Convertible Preferred Stock, $0.01 par value; 1,000,000 shares authorized issuable in series: 3% Cumulative Redeemable Convertible Preferred Stock, 5,000 shares issued with no shares outstanding at December 31, 2003 and 4,000 shares outstanding at December 31, 2002,(aggregate liquidation preference of $4,000,000 at December 31, 2002)	—	2,659,686
Stockholders' equity:		
Common stock, $.01 par value; 75,000,000 shares authorized; 40,998,858 and 26,860,078 shares issued and outstanding at December 31, 2003 and 2002, respectively	409,988	268,601
Additional paid-in capital	170,406,393	149,238,207
Accumulated deficit	(158,874,915)	(146,515,666)
Deferred compensation	(977,908)	(1,057,773)
Total stockholders' equity	10,963,558	1,933,369
Total liabilities, redeemable convertible preferred stock, and stockholders' equity	$ 19,786,414	$ 11,328,822

See accompanying notes to consolidated financial statements.

STEMCELLS, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 31,		
	2003	2002	2001
		(Restated)	(Restated)
Revenue from collaborative and licensing agreements	$ 18,307	$ 40,010	$ —
Revenue from grants	255,123	375,367	505,231
Revenue from assignment of rights to technology	—	—	300,000
Total Revenues	273,430	415,377	805,231
Operating Expenses			
Research and development	6,143,676	7,382,272	8,603,444
General and administrative	3,390,652	3,358,581	3,787,759
Encapsulated Cell Therapy wind-down and corporate relocation	2,885,329	1,163,804	575,000
	12,419,657	11,904,657	12,966,203
Loss from operations	(12,146,227)	(11,489,280)	(12,160,972)
Other Income (expense):			
Interest income	38,826	108,702	200,766
Interest expense	(207,112)	(226,723)	—
Gain on sale of short-term investment	—	—	7,782,398
Loss on disposal of property, plant and equipment	—	(2,736)	(30,477)
Other income (expense)	23,761	(34,218)	186,788
	(144,525)	(154,975)	8,139,475
Loss before preferred dividends	(12,290,752)	(11,644,255)	(4,021,497)
Dividends to preferred shareholders	(68,497)	(351,727)	—
Deemed dividend to preferred shareholders	(2,065,911)	(1,280,004)	(1,545,917)
Net loss applicable to common shareholders	(14,425,160)	(13,275,986)	(5,567,414)
Basic and diluted net loss per share applicable to common shareholders	$ (0.45)	$ (0.53)	$ (0.25)
Shares used in basic and diluted per share amounts	32,080,233	25,096,252	22,241,564

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		
	Shares	Amount	Shares	Amount	Additional Paid-in Capital
Balances, December 31, 2000	1,500	$1,283,250	20,956,887	$209,569	$138,366,817
Issuance of common stock related to equity financing net of issuance cost $396,593	—	—	707,947	7,079	3,596,328
Exercise of warrants	—	—	1,856,333	18,563	2,230,603
Issuance of redeemable 3% convertible preferred stock, net of issuance cost $272,485	5,000	1,542,515	—	—	3,185,000
Conversion of redeemable convertible preferred shares to common stock	(1,000)	(906,500)	500,125	5,001	901,499
Accretion of redeemable preferred stock	—	743,667	—	—	(743,667)
Common stock issued pursuant to employee benefit plan	—	—	28,221	283	71,882
Exercise of employee and consultant stock options	—	—	170,508	1,705	242,833
Compensation expense from grant of options	—	—	—	—	552,349
Deferred compensation	—	—	—	—	776,744
Amortization of deferred compensation	—	—	—	—	—
Unrealized loss on short-term investments	—	—	—	—	—
Realized gain on short-term investments	—	—	—	—	—
Net loss (RESTATED)	—	—	—	—	—
	—	—	—	—	—
Comprehensive (loss) (RESTATED)	—	—	—	—	—
Balances, December 31, 2001 (RESTATED)	5,500	$2,662,932	24,220,021	$242,200	$149,180,388

[Additional columns below]

[Continued from above table, first column(s) repeated]

	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Deferred Compensation	Total Stockholders' Equity
Balances, December 31, 2000	$(130,498,187)	$16,356,334	$(2,735,761)	$21,698,772
Issuance of common stock related to equity financing net of issuance cost $396,593	—	—	—	3,603,407
Exercise of warrants	—	—	—	2,249,166
Issuance of redeemable 3% convertible preferred stock, net of issuance cost $272,485	—	—	—	3,185,000
Conversion of redeemable convertible preferred shares to common stock	—	—	—	906,500
Accretion of redeemable preferred stock	—	—	—	(743,667)
Common stock issued pursuant to employee benefit plan	—	—	—	72,165
Exercise of employee and consultant stock options	—	—	—	244,538
Compensation expense from grant of options	—	—	—	552,349
Deferred compensation	—	—	(776,744)	—
Amortization of deferred compensation	—	—	1,242,408	1,242,408
Unrealized loss on short-term investments	—	(8,573,936)	—	(8,573,936)
Realized gain on short-term investments	—	(7,782,398)	—	(7,782,398)
Net loss (RESTATED)	(4,021,497)	—	—	(4,021,497)
	—	—	—	4,021,497
Comprehensive (loss) (RESTATED)	—	—	—	—
Balances, December 31, 2001 (RESTATED)	$(134,519,684)	$ —	$(2,270,097)	$12,632,807

STEMCELLS, INC.

CONSOLIDATED STATEMENTS OF CHANGES IN REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY — (Continued)

	Redeemable Convertible Preferred Stock		Common Stock						
	Shares	Amount	Shares	Amount	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Deferred Compensation	Total Stockholders' Equity
Balances, December 31, 2001 (RESTATED)	5,500	$ 2,662,932	24,220,021	$242,200	$149,180,388	$(134,519,684)	$ —	$(2,270,097)	$ 12,632,807
Issuance of common stock related to equity financing net of issuance cost $89,706	—	—	1,135,850	11,359	1,117,285	—	—	—	1,128,644
Dividends paid to 3% convertible preferred holders in stock	—	—	97,969	980	128,290	(129,270)	—	—	—
Conversion of redeemable convertible preferred shares to common stock	(1,500)	(1,283,250)	1,252,244	12,522	1,493,185	(222,457)	—	—	1,283,250
Accretion of redeemable preferred stock	—	1,280,004	—	—	(1,280,004)	—	—	—	(1,280,004)
Common stock issued for external services			61,419	614	90,913	—	—	—	91,527
Common stock issued pursuant to employee benefit plan	—	—	44,988	450	56,015	—	—	—	56,465
Exercise of employee and consultant stock options	—	—	47,587	476	8,859	—	—	—	9,335
Compensation expense from grant of options	—	—	—	—	124,689	—	—	—	124,689
Deferred compensation	—	—	—	—	(1,681,413)	—	—	1,681,413	—
Amortization of deferred compensation	—	—	—	—	—	—	—	(469,089)	(469,089)
Net loss (RESTATED)	—	—	—	—	—	(11,644,255)	—	—	(11,644,255)
Balances, December 31, 2002 (RESTATED)	4,000	$ 2,659,686	26,860,078	$268,601	$149,238,207	$(146,515,666)	$ —	$(1,057,773)	$ 1,933,369

STEMCELLS, INC.

CONSOLIDATED STATEMENTS OF CHANGES IN REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY — (Continued)

	Redeemable Convertible Preferred Stock		Common Stock						
	Shares	Amount	Shares	Amount	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Deferred Compensation	Total Stockholders' Equity
Balances, December 31, 2002 (RESTATED)	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 cost $310,403	—	—	9,303,988	93,040	16,037,307	—	—	—	16,130,347
Dividends paid to 3% convertible preferred holders in stock	—	—	49,809	497	68,000	(68,497)	—	—	—
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	$409,988	$170,406,393	$(158,874,915)	$ —	$ (977,908)	$ 10,963,558

See accompanying notes to consolidated financial statements.

STEMCELLS, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,		
	2003	2002	2001
		Restated	Restated
Cash flows from operating activities:			
Loss before preferred dividends	$(12,290,752)	$(11,644,255)	$ (4,021,497)
Adjustments to reconcile loss to net cash used in operating activities:			
Depreciation and amortization	1,013,133	402,190	648,273
Amortization of deferred compensation	251,208	(469,089)	1,242,408
Issue of options in exchange for services	602,613	237,680	563,872
Gain on sale of short-term investments	—	—	(7,782,398)
Gain on sale of rights to technology	—	—	(300,000)
Loss on disposal of fixed assets	—	—	30,477
Changes in operating assets and liabilities:			
Accrued interest receivable	(4,831)	1,687	12,087
Other receivables	(75,740)	(12,351)	(49,590)
Other current assets	(77,219)	258,807	162,873
Other assets, net	(277,863)	(379,572)	(196,432)
Accounts payable and accrued expenses	725,673	(147,523)	(1,919,195)
Accrued wind-down expenses	1,891,620	437,833	797,673
Deferred rent	(429,218)	1,123,943	191,586
Deposits and other long term liabilities	128,180	103,345	103,896
Net cash used in operating activities	(8,543,196)	(10,087,305)	(10,515,967)
Cash flows from investing activities:			
Proceeds from sale of short-term investments	—	—	7,782,398
Purchases of property, plant and equipment	(189,733)	(222,335)	(334,321)
Proceeds on sale of fixed assets	—	—	40,795
Acquisition of other assets	—	—	(50,344)
Proceeds from sale of rights to technology, net	—	—	300,000
Net cash provided by (used in) investing activities	(189,733)	(222,335)	7,738,528
Cash flows from financing activities:			
Proceeds from issuance of common stock, net	16,130,347	1,128,644	5,852,573
Proceeds from the exercise of stock options	30,085	9,335	157,682
Proceeds from the exercise of warrants	1,647,000	—	—
Proceeds from issuance of preferred stock, net	—	—	4,727,515
Repayments of debt and lease obligations	(229,167)	(289,167)	(332,083)
Net cash provided by financing activities	17,578,265	848,812	10,405,687
Increase (decrease) in cash and cash equivalents	8,845,336	(9,460,828)	7,628,248
Cash and cash equivalents at beginning of year	4,236,367	13,697,195	6,068,947
Cash and cash equivalents at end of the year	$ 13,081,703	$ 4,236,367	$ 13,697,195
Supplemental disclosure of cash flow information:			
Interest paid	$ 207,112	$ 226,723	$ 246,328

Non-cash investing and financing activities are excluded from the consolidated statement of cash flows. For fiscal 2001, 1,000 shares of the 3% cumulative convertible preferred stock was converted for 500,125 shares of the Company's common stock with a market value of $906,500. For fiscal 2002, 1,500 shares of 6% cumulative convertible preferred stock including accumulated dividends was converted for 1,252,444 shares of common stock with a market value of $1,505,707. The total of the accumulated dividends was $222,457. For fiscal 2003, 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. Accumulated dividends of $68,497 was paid with 49,809 shares of Company stock. Accretion of redeemable convertible preferred stock for 2003, 2002 and 2001 was $1,067,579, $1,280,004, and $743,667 respectively. A deemed dividend of $998,332 was recorded in 2003 relating to the beneficial conversion.

See accompanying notes to consolidated financial statements.

STEMCELLS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2003

1. Summary of Significant Accounting Policies

Nature of Business

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

The accompanying 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 $158.9 million at December 31, 2003. 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. It may not be able to realize sufficient revenues to achieve or sustain profitability in the future.

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 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. 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 Company's existing capital resources are only sufficient to fund our operations through the end of 2004. These conditions raise doubt about StemCells' ability to continue as a going concern. 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. Significant inter-company balances and transactions have been eliminated on consolidation.

Restatement of Consolidated Financial Statements

The Company has restated its consolidated financial statements for the years ended December 31, 2002 and December 31, 2001. The Company determined that it needed to restate the treatment of its continuing cost of operating the Company's former corporate headquarters in Rhode Island in line with applicable accounting guidance, including EITF issue 94-3 — "Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity." EITF issue 94-3 requires that, instead of expensing costs as incurred, the Company accrue what it can reasonably estimate its cost to be until it subleases assigns or sells its remaining interest in the facility. Accordingly, in its restated financial statements for the years ended December 31, 2002 and 2001, based on information estimated as of those dates, the Company has accrued $775,000 and $575,000, respectively, as wind-down expenses. (See note 9 to the financial statements).

As a result of an amendment to the Company's lease on its current facilities in California, part of the lease incentive amounting to $1,079,201 had been recognized as income received in 2002 instead of being deferred and recognized over the remaining lease period as per generally accepted accounting principles in the US. The consolidated financial statements for the year ended December 31, 2002 have been restated to defer this amount at December 31, 2002. (See note 6 to the financial statements.)

STEMCELLS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

In addition, in the Consolidated Statements of Operations for the year ended December 31, 2002, the line for "Dividends to preferred shareholders" was inadvertently omitted.

The restatements increased the net loss applicable to common shareholders in fiscal 2001 by $575,000 or $0.03 per share. The net impact of the restatements in fiscal 2002 increase net loss applicable to common shareholders by $1,631,000 or $0.06 per share.

Use of Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States, 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 and valuation allowance against deferred tax assets.

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.

Available-for-Sale Securities

The Company determines the appropriate classification of securities at the time of purchase and reevaluates such designation as of each balance sheet date. The Company classifies such holdings as available-for-sale securities, which are carried at fair value, with unrealized gains and losses reported as a separate component of stockholders' equity. At December 31, 2000, the Company owned 126,193 shares of Modex Therapeutics Ltd ("Modex"). The Company sold all of its shares of Modex in 2001 for a realized gain of $7.8 million. The Company no longer holds any available-for-sale securities.

Comprehensive Income (Loss)

Comprehensive income (loss) is comprised of net income (loss) and other comprehensive income (loss). The Company has no items of other comprehensive income therefore comprehensive income (loss) equals net income (loss).

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 - 15 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.

The Company adopted FAS No. 144, "Accounting for the Impairment or Disposal of Long-lived Assets," at the beginning of 2002. As permitted by the transition rules of FAS No. 144, long-lived assets classified as held for sale as a result of activities that were initiated prior to this Statement's initial application shall continue to be accounted for in accordance with FAS No. 121. If however, the criteria for classifying long-lived assets held for sale under FAS No. 144 are not met by the end of the fiscal year in which this

Statement is initially applied, the related long-lived assets shall be reclassified as held and used. At December 31, 2002, the criteria under FAS No. 144 for classifying the Company's long-lived assets held for sale were not met and accordingly, such assets with a fair value of $3,203,491 at December 31, 2001 were reclassified as held and used on the balance sheet for all periods presented and are included in Property, Plant and Equipment, net.

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 is issued. Costs related to patent applications are charged to expense at the time such patents are deemed to have no continuing value. Effective since 2001 the Company expenses all patent costs as incurred. At December 31, 2003 and 2002, total capitalized costs were $980,000 and the related accumulated amortization was $236,000 and $180,000, respectively. Patent related expenses totaled $665,000, $650,000, and $647,000 in 2003, 2002 and 2001 respectively. License costs are capitalized and amortized 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, and in accordance with APB 25, the Company recognizes no compensation expense for such 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 difference between the exercise price and fair market value 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 we had applied the fair value recognition provisions of FAS 123 to stock-based employee compensation:

	Year Ended December 31,		
	2003	2002	2001
		Restated	Restated
Net loss applicable to common stockholders — as reported	$(14,425,160)	$(13,275,986)	$ (5,567,414)
Add: Stock-based employee/ director compensation expense included in reported net loss	242,548	143,002	491,706
Deduct: Total stock-based employee/director compensation expense under the fair value based method for all awards	(960,166)	(619,631)	(2,246,983)
Net loss applicable to common stockholders — pro forma	$(15,142,778)	$(13,752,615)	$ (7,322,691)
Basic and diluted net loss per share applicable to common stockholders — as reported	$ (0.45)	$ (0.53)	$ (0.25)
Basic and diluted net loss per share applicable to common stockholders — pro forma	$ (0.47)	$ (0.55)	$ (0.33)
Shares used in Basic and Diluted loss per share amounts	32,080,233	25,096,252	22,241,564

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 required 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 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, 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.

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 are measured using currently enacted tax rates and laws. 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 are recognized as revenue at time of receipt.

Recent Accounting Pronouncements

In June 2002, the FASB issued SFAS No. 146, Accounting for Costs Associated with Exit or Disposal Activities. SFAS No. 146 provides guidance related to accounting for costs associated with disposal activities covered by SFAS No. 144 and with one-time termination benefits and other exit or restructuring activities previously covered by Emerging Issues Task Force ("EITF") Issue No. 94-3, Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring). SFAS No. 146 supersedes EITF Issue No. 94-3 in its entirety. Under SFAS No. 146, the following conditions must be met for an action to qualify as an exit or disposal plan: management having the authority to approve the action commits to a plan of termination; the plan identifies the number of employees to be terminated, their job classifications or functions and their locations, and the expected completion date; the plan establishes the terms of the benefit arrangement including the benefits that employees will receive upon termination (including but not limited to cash payments) in sufficient detail to enable employees to determine the type and amount of benefits they will receive if they are involuntarily terminated; and actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn. SFAS No. 146 was effective in 2003 and is applied prospectively to qualifying exit or disposal activities initiated after December 31, 2002.

In January 2003, the FASB issued FASB Interpretation No. 46 "Consolidation of Variable Interest Entities, an interpretation of ARB No. 51." FIN 46 requires certain variable interest entities to be consolidated by the primary beneficiary of the entity if the equity investors in the entity do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. FIN 46 is effective immediately for all new variable interest entities created or acquired after January 31, 2003. For variable interest entities created or acquired prior to February 1, 2003, the provisions of FIN 46 must be applied for the first interim or annual period beginning after June 15, 2003. In addition, FIN 46 requires that the company make disclosures in its consolidated financial statements for the year ended December 31, 2002 when the company believes it is reasonably possible that it will consolidate or disclose information about variable interest entities after FIN 46 becomes effective. In December 2003, FASB issued a revised FIN 46. The FASB deferred the effective date for VIEs that are non-special purpose entities created before February 1, 2003 to the first interim or annual reporting period that ends after March 15, 2004. At this time, we do not believe it is reasonably possible that we will consolidate or disclose information about VIEs. However, we will continue to assess the impact of FIN 46 on our consolidated financial statements.

In May 2003, the FASB issued SFAS No. 150, Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity, ("SFAS 150"). SFAS 150 establishes standards for classifying and measuring as liabilities certain financial instruments that embody obligations of the issuer and have

characteristics of both liabilities and equity. SFAS 150 must be applied immediately to instruments entered into or modified after May 31, 2003. The adoption of SFAS 150 did not have a material effect on our results of operations or financial position.

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 has 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.

	Years Ended December 31,		
	2003	2002	2001
		Restated (In thousands, except per share amounts)	Restated
Net loss applicable to common stockholders	$(14,425)	$(13,276)	$ (5,567)
Weighted average shares used in computing basic and diluted net loss per share amounts	32,080	25,096	22,242
Basic and diluted net loss per share applicable to common stockholders	$ (0.45)	$ (0.53)	$ (0.25)

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,		
	2003	2002	2001
Convertible preferred stock	—	2,000,000	2,856,192
Outstanding options	5,025,374	4,294,050	3,652,560
Outstanding warrants	2,101,074	1,074,593	1,056,687

2. Investments

In October 1997, the Company completed a series of transactions, which resulted in the establishment of its previously 50%-owned Swiss subsidiary, Modex Therapeutics, Ltd., (Modex) as an independent company.

In April 1998, Modex completed an additional equity offering, in which the Company did not participate. This resulted in a reduction in the Company's ownership to less than 20% ownership; therefore, the Company accounted for this investment under the cost method from that date. On June 23, 2000, Modex completed an initial public offering of its common stock. At December 31, 2000, the Company owned 126,193 shares of Modex. On January 9, 2001, the Company sold 22,616 Modex shares for a net price of 182.00 Swiss francs per share, which converts to $112.76 per share, for total proceeds of $2,550,230. On May 1, 2001, the Company sold its remaining shares in Modex for a net price of 87.30 Swiss francs per share, which converts to approximately $50.51 per share, for total proceeds of approximately $5,232,168, net of commissions and fees. The Company no longer holds any shares of Modex.

STEMCELLS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

3. Property, Plant and Equipment

Property, plant and equipment consists of the following:

	December 31,	
	2003	2002
Building and improvements	$ 3,918,889	$ 3,918,889
Machinery and equipment	2,231,189	2,077,563
Furniture and fixtures	339,458	303,351
	6,489,536	6,299,803
Less accumulated depreciation and amortization	(2,878,134)	(1,962,092)
	$ 3,611,402	$ 4,337,711

Depreciation and amortization expense was $916,000, $307,000, and $495,000 for the years ending December 31, 2003, 2002 and 2001, respectively.

4. Other Assets, Net

Other assets are as follows:

	December 31,	
	2003	2002
Patents, net	$ 743,370	$ 799,173
License agreements, net	334,850	376,137
Security deposit — building lease	752,500	752,500
Deposit — other	—	3,338
Employee loan	—	115,315
Restricted Cash — (Letter of Credit)	937,078	540,560
	$2,767,798	$2,587,023

At December 31, 2003 and 2002, accumulated amortization was $1,485,000 and $1,388,000, respectively, for patents and license agreements.

5. Accrued Expenses

Accrued expenses are as follows:

	December 31,	
	2003	2002
External services	$ 268,545	$183,813
Employee compensation	620,340	233,447
Other	152,265	10,656
	$1,041,150	$427,916

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 5.1% 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, 2003, the Company had $1,147,000 in deferred rent liability 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 a 40,000 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 amounting to $275,000 issued at commencement of the lease to serve as a deposit for the duration of the lease. The lease has a rent escalation clause and accordingly, the Company is recognizing rent expense on a straight-line basis. At December 31, 2003 the Company had $896,000 in deferred rent liability for this facility.

As of December 31, 2003, future minimum lease payments and sublease income under operating and capital leases and principal payments on equipment loans are as follows:

	Capital Leases	Operating Leases	Sublease Income
2004	$ 425,713	$ 2,947,335	$1,473,352
2005	412,587	3,007,630	1,409,463
2006	401,289	1,115,186	791,463
2007	330,644	937,500	73,068
2008	243,507	1,171,875	—
Thereafter	1,336,137	5,419,922	—
Total minimum lease payments	3,149,877	$14,599,448	$3,747,347
Less amounts representing interest	1,063,210		
Present value of minimum lease payments	2,086,667		
Less current maturities	237,084		
Capitalized lease obligations, less current maturities	$1,849,583		

Rent expense for the years ended December 31, 2003, 2002 and 2001, was $1,040,000, $2,565,000, and $2,629,000 respectively.

7. Grants

In February 2001, the Company was awarded a two-year, $300,000 per year grant from the National Institutes of Health's Small Business Innovation Research (SBIR) office. The grant, which will support joint work with virologist Dr. Jeffrey Glenn at Stanford University, is aimed at characterizing the human cells that can be infected by human hepatitis viruses and to develop a small animal model using the cells that are most infectable by these viruses to develop screening assays and identify novel drugs for the disease. For each of 2001 and 2002, the Company received $300,000, of which $150,367 represents the Company's share of the joint effort and has been recognized as revenue. The remainder, $149,633, was paid to Stanford University as

its share of the joint effort each year of the grant. In addition in 2001, the Company received and recognized as revenue $298,614 for research from a prior SBIR grant relating to the neural program.

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 revenue of $56,000, $225,000 and $112,000 for 2001, 2002 and 2003 respectively. The Company does not intend to draw further funds from this grant since it will no longer pursue 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 revenue of $143,000 for 2003.

8. Assignment of Rights

On April 30, 2001, in consideration for $300,000 received from Modex and the assistance of Modex in executing the sale of StemCells' holding of Modex shares, StemCells agreed to assign to Modex the rights concerning future payments under the Asset Purchase and License Agreement between the Company and Neurotech SA, by which Neurotech SA purchased the Company's former encapsulated cell therapy technology.

9. Wind-down of Encapsulated Cell Technology Research and Development Program (2001 and 2002 Restated)

Until mid-1999, the Company engaged in research and development in encapsulated cell therapy technology, including a pain control program funded by AstraZeneca Group plc. In June 1999 AstraZeneca terminated the collaboration, as allowed under the terms of the original collaborative agreement signed in 1995. As a result of termination, management determined in July 1999 to restructure its research operations to abandon all further encapsulated cell technology research and 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.

In 1999, in connection with exiting our former corporate headquarters and ECT facilities, we created a reserve for the estimated lease payments and operating expenses of the Rhode Island facilities through June 30, 2000, when we expected to fully sublease, assign or sell our remaining interests in the property. We did not fully sublet the Rhode Island facilities as expected and therefore made a change in estimate in June 2000 to accrue additional expenses of $3,327,000 to cover operating lease payments and operating expenses (including utilities, taxes, insurance, maintenance, interest and other non-employee expenses) through 2001. At December 31, 2001, the $3,327,000 reserve was exhausted and we recorded an additional reserve of $575,000. This reserve was based on information provided by our broker/realtor that estimated, based on assumptions relevant to the real estate market conditions as of the end of 2001, the time it would be likely to take until the facility would be fully sub-leased. In 2002, we incurred $964,000 in lease payments and operating expenses, net of subtenant income for this facility, of which $575,000 was booked against the reserve created at the end of 2001 and the remainder recorded as wind-down expenses. At the end of December 2002, based on an analysis of the real estate market conditions at that time, we revised the reserve to $775,000. In 2003 we incurred $984,000 in lease payments and operating expenses, net of subtenant income for this facility of which $775,000 was recorded against the reserve and the remainder recorded as wind-down expenses. After considering various factors such as the Company's experience in subleasing the facility since exiting the facility in 1999, our lease payments through to the end of the lease, facility operating expenses, the current real

estate market in Rhode Island, and estimated subtenant income based on occupancy both actual and projected occupancy, the Company revised the reserve at December 31, 2003 to $2,676,000. Even though it is the intent of the Company to sublease, assign or sell 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.

10. 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 the 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, at an exercise price of $5.25 per share, the quoted market price at the grant date. The Company also designated a pool of 400,000 options to be granted to persons in a position to make a significant contribution to the success of the stem cell program. Under the original grants, approximately 100,000 of these options were exercisable immediately on the date of grant, 1,031,000 of these options would vest and become exercisable only upon the achievement of specified milestones related to the Company's stem cell development program and the remaining 468,750 options would vest over eight years. In connection with the 468,750 options issued to a non-employee, Dr. Anderson, the Company recorded deferred compensation of $1,750,000, the fair value of such options at the date of grant, which will be amortized over an eight-year period. The deferred compensation expense associated with the unvested portion of the grants as of December 31, 2003 was $869,000. The fair value was determined using the Black-Scholes method.

Effective October 31, 2000, the Company agreed with Drs. Weissman and Gage to revise their 468,750 milestone-vesting stock options to time-based vesting, on the same schedule as Dr. Anderson's option. Under each of the revised options, 168,750 shares vested immediately, and the remaining 300,000 shares vest at 50,000 per year on September 25, until September 25, 2005, when the final 100,000 shares will vest. The exercise price remains $5.25 per share. The Company recorded an expense of $164,000 and a recovery of $419,000 for the years 2003 and 2002 respectively, as compensation expense for the fair market value of the vested portion of such options in an amount determined using the Black-Scholes method. The deferred compensation expense associated with the unvested portion of the grants was determined to be approximately $105,000 at December 31, 2003. As part of the revision of the options, Drs. Weissman and Gage relinquished all rights under an agreement by whose terms they had the right to license the non-brain stem cell technology in exchange for a payment to the Company equal to all prior funding for such research plus royalty payments. The Company revalues the options using the Black-Scholes method on a quarterly basis and recognizes additional or reduced compensation expense accordingly.

11. Stockholders' Equity

Sale of Common Stock

On August 3, 2000, the Company completed a $4 million common stock financing transaction with Millennium Partners, LP at $4.33 per share. In the purchase agreement, the Company granted Millennium an option to purchase up to an additional $3 million of its common stock. Millennium exercised its option to purchase $1 million of the Company's common stock on August 23, 2000 at $5.53 per share. On June 8, 2001, Millennium exercised its remaining option to purchase $2 million of the Company's common stock at $4.3692 per share. As a result of the financing agreement, Millennium received five year warrants to purchase 101,587 shares of common stock at $4.725 per share, 19,900 shares of common stock at $6.03 per share, and 50,352 shares at $4.7664 per share. The warrants are callable by StemCells any time at $7.875, $10.05 and $7.944 per underlying share respectively.

STEMCELLS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

In addition to the above, Millennium was issued adjustable warrants in connection with the original $4 million purchase, each of which entitled Millennium to receive additional shares on eight dates beginning six months from the respective closing dates and every three months thereafter. The adjustable warrants could be exercised at any time prior to the thirtieth day after the last of such dates. The number of additional shares Millennium was entitled to on each date was based on the number of shares of common stock Millennium continued to hold on each date and the market price of the Company's common stock over a period prior to each date. The exercise price per share under the adjustable warrant was $0.01. Millennium exercised the first of the adjustable warrants to purchase 463,369, 622,469, and 25,804 shares on March 30, 2001, July 26, 2001 and August 15, 2001 respectively at $0.01 per share. The Company has accounted for the sale of the stock and warrants by adding that portion of the proceeds equal to the par value of the new shares to common stock and the balance including the value of the warrants to additional paid in capital. On December 4, 2001, the Company entered into an agreement with Millennium under which it issued 176,101 shares of the Company's common stock as a final cashless exercise of all outstanding adjustable warrants that Millennium was entitled to or would be entitled to. Immediately following delivery of these shares, any further right to acquire common stock under these adjustable warrants was cancelled by the agreement.

On August 23, 2002, the Company entered into an agreement with Triton West Group, Inc. (Triton) pursuant to which the Company sold 1,028,038 shares of common stock to Triton for aggregate proceeds of $1,100,000, or approximately $1.07 per share.

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 is subject to adjustment for stock splits, dividends, distributions, reclassifications and similar events. On 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 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 of the Common Stock remaining at or above $2.50 per share for 10 consecutive trading days, the Company may require Riverview to exercise the warrant for any remaining shares or to relinquish any unexercised portion. On November 11, 2003, Riverview exercised part of the warrant acquiring 1,098,000 shares at $1.50 per share. The proceeds to the Company from this warrant exercise totaled $1,647,000. The warrant is exercisable for the remaining 800,000 shares until April 8, 2005, subject to the Company's right to require exercise or forfeiture as described above.

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.

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.

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 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, 21,041 shares April 11, 2003, 17,935 shares June 30, 2003 and 10,833 shares November 11, 2003 valued at approximately $60,000, $69,000, $17,000, $30,000 and $22,000 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 was converted for 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 $998,000 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.

Company recorded deemed dividends related to the 3% cumulative convertible preferred stock of $2,065,911, $1,280,004 and $743,167 in 2003, 2002 and 2001 respectively. The 2003 deemed dividend consists of $1,067,579 deemed dividend due to accretion in 2003 plus $998,332 deemed dividend arising on conversion by Riverview.

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 are initially convertible at the option of the holders into common stock at $3.77 per share (based on the face value of the preferred shares). The conversion price is subject to adjustment upon certain equity transactions, as defined by the applicable agreement and may be below the trading market price of the stock at the time of conversion. The Company has valued the beneficial conversion feature reflecting the April 13, 2000 commitment date and the most beneficial per share discount available to the preferred shareholders. Such value was $481,000 and is treated as a deemed dividend as of the commitment date. The holders of the preferred stock have liquidation rights equal to their original investment plus accrued but unpaid dividends.

During the first and second quarters of 2001, the conversion price was reduced as a result of the issuance of adjustable warrants to Millennium LP, as described above. The Company has revalued the beneficial conversion feature reflecting the reduced conversion prices and the most beneficial per share discount available to the preferred shareholders and has recorded additional deemed dividends aggregating $802,000 as of the applicable reset dates.

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 was paid in common stock with a value of $222,457.

Stock Issued For Technology Licenses

Under a 1997 License Agreement with NeuroSpheres, Ltd., the Company obtained an exclusive patent license in the field of transplantation. The Company entered into an additional license agreement with NeuroSpheres as of October 31, 2000, under which the Company obtained an exclusive license in the field of non-transplant uses, such as drug discovery and drug testing, so that together the licenses are exclusive for all uses of the 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. In 2004, the Company will begin making $50,000 annual 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. The Company must pay an additional $10,000 upon the issuance of each of the four patents licensed under the amended agreement. In August 2002 the Company 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. Under the new license, the Company must pay an additional $10,000 upon the issuance of one patent and $5,000 on the anniversary of its issuance. All such payments may be made in stock at the Company's election. Upon entering a license agreement with the Oregon Health Sciences 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 we issued 4,000 shares of our 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 may 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. The following table presents the combined activity of the Company's stock option plans for the years ended December 31:

	2003		2002		2001	
	Options	Weighted Average Exercise Price	Options	Weighted Average Exercise Price	Options	Weighted Average Exercise Price
Outstanding at January 1	4,294,050	$3.14	3,652,560	$3.98	2,716,966	$4.32
Granted	1,125,161	1.25	1,041,478	0.98	1,212,082	2.61
Exercised	(97,233)	0.31	(47,587)	0.20	(170,105)	0.93
Canceled	(296,604)	2.34	(352,401)	4.51	(106,383)	2.26
Outstanding at December 31	5,025,374	2.91	4,294,050	3.14	3,652,560	$3.98
Options exercisable at December 31	3,048,940	$3.11	2,378,778	$3.45	1,287,918	$3.74

The options available to grant as of December 31, 2003 is 958,631.

The following table presents weighted average price and life information about significant option groups outstanding at December 31, 2003:

	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	2,031,165	8.34	$0.99	1,037,560	$0.77
$2.00 - $3.99	1,269,270	7.48	$2.81	827,849	$2.99
$4.00 - $5.99	1,724,939	4.02	$5.22	1,183,531	$5.22
	5,025,374			3,048,940	

STEMCELLS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The weighted average fair value per share of options granted during 2003, 2002 and 2001 was $0.86, $1.15 and $2.61, 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		
	2003	2002	2001
Expected life (years)	5	5	5
Interest rate	3.29%	3.03%	4.39%
Volatility	121.1%	171.8%	154.2%

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

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, 2003

Shares reserved for exercise of stock options	6,411,763
Shares reserved for the employee benefit plan	141,671
Shares reserved for compensation of external services	156,575
Shares reserved for the equity line (expired January 2004)	4,588,200
Shares reserved for the warrants related to the equity line	250,000
Shares Reserved for warrants related to 6% convertible preferred stock	158,242
Shares Reserved for warrants related to 3% convertible preferred stock	2,040,945
Shelf Reserve for possible future issuances of shares	8,971,962
Total	22,719,358

12. 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 November 1997, the Company signed a Research Funding and Option Agreement with The Scripps Research Institute (“Scripps”) relating to certain stem cell research. Under the terms of the Agreement, StemCells agreed to fund research in the total amount of approximately $931,000 at Scripps over a period of three years. StemCells paid Scripps approximately $225,000 in 2000. In addition, the Company agreed to issue to Scripps 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. Under the Agreement, StemCells has an option for an exclusive license to the inventions resulting from the sponsored research, subject to the payment of royalties and certain other amounts, and is obligated to make payments totaling $425,000 for achievement of certain milestones. The Company also entered a Sponsored Research Agreement and a License Agreement with Oregon Health Sciences University (“OHSU”) in March 1997, relating to other certain research concerning liver repopulating cells. Under subsequent Sponsored Research Agreements with OHSU, StemCells paid OHSU approximately $80,500 in 2000, $105,000 in 2001 and $110,000 in 2002. In addition, the Company issued 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.

In 2001, the Company entered into a collaboration with Stanford University to pursue certain additional research funded by the National Institutes of Health under an SBIR grant discussed above. Pursuant to agreement, the Company paid Stanford approximately $150,000 in each of 2001 and 2002. In 2002, the Company entered into a research agreement with the University of California, Irvine ("Irvine"), under which it paid Irvine approximately $3,200 in 2002 and $16,000 in 2003. The Company also entered a sponsored research agreement with the University of Texas Medical Branch ("UTMB") under which it paid UTMB approximately $21,000 in 2002 and accrued for payment approximately $56,000 in 2003.

13. 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,	
	2003	2002
Deferred tax assets:		
Capitalized research and development costs	$ 12,540,000	$ 9,690,000
Net operating losses	43,120,000	42,900,000
Research and development credits	4,399,000	4,140,000
Other	326,000	160,000
	60,385,000	56,890,000
Valuation allowance	(60,385,000)	(56,890,000)
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 net deferred tax assets have been fully offset by a valuation allowance. The valuation allowance increased by $3,495,000, $4,880,000, and $3,400,000 during 2003, 2002, and 2001 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:

	2003	2002	2001
Statutory federal income tax (benefit) rate	(34%)	(34%)	(34%)
Increase (decrease) resulting from:			
Expenses not deductible for taxes	(2.1)	(1.2)	—
Other	—	—	5.2
Expiration of State net operating losses	7.7	—	—
Increase in valuation allowance	28.4	35.2	28.8
Effective tax (benefit) rate	0%	0%	0%

STEMCELLS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

As of December 31, 2003, the Company had net operating loss carryforwards for federal income tax purposes of approximately $111,840,000 which expire in the years 2004 through 2023, and federal research and development tax credits of approximately $3,935,000 which expire in the years 2004 through 2013.

As of December 31, 2003, the Company had net operating loss carryforwards for state income tax purposes of approximately $84,850,000 which expire in the years 2004 through 2023, and state research and development tax credits of approximately $464,000 which do not expire.

Utilization of the Company's net operating loss may be subject to substantial annual limitation due to ownership change limitations provide by the Internal Revenue Code and similar state provisions. Such an annual limitation could result in the expiration of the net operating loss before utilization.

14. 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 annual compensation to the plan 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 $60,000, $76,000, and $63,000 for the years ended December 31, 2003, 2002 and 2001, respectively.

15. Quarterly Financial Information (unaudited)

	Quarter			
	First	Second	Third	Fourth
	(In thousands, except per share data)			
Year ended December 31, 2003:				
Total revenue	$ 59	$ 60	$ 33	$ 121
Operating expenses	2,409	2,743	2,451	4,817(1)
Net loss (before deemed dividend)	(2,409)	(2,713)	(2,429)	(4,740)(1)
Net loss applicable to common stockholders	(2,729)	(3,928)	(2,599)	(5,169)(1)
Basic and diluted (loss) per share applicable to common shareholders	$ (0.10)	$ (0.13)	$ (0.08)	$ (0.14)(1)
Year ended December 31, 2002:				
Total revenue	$ 111	$ 125	$ 90	$ 89
Operating expenses	2,876	3,166	2,765	3,098(2)
Net income (loss)	(2,810)	(3,058)	(2,725)	(3,051)(2)
Net loss applicable to common stockholders	(3,130)	(3,543)	(3,045)	(3,558)(2)
Basic and diluted income (loss) per share applicable to common shareholders	$ (0.13)	$ (0.15)	$ (0.12)	$ (0.13)(2)

(1) The fourth quarter includes a wind-down accrual of 2,676 - see note 9.

(2) Restated — see note 1.

Item 9. ***Changes in and Disagreements with Accountants on Accounting and Financial Disclosure***

Not applicable.

Item 9A. ***Controls and Procedures***

(a) *Evaluation of disclosure controls and procedures.* Our management, with the participation of our chief executive officer and (acting) chief financial officer, has evaluated the effectiveness of the design and operation of our 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, our principal executive officer and principal financial officer concluded that these disclosure controls and procedures are effective and designed 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.

In connection with its audit of the Company's consolidated financial statements for the year ended December 31, 2003, Grant Thornton LLP ("Grant Thornton"), the Company's independent accountants, provided advice to the Audit Committee and management of internal control matters with respect to segregation of duties and financial reporting matters that they considered to be deficiencies and which they considered, in the aggregate, to constitute a significant deficiency under standards established by the American Institute of Certified Public Accountants. The Company considered these matters in connection with the year-end closing process and the preparation of the December 31, 2003 consolidated financial statements included in this Form 10-K. In response to the observations made by Grant Thornton, in 2004 the Company will re-evaluate its internal controls and procedures relating to those observations and implement such enhancements as the review suggests to be appropriate.

The design of any system of controls is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, control may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

(b) *Changes in internal controls.* There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended) identified in connection with the evaluation of our internal control performed during our fourth quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

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 2004 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 2004 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 2004 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 2004 Annual Meeting of Shareholders.

PART IV

Item 14. ***Principal Accountant Fees and Services***

The information required by this Item is incorporated by reference from our Proxy Statement for the 2004 Annual Meeting of Shareholders.

Item 15. ***Exhibits, Financial Statement Schedules and Reports on Form 8-K***

(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.

(3) 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.
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	Warrant to Purchase Common Stock — Mark Angelo
4.4X	Warrant to Purchase Common Stock — Robert Farrell
4.5X	Warrant to Purchase Common Stock — Joseph Donahue
4.6X	Warrant to Purchase Common Stock — Hunter Singer
4.7X	Warrant to Purchase Common Stock — May Davis
4.8X	Common Stock Purchase Warrant
4.9X	Callable Warrant
4.10XXX	Registration Rights Agreement dated as of May 10, 2001 between the Registrant and Sativum Investments Limited.
4.11XXX	Warrant, dated May 10, 2001, to Purchase Common Stock issued to Sativum Investments Limited.
4.12XXX	Warrant, dated May 10, 2001, to Purchase Common Stock issued to Pacific Crest Securities, Inc.
4.13XXX	Warrant dated May 10, 2001 to Purchase Common Stock issued to Granite Financial Group, Inc.
4.14XXX	Callable Warrant, dated June 21, 2001, issued to Millennium Partners, L.P.
4.15XXX	Common Stock Purchase Warrant, Class A, dated June 21, 2001, issued to Millennium Partners, L.P.

Exhibit No.	Title or Description
4.16[**]	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.
4.17[**]	Warrant to Purchase Common Stock — Riverview Group, LLC
4.18XXXX	Warrant to Purchase Common Stock — Cantor Fitzgerald & Co.
4.19&&	Warrant to Purchase Common Stock — Riverview Group, LLC
10.1*	Amendment to Registration Rights dated as of February 14, 1992 among the Registrant and certain of its stockholders.
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*	Master Lease and Warrant Agreement dated April 23, 1991 between the Registrant and PacifiCorp Credit, Inc.
10.6*	1988 Stock Option Plan.
10.7*	1992 Equity Incentive Plan.
10.8*	1992 Stock Option Plan for Non-Employee Directors.
10.9**!!!!	1992 Employee Stock Purchase Plan.
10.12++	Research Agreement dated as of March 16, 1994 between NeuroSpheres, Ltd. and Registrant.
10.13++	Term Loan Agreement dated as of September 30, 1994 between The First National Bank of Boston and Registrant.
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**	Confidential treatment requested as to certain portions. The term "confidential treatment" and the mark "**" as used throughout the indicated Exhibits mean that material has been omitted and separately filed with the Commission.
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XXXX	Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrant's Registration Statement filed on Form S-3, File No. 333-75806.
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% Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrant's current report on Form 8-K on December 10, 2003.

(b) Current Reports on Form 8-K.

A Current Report on Form 8-K was filed by the Registrant on October 22, 2003 reporting, under Item 4, that the Registrant's independent public accountants, Ernst & Young LLP had provided notice of their its intent to resign.

A Current Report on Form 8-K was filed by the Registrant on November 12, 2003 reporting, under Item 5, that Riverview Group, LLC had exercised its right to convert all remaining shares of the Registrant's 3% Convertible Preferred Stock held by Riverview.

A Current Report on Form 8-K was filed by the Registrant on December 8, 2003 reporting, under Item 4, that the Registrant had engaged Grant Thornton LLP as its independent public accountants.

A Current Report on Form 8-K was filed by the Registrant on December 10, 2003 reporting, under Item 5, that the Registrant had issued shares of common stock pursuant to its shelf registration statement on Form S-3.

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: April 5, 2004

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)	April 5, 2004
/s/ GEORGE KOSHY George Koshy	Controller and Acting Chief Financial Officer (principal accounting officer)	April 5, 2004
/s/ ERIC BJERKHOLT Eric Bjerkholt	Director	April 5, 2004
/s/ RICARDO B. LEVY PH.D. Ricardo B. Levy, Ph.D.	Director	April 5, 2004
/s/ ROGER PERLMUTTER, M.D. Roger Perlmutter, M.D.	Director	April 5, 2004
/s/ JOHN J. SCHWARTZ, PH.D. John J. Schwartz, Ph.D.	Director, Chairman of the Board	April 5, 2004
/s/ IRVING L. WEISSMAN, M.D. Irving L. Weissman, M.D.	Director	April 5, 2004

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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.
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	Warrant to Purchase Common Stock — Mark Angelo
4.4X	Warrant to Purchase Common Stock — Robert Farrell
4.5X	Warrant to Purchase Common Stock — Joseph Donahue
4.6X	Warrant to Purchase Common Stock — Hunter Singer
4.7X	Warrant to Purchase Common Stock — May Davis
4.8X	Common Stock Purchase Warrant
4.9X	Callable Warrant
4.10XXX	Registration Rights Agreement dated as of May 10, 2001 between the Registrant and Sativum Investments Limited.
4.11XXX	Warrant, dated May 10, 2001, to Purchase Common Stock issued to Sativum Investments Limited.
4.12XXX	Warrant, dated May 10, 2001, to Purchase Common Stock issued to Pacific Crest Securities, Inc.
4.13XXX	Warrant dated May 10, 2001 to Purchase Common Stock issued to Granite Financial Group, Inc.
4.14XXX	Callable Warrant, dated June 21, 2001, issued to Millennium Partners, L.P.
4.15XXX	Common Stock Purchase Warrant, Class A, dated June 21, 2001, issued to Millennium Partners, L.P.
4.16[**]	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.
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10.1*	Amendment to Registration Rights dated as of February 14, 1992 among the Registrant and certain of its stockholders.
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*	Master Lease and Warrant Agreement dated April 23, 1991 between the Registrant and PacifiCorp Credit, Inc.
10.6*	1988 Stock Option Plan.
10.7*	1992 Equity Incentive Plan.
10.8*	1992 Stock Option Plan for Non-Employee Directors.
10.9**!!!!	1992 Employee Stock Purchase Plan.
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Exhibit 14.1

STEMCELLS

CODE OF ETHICS AND CONDUCT

APPROVED: _____

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STEMCELLS

Corporate of Conduct

1. GENERAL POLICY

It has always been the policy of StemCells, Inc. and StemCells California, Inc. (collectively, "StemCells" or the "Company") to conduct business in compliance with all applicable laws, rules and regulations and with integrity. This is our obligation to our shareholders, to our community, to those government agencies that regulate StemCells, to the patients who will eventually be treated by our products and to their physicians, and to ourselves. Because of SEC rules under the Sarbanes Oxley Act and NASDAQ requirements, we have restated our policy in this formal way, but our underlying commitment to honorable and lawful conduct has not changed.

Each StemCells employee, officer and director must comply with the policies set forth in this Code of Ethics and Conduct (the "Code"). All employees, officer and directors should review this Code or summary materials that may be issued in conjunction with the Code, and make sure that these policies guide their actions. If any employee, officer or director becomes aware of an issue of legal compliance which is not adequately addressed in this Code, the Compliance Officer should be notified. The text of StemCells' Corporate Code of Ethics and Conduct can also be found at www.stemcellsinc.com.

StemCells takes compliance with laws, regulations, rules and the Code seriously. Any intentional violation will result in disciplinary action up to and including dismissal from employment. Disciplinary actions may also apply to an employee's supervisor who directs or approves the employee's improper actions or who is aware of those actions, but does not act appropriately to correct them or fails to exercise appropriate supervision. In addition to imposing its own discipline, StemCells may also bring violations of law or suspected violations of law to the attention of appropriate law enforcement personnel.

This Code includes statements of StemCells' policy in a number of specific areas. We need your help to comply with these policies. To that end, the Company's General Counsel has been named as the Code of Ethics and Conduct Compliance Officer, charged with reviewing the Company's compliance policies and specific compliance situations that may arise.

If a question arises as to whether any action complies with StemCells policies or applicable law, an employee, officer or director should present that question to that directly to the Compliance Officer (650.475.3100, extension 106 or iris.brest@stemcellsinc.com. Concerns about violations of any part of this Code may be made anonymously, by sending it to the Compliance Officer at the Company's headquarters, at 3155 Porter Drive, Palo Alto, California 94304. Simply ask your question or give any information you may have. If you are reporting a possible violation, it is important to give the information you have in as much detail as possible, and as accurately as you can, neither overstating it nor omitting any relevant facts. In raising an issue, you may remain anonymous, although you are encouraged to identify yourself. Should you choose to identify yourself, your identity will be kept confidential to the extent feasible or

permissible under the law. All employees, officers and directors of StemCells have the commitment of the Company and of the Audit Committee of its Board of Directors that they will be protected from retaliation for any report of possible misconduct made in good faith. Knowingly making a false accusation or providing false information to the Company, however, is improper, a violation of this Code, and an action that subjects the actor to discipline. Failure to report known or suspected wrongdoing of which any member of StemCells has knowledge may, by itself, subject that person to disciplinary action.

This Code generally highlights some of the more important legal principles with which employees, officers and directors are expected to be familiar. The fact that this Code does not specifically reference other applicable laws (some of which may be covered in other StemCells policies), does not diminish their importance or application. There are, of course, other StemCells policies separate from this one; these are made available to, and must be adhered to by, employees of the Company.

2. COMPLIANCE WITH THE LAW

StemCells seeks to comply with all applicable government laws, rules and regulations. We need the cooperation of all employees, officers and directors to do so and to bring lapses or violations to light. While some regulatory schemes may not carry criminal penalties, they control the licenses and certifications that allow the Company to conduct its business. StemCells' continued ability to operate depends upon your help.

Some of the regulatory programs that affect the Company and with which employees may deal with in the course of their duties include, but are not limited to, the following:

- Labor and Wage & Hour laws.
- Occupational Safety and Health regulation.
- Antitrust laws.
- Building, safety, and fire codes.
- Regulations concerning use of animals in research.
- Laws and regulations of hazardous materials and radiation.
- Laws and regulations covering biotechnology products and pharmaceuticals.
- Healthcare laws and regulations.
- Export Control System.
- Environmental Programs.

The Compliance Officer can provide employees with information on these rules, and can direct questions or concerns to the proper person.

3. COMPANY STOCK

Because our stock is publicly traded, certain of the Company's activities of are subject to certain provisions of the federal securities laws. These laws govern the dissemination or use of information about the affairs of StemCells or its subsidiaries or affiliates, and other information which might be of interest to persons considering the purchase or sale of the stocks or bonds. Violations of the federal securities laws could subject you and the Company to stiff criminal and

civil penalties. Accordingly, StemCells does not sanction and will not tolerate any conduct that risks a violation of these laws.

A. DISCLOSURE OF TRANSACTIONS IN STEMCELLS SECURITIES

The Securities and Exchange Commission ("SEC") requires continuing disclosure of transactions in the Company's publicly traded securities by the Company, its directors, executive officers, major shareholders and certain other affiliated persons. We are committed to complying with obligations related this disclosure. Covered transactions are reported to the SEC and the reports are public; they may be viewed through the StemCells website, www.stemcellsinc.com, by clicking on the "Investor" tab and then selecting "SEC Filings" or SEC Filings Forms 3-5."

B. INSIDER TRADING

It is illegal for any person, either personally or on behalf of others, (i) to buy or sell securities while in possession of material nonpublic information, or (ii) to communicate (to "tip") material nonpublic information to another person who trades in the securities on the basis of the information or who in turn passes the information on to someone who trades. All directors, officers, employees and temporary insiders, such as accountants and lawyers, must comply with these "insider trading" restrictions.

All information that an investor might consider important in deciding whether to buy, sell, or hold securities is considered "material." Information that is likely to or may affect the price of securities is almost always material. Examples of some types of material information are:

- financial and operating results for the month, quarter or year;
- financial forecasts, including proposed or approved budgets;
- possible mergers, acquisitions, joint ventures and other purchases and sales of products, businesses, companies and investments in companies;
- obtaining or losing important contracts, such as critical licensing agreements;
- major personnel changes; and
- major litigation developments.

All information about StemCells or its business plans is potentially "insider" information until publicly disclosed or made available by StemCells. Thus, StemCells employees, officer or directors may not disclose it to others. This prohibition includes disclosure to relatives, friends, or business or social acquaintances. Information is considered to be nonpublic unless it has been effectively disclosed to the public (e.g., by a press release). Further, the information must not only be publicly disclosed, but there must also be adequate time for the market as a whole to digest the information.

When an employee, officer or director knows material nonpublic information about StemCells, he or she is prohibited from three activities:

- trading in the stocks or bonds for his or her own account or for the account of another (including any trust of which the employee, officer or director is a trustee, or any other entity that buys or sells securities, such as a mutual fund);

- having anyone else trade for the employee, officer or director; and

- disclosing the information to anyone else who then trades or in turn "tips" another person who trades.

Neither the employee nor anyone acting on the employee's behalf, nor anyone who learns the information from the employee, may trade for as long as the information continues to be material and nonpublic.

If an employee, officer or director is considering buying or selling the stocks or bonds and has a question as to whether the transaction might involve the improper use of material nonpublic information, that individual should obtain specific prior approval from the General Counsel. Consultation with the individual's own attorney is also strongly encouraged.

On a related point, you should remember that outsiders may be listening or watching and may be able to pick up information they should not have. No discussion of StemCells' material nonpublic information should take place in public areas -- such as corridors, elevators, and restaurants -- and care should be taken in the handling and disposal of papers containing material nonpublic information. Any questions or concerns about disclosure of nonpublic information should be brought to the Acting Chief Financial Officer.

4. CONFIDENTIAL INFORMATION

You may be entrusted with StemCells' confidential business information. You are required to safeguard and use such information only for Company purposes. Confidential information includes all non-public information that might be of use to competitors or harmful to StemCells, if disclosed. You are expected to maintain the confidentiality of any and all such information entrusted to you by the Company or others with whom we have confidential relationships. Examples of confidential business information include, but are not limited to: the Company's trade secrets, business plans, detailed income, cost and profit figures, new product plans, research and development ideas or information, manufacturing processes, and information about potential acquisitions, divestitures and investments. The Company often enters confidentiality agreements with third parties, such as individuals, universities and companies with which we are doing or considering doing business, and information acquired from those parties is likely to be confidential; in these cases, any employee, consultant or other agent of the Company with access to that information is required to maintain the confidentiality of the other party's information. If you are not sure, you should check with your supervisor or with company counsel. Failure to observe these obligations of confidentiality may compromise our competitive advantage over competitors and may additionally result in a breach of contract or a violation of securities, antitrust or employment laws. You should not discuss confidential Company information outside the Company, even with your own family.

Consultants retained by StemCells sign appropriate confidentiality agreements with the Company.

5. SPECIAL ETHICAL OBLIGATIONS FOR EMPLOYEES WITH FINANCIAL REPORTING RESPONSIBILITIES

As a public company, we are also committed to carrying out all continuing disclosure obligations in a full, fair, accurate, timely and understandable manner. Depending on their position with StemCells, employees, officers or directors may be called upon to provide information to assure that the Company's public reports are complete, fair and understandable. StemCells expects all of its personnel to take this responsibility very seriously and to provide prompt and accurate answers to inquiries related to the Company's public disclosure requirements.

The Finance Department bears a special responsibility for promoting integrity throughout the organization. The Chief Executive Officer and Finance Department personnel have a special role both to adhere to these principles themselves and also to ensure that a culture exists throughout the company as a whole that ensures the fair and timely reporting of StemCells' financial results and condition.

Because of this special role, the Chief Executive Officer and the members of StemCells' Finance Department are obligated to:

- Act with honesty and integrity, avoiding actual or apparent conflicts of interest in personal and professional relationships.

- Provide information that is accurate, complete, objective, relevant, timely and understandable to ensure full, fair, accurate, timely, and understandable disclosure in reports and documents that StemCells files with, or submits to, government agencies and in other public communications.

- Comply with rules and regulations of federal, state, provincial and local governments, and other appropriate private and public regulatory agencies.

- Respect the confidentiality of information acquired in the course of work except when authorized or otherwise legally obligated to disclose. Confidential information acquired in the course of work is not to be used for personal advantage.

- Promote and be an example of ethical behavior as a responsible partner among peers, in the work environment and the community.

- Promote the responsible use of and control over Company assets.

Employees, officers and directors should promptly report to the Compliance Officer and/or the Chairman of the Audit Committee any conduct that the individual believes to be a violation of law or business ethics or of any provision of the Code, including any transaction or relationship that reasonably could be expected to give rise to such a conflict. Violations, including failures to report potential violations by others, will be viewed as a severe disciplinary matter that may result in personnel action, including termination of employment.

6. CONTINUING DISCLOSURE OBLIGATIONS AND ACCURACY OF BUSINESS RECORDS

In order to support all our disclosure obligations, it is StemCells' policy to record and report our factual information honestly and accurately. Failure to do so is a grave offense and will subject an individual to severe discipline by the Company, as well as possible criminal and civil penalties.

Investors count on StemCells to provide accurate information about our business and to make responsible business decisions based on reliable records. Every individual involved in creating, transmitting or entering information into StemCells' financial and operational records is responsible for doing so fully, fairly, accurately and timely, and with appropriate supporting documentation. No employee, officer or director may make any entry that intentionally hides or disguises the true nature of any transaction. For example, no individual may understate or overstate known liabilities and assets, record false revenues or revenues early, defer or accelerate the proper period for recording items that should be expensed, falsify quality or safety results, or process and submit false or inaccurate invoices.

Compliance with established accounting procedures, StemCells' system of internal controls, and generally accepted accounting principles is necessary at all times. In order to achieve such compliance, the Company's records, books and documents must accurately reflect the transactions and provide a full account of the Company's assets, liabilities, revenues and expenses. Knowingly entering inaccurate or fraudulent information into StemCells' accounting system is unacceptable and may be illegal. Any individual who has knowledge that an entry or process is false and material is expected to consult the Compliance Officer. In addition, it is the responsibility of each employee, officer and director to cooperate with the Company's authorized auditors.

When billing others for the Company's services, StemCells has an obligation to exercise diligence, care, and integrity. StemCells is committed to maintaining the accuracy of every invoice it processes and submits. Each employee who is involved in submitting charges, preparing claims, billing, and documenting services is expected to monitor compliance with applicable rules and maintain the highest standards of personal, professional, and institutional responsibility. By the same token, each employee who is involved with processing and documenting vendors' or contractors' claims for payment is similarly expected to maintain the highest standards of professionalism and ethics. Any false, inaccurate, or questionable practices relating to billing others or to processing claims made by others for payment should be reported immediately to a supervisor, the Controller, or the Compliance Officer.

Every individual should also be aware that almost all business records of the Company may become subject to public disclosure in the course of litigation or governmental investigation. Records are also often obtained by outside parties or the media. Employees should therefore attempt to be as clear, concise, truthful and accurate as possible when recording any information. They must refrain from making legal conclusions or commenting on legal positions taken by the Company or others. They must also avoid exaggeration, colorful language, and derogatory characterizations of people and their motives. StemCells will not tolerate any conduct that creates an inaccurate impression of the Company's business operations.

7. PROTECTION AND PROPER USE OF COMPANY ASSETS

Employees, officers and directors should protect the Company's assets and ensure their efficient use. Theft, carelessness and waste have a direct impact on the Company's profitability. All Company assets should be used for legitimate business purposes.

A. COMPUTERS, THE INTERNET AND E-MAIL

Everyone who works with the Company's computer-based resources is responsible complying with StemCells' policy on Use of Technology and the Internet, which appears in the Employee Handbook. Employees should take care to understand the risks and ensure that the security features of the computer-based resources are not compromised. Information created, transmitted or accessed on Company networks is Company property, and StemCells reserves the right to monitor or restrict access to it. Individual supervisors are responsible for ensuring that Company resources are used productively or to enhance employees' skills and job performance.

Computer software used in connection with StemCells' business must be properly licensed and used only in accordance with that license. Using unlicensed software could constitute copyright infringement. If an employee has any questions as to whether his or her use of computer software is licensed, he or she should consult with the IT Manager or the Compliance Officer.

The same level of care should be taken when using StemCells' e-mail, internet and voice mail systems as is used in written documents. For example, confidential information about StemCells should not be disclosed on electronic bulletin boards, in chat rooms or posted on an internet website.

8. CORPORATE OPPORTUNITIES

Employees, officers and directors are prohibited from (a) taking for themselves personally opportunities that they discover through the use of Company property, information or position, (b) using Company property, information or position for personal gain, and (c) competing with the Company. An employee, officer or director owes a duty to the Company to advance its legitimate interests when the opportunity to do so arises.

9. FAIR DEALING

Employees, officers and directors should endeavor to deal fairly with the Company's suppliers, competitors and employees, and should not take unfair advantage of anyone through manipulation, concealment, abuse of privileged information, misrepresentation of material facts, or any other unfair-dealing practices.

10. CONFLICTS OF INTEREST

StemCells employees, officers and directors should avoid all potential conflicts of interest or situations that give the appearance of such conflict of interest. A conflict of interest occurs when the private interest of a StemCells employee (or an immediate family or household member or someone with whom you have an intimate relationship) interferes, in any way -- or

even appears to interfere -- with the duties performed by the employee or with the interests of the Company as a whole. A conflict situation can arise when an employee, officer or director takes actions or has interests that may make it difficult to perform his or her work objectively and effectively. Conflicts of interest also arise when an employee, officer or director, or a member of his or her family, receives improper personal benefits as a result of his or her position in the Company. Loans to, or guarantees of obligations of, such persons are of special concern.

In order to avoid conflicts of interest, StemCells employees, officers or directors may not be employed by, act as a consultant to, or have an independent business relationship with any of StemCells' competitors or suppliers. Nor may employees, officers or directors invest in any customer, supplier, or competitor (other than through mutual funds or through holdings of less than one-half percent of the outstanding shares of publicly traded securities) unless they first obtain written permission from the Chief Executive Officer. Employees, officers or directors should not have other outside employment or business interests that place them in the position of (i) appearing to represent StemCells, (ii) providing goods or services substantially similar to those StemCells provides or is considering making available, or (iii) lessening their efficiency, productivity, or dedication to StemCells in performing their everyday duties. Employees, officers and directors may not have an interest in or speculate in anything of value which may be affected by StemCells' business. Employees, officers or directors may not divulge or use StemCells' confidential information -- such as financial data, computer programs, technical methods or scientific discoveries -- for their own personal or business purposes.

Any personal or business activities by an employee, officer or director that may raise concerns about conflict, potential conflict or apparent conflict of interest must be disclosed to and approved in advance by the Compliance Officer. You should also obtain the approval of a supervising officer when accepting a board position with a not-for-profit entity, when there may be a StemCells business relationship with the entity or an expectation of financial or other support from StemCells.

11. GIFTS, MEALS AND ENTERTAINMENT

A. ENTERTAINMENT AND GIFTS

StemCells recognizes that in some instances, gifts, favors and entertainment can provide an entirely appropriate means of furthering a business relationship. These are permitted only when all of the following conditions are met:

- Public disclosure would not embarrass StemCells.

- They are of limited value ($50.00 or less).

- They are consistent with our business practices.

No employee, officer or director should accept or provide gifts of more than $50 in connection with their business dealings. The offer or receipt of any such gift over $50 should be reported immediately to the Compliance Officer. Normal business courtesies involving no more than ordinary amenities (such as lunch, dinner, a spectator event, or a golf game) are permitted, as are

token non-cash gifts of nominal value. The guiding principle is that no gift, favor or entertainment should be accepted or provided if it will obligate, or appear to obligate, the recipient. If you are uncertain about the propriety of a gift, you should contact the Compliance Officer for guidance. StemCells employees may not offer, give, solicit, or receive any payment that could appear to be a bribe, kickback, payoff, or other irregular type of payment.

B. RELATIONSHIPS WITH GOVERNMENT PERSONNEL

Separate and more stringent gift, meals, and entertainment rules apply to dealings with government officials. Federal and state anti-kickback laws prohibit StemCells and its representatives from knowingly and willfully offering, paying, requesting, or receiving any money or other benefit, directly or indirectly, in return for obtaining or rewarding favorable treatment in connection with the award of a government contract. Any employee who becomes aware of any such conduct should immediately report it to the Compliance Officer.

The anti-kickback laws must be considered whenever something of value is given or received by StemCells or its representatives or affiliates that is in any way connected to work performed for the government. There are many transactions that may violate the anti-kickback rules. As a result, no one acting on behalf of StemCells may offer or accept gifts, loans, rebates, services, or payment of any kind to or from government suppliers and vendors without first consulting the Compliance Officer.

C. BUSINESS DEALINGS IN FOREIGN COUNTRIES

Federal law prohibits U.S. companies, and those acting on their behalf, from bribing foreign officials to obtain or retain business. Foreign officials include officers and employees of a foreign government or of a foreign governmental department or agency. Indirect payments including those to agents or third parties with the knowledge that at least a portion of the payment will be given to a foreign official for an illegal purpose are prohibited. StemCells will not tolerate any conduct that violates this law.

12. INTERACTING WITH THE GOVERNMENT

A. RELATIONS WITH GOVERNMENT

StemCells values its good relations with local, state, federal and foreign governments. We are committed to being a "good corporate citizen" and are proud of the contributions we have made to help the communities where we do business.

It is StemCells' policy is to maintain good relations with local, state and federal governments and government agencies, to deal honestly and fairly with government representatives and agents, and to comply with valid and reasonable governmental requests and processes. It is a violation of the Company's policy to provide false or misleading information to any government agent or representative, or to encourage anyone else to do so. It is a violation of the Company's policy to destroy records relevant to a fact-finding process, or to direct or encourage anyone else to do so. As noted elsewhere, violations of this policy will give rise to disciplinary action up to and including termination of employment. See Paragraph 19 for instructions on how to deal with government investigations or inquiries.

13. MARKET COMPETITION

StemCells is committed to complying with all state and federal antitrust laws. These laws cover matters like prohibitions on price-fixing, dividing markets or territories, and other unlawful agreements. Any questions that arise in this area should be addressed to the Compliance Officer.

14. PURCHASING

Purchasing decisions must be made in accordance with applicable StemCells policy. In addition, the prohibitions discussed in Section 11 of this Code, entitled "Gifts, Meals and Entertainment" apply to purchasing decisions. Purchasing decisions must in all instances be made free from any conflicts of interest that could affect the outcome. StemCells is committed to a fair and objective procurement system which results in the acquisition of quality goods and services at a fair price.

15. POLITICAL CONTRIBUTIONS

StemCells employees are free to participate in civic and political activities to the extent they wish to do so. The Company's direct political activities are, however, limited by law. Corporations may not make any contributions -- whether direct or indirect -- to candidates for federal office. Thus, StemCells may not contribute any money or products, or lend the use of vehicles, equipment, or facilities, to candidates for federal office. Nor may StemCells make contributions to political action committees that make contributions to candidates for federal office. Neither StemCells, nor supervisory personnel within StemCells, may require any employees to make any such contribution. Finally, StemCells cannot reimburse its employees for any money they contribute to political candidates or campaigns.

California law also limits the extent to which corporations and individuals may contribute to political candidates. Any question about the propriety of political activity or contribution should be directed to the Compliance Officer.

16. EXPORTS AND IMPORTS

StemCells employees and agents should be aware that there are also many U.S. laws that govern the import of items into the United States. Among other things, these laws control what can be imported into the United States, how the articles should be marked, and the amount of duty to be paid. StemCells complies with all U.S. import laws. If an employee or agent is uncertain about whether a transaction involving the importation of items into the United States complies with these laws, he or she must contact the Compliance Officer for guidance.

There are also many U.S. laws and regulations governing international trade and commerce which serve to limit the export of certain products to certain countries. StemCells is committed to complying with those laws. Because these rules are complicated and change periodically, at such time as the Company has products, its employees and agents seeking to export a product will first confirm the legal trade status of that country and, if uncertain about whether a foreign sale complies with U.S. export laws, contact the Compliance Officer for guidance.

17. MEDIA/PUBLIC RELATIONS AND GOVERNMENTAL INQUIRIES

When StemCells provides information to the news media, securities analysts and stockholders, it has an obligation to do so accurately and completely. In order to ensure that StemCells complies with its obligations, employees receiving inquiries regarding StemCells' activities, results, plans or position on public issues should refer the request to the Company's President and Chief Executive Officer, unless he has designated another person to act as corporate spokesperson. StemCells employees may not speak publicly for the company unless specifically authorized by senior management.

In the unlikely event that a government representative seeks to interview an employee regarding StemCells' business activities or an employee's work at the Company, the employee should contact the General Counsel.

Occasionally, someone will arrive unexpectedly or a government representative may seek to inspect the Company's facility. If this happens, an employee should immediately notify his or her Manager or Supervisor and contact the General Counsel.

18. ENVIRONMENTAL COMPLIANCE

In conducting its business, StemCells is committed to compliance with all applicable laws and regulations relating to the protection of the environment, and in particular those governing the incineration, treatment, storage, disposal, and discharge of waste. Failure to comply, even if unintentional, could result in significant penalties for StemCells. Accordingly, if an employee suspects noncompliance or violation of these laws and regulations, the circumstances should be reported immediately to the Health Safety Officer or the Compliance Officer.

19. RESPONSE TO INVESTIGATIONS OR GOVERNMENT INQUIRIES

Numerous state and federal agencies have broad legal authority to investigate StemCells and review its records. StemCells will comply with subpoenas and respond to governmental investigations as required by law. The Compliance Officer is responsible for coordinating StemCells' response to investigations and the release of any information.

If an employee or officer receives an investigative demand, subpoena, or search warrant involving StemCells, it should be brought immediately to the General Counsel. No documents should be released or copied without authorization from the General Counsel. If an investigator, agent, or government auditor comes to StemCells' facility, contact the President and CEO or his designee immediately. In the absence of the Chief Executive Officer, contact StemCells' General Counsel. Ask the investigator to wait until the contacted individual arrives before reviewing any documents or conducting any interviews. The Compliance Officer or the General Counsel is responsible for assisting with any interviews. If StemCells employees are approached by government investigators and agents while they are away from StemCells' premises and asked to discuss Company affairs, the employee has the right to insist on being interviewed during business hours with a supervisor or counsel present. Alternatively, any employee may choose to be interviewed or not to be interviewed at all. The Company recognizes the choice of how to proceed in these circumstances is left entirely the employees. If an employee chooses to

speak with government personnel, it is essential that the employee be truthful. Questions may be directed to the Compliance Officer.

StemCells employees are not permitted to alter, remove, or destroy documents or records of StemCells except in accordance with regular document retention and destruction practices. If a government investigation should be conducted, it is essential that no documents or records be destroyed or damaged during its course.

20. AMENDMENTS AND WAIVERS

This Code applies to all StemCells employees, officers and directors. There shall be no substantive amendment or waiver of any part of the Code affecting the directors, senior financial officers, or executive officers, except by a vote of the Board of Directors, which will ascertain whether an amendment or waiver is appropriate and ensure that the amendment or waiver is accompanied by appropriate controls designed to protect StemCells.

In the event that any substantive amendment is made or any waiver of the type requiring disclosure is granted, the waiver will be posted on the StemCells' website and/or filed with the SEC as appropriate, thereby allowing the StemCells shareholders to evaluate the merits of the particular waiver.

EMPLOYEE CERTIFICATION AND AGREEMENT OF COMPLIANCE

I certify that I have read StemCells' "Corporate Code of Ethics and Conduct" (the "Code") and fully understand the obligations set forth in those documents.

The Code includes a statement of StemCells' policies, which are designed to ensure that the Company and its employees conduct StemCells' business in compliance with all federal and state laws governing its operations and the conduct is consistent with the highest standards of business and professional ethics.

I understand that the Code obligates all employees to carry out their duties for StemCells in accordance with these policies and with applicable laws. I further understand that any violation of these policies or applicable laws, or any deviation from appropriate ethical standards, will subject an employee to disciplinary action. Indeed, I understand that even a failure to report such a violation or deviation may, by itself, subject an employee to disciplinary action.

I am also aware that in the event that I have any question about whether an action complies with StemCells' policies or applicable law, I should present that question to my supervisor, the Compliance Coordinator at my facility, or, if appropriate, directly to the Company's Compliance Officer or other members of the Compliance Committee.

With these understandings of my obligations, I agree to act in accordance with the StemCells policies set forth in the Code. Having read the Code, I am not currently aware of any matter that should be brought to the attention of Compliance personnel as a violation or suspected violation of this Code.

Signed: _____

Print Name: _____

Date: _____

EXHIBIT 23.1

CONSENT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

We consent to the incorporation by reference in the Registration Statement (Form S-8 No. 333-66700) pertaining to the 2001 Equity Incentive Plan, in the Registration Statements (Form S-8 No. 333-49524 and 333-29335) pertaining to the 1998 Incentive Stock Plan, 1992 Equity Incentive Plan, 1992 Employee Stock Purchase Plan and 1992 Stock Option Plan for Non-Employee Directors, in the Registration Statement (Form S-8 No. 333-10773) pertaining to the 1992 Equity Incentive Plan, in the Registration Statement (Form S-8 No. 333-37313) pertaining to the 1996 StemCells, Inc. Stock Option Plan and the 1997 CytoTherapeutics, Inc. StemCells Research Stock Option Plan, in the Registration Statements (Form S-3 No. 333-75806, No. 333-66692, No. 333-61726 and No. 333-83992) of Stemcells, Inc. and in the Registration Statements (Form S-3 No. 333-68900 and No. 333-91228) of CytoTherapeutics, Inc. and in the related Prospectuses of our report dated March 4, 2003, except for Note 1 - Restatement of Consolidated Financial Statements, as to which the date is March 31, 2004, with respect to the consolidated financial statements of StemCells, Inc. included in the Annual Report (Form 10-K) for the year ended December 31, 2003.

/s/ Ernst & Young LLP

Palo Alto, California
March 31, 2004

EXHIBIT 23.2

CONSENT OF GRANT THORNTON LLP, INDEPENDENT AUDITORS

We consent to the incorporation by reference in this Annual Report on Form 10-K for the year ended December 31, 2003, of our report dated March 26, 2004, appearing in the Registration Statement (Form S-8 No. 333-66700) pertaining to the 2001 Equity Incentive Plan, in the Registration Statements (Form S-8 No. 333-49524 and 333-29335) pertaining to the 1998 Incentive Stock Plan, 1992 Equity Incentive Plan, 1992 Employee Stock Purchase Plan and 1992 Stock Option Plan for Non-Employee Directors, in the Registration Statement (Form S-8 No. 333-10773) pertaining to the 1992 Equity Incentive Plan, in the Registration Statement (Form S-8 No. 333-37313) pertaining to the 1996 StemCells, Inc. Stock Option Plan and the 1997 CytoTherapeutics, Inc. StemCells Research Stock Option Plan, in the Registration Statements (Form S-3 No. 333-75806, No. 333-66692, No. 333-61726 and No. 333-83992) of Stemcells, Inc. and in the Registration Statements (Form S-3 No. 333-68900 and No. 333-91228) of CytoTherapeutics, Inc.

/s/ Grant Thornton LLP

San Jose, California
March 31, 2004

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 annual 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 annual 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)) 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. 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: April 5, 2004

/s/ Martin McGlynn
- --
Martin McGlynn
President and Chief Executive Officer

EXHIBIT 31.2

CERTIFICATION OF ACTING CHIEF FINANCIAL OFFICER
UNDER SECTION 302 OF THE SARBANES-OXLEY ACT

I, George Koshy, certify that:

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

(2) Based on my knowledge, this annual 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 annual 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)) 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. 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: April 5, 2004

/s/ George Koshy
- --
George Koshy
Controller and Acting 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 ending December 31, 2003 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: April 5, 2004

/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 ending December 31, 2003 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, George Koshy, Controller and Acting 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: April 5, 2004

/s/ George Koshy
- ----------
George Koshy
Controller and Acting Chief Financial Officer

CAUTIONARY FACTORS RELEVANT TO FORWARD-LOOKING INFORMATION

YOU SHOULD CAREFULLY CONSIDER THE RISKS DESCRIBED BELOW BEFORE MAKING AN INVESTMENT DECISION REGARDING STEMCELLS, INC. WE MAY FACE OTHER RISKS NOT DESCRIBED BELOW THAT WE DO NOT PRESENTLY KNOW ABOUT OR THAT WE CURRENTLY DEEM IMMATERIAL.

Our business, financial condition or results of operations could be materially adversely affected by any of these risks. Consequentially, the trading price of our common stock could decline, resulting in the loss of all or part of your investment.

OUR FINANCIAL SITUATION IS PRECARIOUS AND, BASED ON CURRENTLY ESTIMATED OPERATING EXPENSES OUR EXISTING CAPITAL RESOURCES ARE ONLY SUFFICIENT TO FUND OUR OPERATIONS THROUGH THE END OF 2004.

The Company has incurred significant operating losses and negative cash flows since inception. The Company has 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 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 are only sufficient to fund our operations through the end of 2004, based on our current estimates of operating expenses for this year. These conditions raise doubt about StemCells' ability to continue as a going concern. 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.

We intend to pursue opportunities to obtain additional financing in the future through equity and debt financings, 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. Our existing capital resources are not sufficient to fund our operations through the end of 2004. 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 TECHNOLOGY IS AT AN EARLY STAGE OF DISCOVERY AND DEVELOPMENT, AND WE MAY FAIL TO DEVELOP ANY COMMERCIALLY ACCEPTABLE PRODUCTS.

Our stem cell technology still in the pre-clinical stage for the brain stem cell and at the discovery phase for the liver and pancreas stem cells and has not yet led to the development of any product. 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. 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 early pre-clinical research may not be indicative of the results that will be obtained in later stages of pre-clinical or clinical research. If regulatory authorities do not approve our products, or if we fail to maintain regulatory compliance, we would have limited ability 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.

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 employed. Immunosuppression has not been tested with our therapies since we have not yet conducted any clinical trials.

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 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 on average, lease payments and payments for operating costs of approximately $1,450,000 per year before sub-tenant rent income for our former science and administrative facility, which we have leased through June 30, 2013, and debt service payments and payments for operating costs of approximately $500,000 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, 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.

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.

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 and 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, or 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 make 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, or may not afford us adequate protection from competing products. In addition, third parties may challenge our patents or governmental authorities may declare them 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 proceedings to determine priority of invention. This 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. Even if a patent issues, a court could decide that the patent was issued invalidly. Further, patents issue for a limited term and our patents may expire before we utilize them profitably. Under the procedures of the European Patent Office, third parties may oppose our issued European patents during the relevant opposition period. Such 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. While we are confident in our position, there is no guarantee that we will prevail. If we are unsuccessful in our defense of the opposed patents, all claimed rights in the opposed patents will be lost in Europe.

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 and keep them secret. 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 inventions.

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. If third party patents or patent applications contain claims infringed by our technology and these claims are valid, we may be unable to obtain licenses to these patents at a reasonable cost, if at all, and may also be unable to develop or obtain alternative technology. If we are unable to obtain such licenses at a reasonable cost, our business could be significantly harmed. 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. Licensors 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 risks of third party patents and/or technology. 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 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, Transkaryotic Therapies, BioMarin, Celgen, Biogen, and Titan Pharmaceuticals. Finally, we also expect to compete with smaller biotechnology companies, some of which are privately owned, such as Neuralstem, Geron, NeuroNova, ReNeuron, ES Cell International, and CellFactors/Diacrin.

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 intend to submit our first IND for Batten's Disease, which is one of the Lysosomal Storage Diseases (LSDs) that affect the CNS. There are, so far as we know, no approved therapies for Battens or any of the other CNS-specific LSDs, but other companies, including Genzyme, BioMarin, and Transkaryotic Therapies, have products approved to treat peripheral aspects of some of the other LSDs, and other products are in clinical trials.

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, Serono. Consequently, should StemCells Inc, successfully develop a cell-based therapy for diabetes, we would expect to face severe competition from these and similar companies.

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.

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. 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. Further, we may not be able to obtain such cells in the quantity or quality sufficient to satisfy the commercial requirements of our potential products. As a result, we may be unable to develop or produce our products in a profitable manner.

Although we do not use embryonic stem cells, government regulation and threatened regulation of embryonic tissue may lead outstanding 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 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 impact our ability to attract collaborators and investors and our stock price.

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 be granted orphan drug status with respect to a potential product.

IF WE LOSE THE SERVICES OF KEY PERSONNEL OR ARE UNABLE TO ATTRACT AND RETAIN ADDITIONAL QUALIFIED PERSONNEL, WE MAY HAVE TO DELAY, REDUCE OR ELIMINATE SOME OR ALL OF OUR RESEARCH AND DEVELOPMENT PROGRAMS.

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 president and the directors of our neural stem cell and liver stem cell programs. 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.

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. 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 policy 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 pre-clinical and clinical testing of our anticipated products, pursuit of regulatory approvals, establishment of production capabilities, 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 commercializing them ourselves. If we are unable to draw down on our existing equity line or choose not to do so, 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 any such arrangements successfully will depend upon market conditions and, more specifically, on continued progress in our research and development efforts. We are prohibited from entering into other stand-by equity based credit facilities during the term of the common stock purchase agreement that governs our existing equity line.

IF OUR COMMON STOCK PRICE DROPS SIGNIFICANTLY, WE MAY BE DELISTED FROM THE NASDAQ SMALLCAP MARKET, WHICH COULD ELIMINATE THE TRADING MARKET FOR OUR COMMON STOCK.

Our common stock is quoted on the Nasdaq SmallCap Market. In order to continue to be included in the Nasdaq Small Cap Market, a company must meet Nasdaq's maintenance criteria. The maintenance criteria most applicable to us requires a minimum bid price of $1.00 per share and additionally, we must maintain $2.5 million in stockholders' equity. Stockholders' equity is composed of three fundamental sources: capital stock, additional paid-in-capital, and retained earnings. Capital stock represents ownership interest in the corporation. Additional paid-in-capital represents additional monies paid into the corporation by investors above the par value of shares issued. Retained earnings represents income (loss) that the corporation has accumulated as a result of its day-to-day operating activities. Our stockholders' equity at the end of 2003 was $10,963,558 Failure to meet these maintenance criteria may result in the delisting of our common stock from the Nasdaq SmallCap Market. If our common stock were delisted, in order to have our common stock relisted on the SmallCap Market we would be required to meet the criteria for initial listing, which are more stringent than the maintenance criteria. Accordingly, we cannot assure you that if we were delisted we would be able to have our common stock relisted on the Nasdaq SmallCap Market. If our common stock were delisted from the Nasdaq SmallCap Market, we would not be able to draw down any additional funds on our existing equity line, and we also may be required to pay damages to holders of our common stock under agreements we previously entered into with them in connection with equity financings. Finally, if our common stock were removed from listing on the Nasdaq SmallCap Market, it might become more difficult for us to raise funds through the sale of our common stock or securities convertible into our common stock.