STEMCELLS INC
Form 10-K/A
April 06, 2004

Table of Contents

**SECURITIES AND EXCHANGE COMMISSION**

**WASHINGTON, D.C. 20549**

**FORM 10-K/A**

**/X/ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
**FOR THE FISCAL YEAR ENDED DECEMBER 31, 2001**
OR
**/ / 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

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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 /X/ No / /

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. /X/

Aggregate market value of Common Stock held by non-affiliates at February 25, 2002: $66,606,700. 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 February 25, 2002: 24,220,618 shares

**TABLE OF CONTENTS**

Table of Contents

## DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant s definitive Proxy Statement relating to the registrant s 2002 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.

This amendment on Form 10-K/A amends the Annual Report of the Company on Form 10-K previously filed for the year ended December 31, 2001. This Annual Report on Form 10-K/A is filed in connection with the Company s restatement of its consolidated financial statements for the year ended December 31, 2001. The Company has determined that it needs 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(B) - Other Costs to Exit an Activity. EITF issue 94-3(B) requires that, instead of expensing costs as incurred, the Company accrue what it can reasonably estimate as its carrying cost to an estimated fully leased or disposal date. Accordingly, in its restated financial statements for the year ended December 31, 2001, based on information estimated as of that date, the Company accrued an estimated $575,000 as wind-down expenses. (See footnote 1 and footnote 2 to the consolidated financial statements.)

## ITEM 1. BUSINESS

### OVERVIEW

We are engaged in research aimed at the development of therapies that would use stem and progenitor cells derived from fetal or adult sources to treat, and possibly cure, human diseases and injuries such as Parkinson s disease, hepatitis, diabetes, and spinal cord injuries. 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

Table of Contents

produce one or more types of mature cells within an organ. We are not developing embryonic stem cells for therapeutic use.

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, based on information available to us from the Alzheimer s Association, the National Institutes of Health, the Centers for Disease Control and Prevention, and the Parkinson s Action Network, that these conditions affect more than 20 million people in the United States and account for more than $190 billion annually in health care costs.

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. We have made significant progress toward developing stem cell therapies for the nervous system by identifying and characterizing the human central nervous system stem cell. We have also made significant advances in our search for the stem cells of the liver and the pancreas by identifying markers, some of which are novel, on the surface of cells so they can be isolated and tested to determine whether they are stem cells. 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 intend to concentrate our in-house efforts on our neural and liver programs and, for the present, to pursue work on the pancreas primarily through external collaborators.

## 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. 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.

Table of Contents

## THE POTENTIAL OF OUR 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 cells;

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 markers on the cell surface that identify the human CNS stem cells. This allows us to purify them and eliminate other unwanted cell types. We have also developed a process, based on a proprietary IN VITRO culture system in chemically defined media, and demonstrated that this process reproducibly grows normal human central nervous system, or 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 enable therapies to replace specific cells that have been damaged or destroyed, permitting the restoration of function through the replacement of normal cells where this has not been possible in the past. In our research, we have shown that stem cells of the central nervous system transplanted into hosts are accepted, migrate, and successfully specialize to produce mature neurons and glial cells.

More generally, because the 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,

Table of Contents

- drug discovery and screening,

- gene discovery and use, and

- diagnostics.

We intend to aggressively pursue a series of non-exclusive agreements whereby third parties would have access to our cells for use in diagnostics, gene discovery and use, drug discovery and screening, and correction of genetic disorders, while in connection with tissue repair and replacement, we intend to enter into exclusive agreements with larger entities for the development of the technology and use of the cells in transplantation on a disease-specific basis.

**OUR PLATFORM OF STEM CELL TECHNOLOGIES**

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 a more or less limited 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 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 medium, and our published studies show that these cultured and expanded cells give rise to all three major cell types of the central nervous system. Also, a separate study sponsored by us using these cultured stem and progenitor cells showed that the cells are accepted, migrate, and successfully specialize to produce neurons and glial cells.

We have published the results of a study that showed 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

Table of Contents

human central nervous system stem cells, and have applied for a composition of matter patent. 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 have also filed an improved process patent for the growth and expansion of these purified normal human central nervous system cells.

More recently, we announced the results of a new study 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.

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 diseases of this kind.

We continue to advance our research programs to discover the liver stem cell and, through our outside collaborators, the islet stem cell in the human pancreas. 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**

**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.

Table of Contents

## REPLACED CELLS PROVIDE NORMAL FUNCTION

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.

## RESEARCH EFFORTS AND PRODUCT DEVELOPMENT PROGRAMS

## OVERVIEW OF RESEARCH AND PRODUCT DEVELOPMENT 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* | *Preclinical* |
| Repair or replace damaged central nervous system tissue (including spinal cord, stroke-damaged tissue, and tissue affected by certain genetic disorders) | 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<br><br>Demonstrated the ability to isolate neurosphere-initiating stem cells from human brain<br><br>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<br><br>Commenced preclinical testing of human neural stem cells in well-characterized small animal models of human diseases |

7

Table of Contents

| Program Description and Objective | Stage/Status(1) |
|---|---|
| *Liver Stem Cell* | *Research* |
| Repair or replace liver tissue damaged or destroyed by cirrhosis and certain metabolic genetic diseases | Demonstrated the production of hepatocytes from purified mouse hematopoietic stem cells<br><br>Identified *in vitro* culture assay for growth of human liver progenitor cells that express markers for both bile duct cells and hepatocytes<br><br>Showed that the *in vitro* culture of human liver progenitor cells can also grow human hepatitis virus<br><br>Demonstrated the engraftment and survival of human liver cells in an *in vivo* mouse model |
| *Pancreas Islet Stem Cell* | *Research* |
| Repair or replace damaged pancreas islet tissue | Identified markers on the surface of a rare population of human pancreatic cells<br><br>Commenced testing enriched population of those cells in in vitro and *in vivo* small animal model<br><br>Established consortium of external collaborators |

(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.

**RESEARCH AND DEVELOPMENT PROGRAMS**

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 Irving L. Weissman, M.D., of Stanford University, Fred H. Gage, Ph.D., of The Salk Institute, David Anderson, Ph.D., of the California Institute of Technology and Ben Barres, Ph.D., of Stanford University, as well as other occasional consultants including William C. Mobley, M.D., Ph.D. and Seung Kim, M.D., Ph.D., both of Stanford University.

**BRAIN STEM AND PROGENITOR CELL RESEARCH AND DEVELOPMENT 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 License Agreements and Sponsored Research

Agreements NeuroSpheres, Ltd.

**Table of Contents**

In 1997, our scientists invented a reproducible method for growing human CNS stem and progenitor cells in cultures. In preclinical IN VITRO 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 VITRO in chemically defined media. In collaboration with us, Dr. Anders Bjorklund of Lund University, Sweden, showed 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.

Since then, we have expanded our preclinical efforts in this area by initiating programs aimed at the discovery and use of specific monoclonal antibodies to facilitate identification and isolation of CNS and other stem and progenitor cells or their specialized progeny. Our researchers have devised methods to advance the IN VITRO culture and passage of human CNS stem cells that resulted in a 100-fold increase in CNS stem and progenitor cell production after 6 passages. A U.S. patent on those methods issued in May, 2001 (patent No. 6238922, Use of collagenase in the preparation of neural stem cell cultures ). We are expanding our preclinical efforts toward the goal of selecting the proper indications to pursue.

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. US 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 US Patent No. 6,103,530, covering our media for culturing human CNS stem cells, was granted in 2000.

We have a US patent application pending that covers our proprietary process for the direct isolation of normal human CNS stem cells based on the markers found to be present on the surface of freshly obtained brain cells. Since the filing of this patent application, our researchers have completed a study designed to identify, isolate and culture human CNS stem cells utilizing this proprietary process. Using our proprietary markers on the surface of the cell, our researchers have succeeded in identifying, isolating and purifying human CNS stem cells from brain tissue, and were able to expand the number of these cells in culture.

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.

Table of Contents

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.

In 2001, we assembled and evaluated our long-term transplantation data, defined in-house disease targets for further evaluation for proof of principle, and established external collaborations with a number of academic laboratories to pursue other well-characterized disease models in small animals.

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 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 Gaucher 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 STEM CELLS DISCOVERY RESEARCH PROGRAMS**

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, and a worldwide 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

Table of Contents

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.

Our researchers have devised a culture assay that we will use in our efforts to identify liver stem and progenitor cells. In addition to supporting the growth of an early human liver bipotent progenitor cell, it is also possible to infect this culture with human hepatitis virus, providing a valuable system for study of the virus. This technology could also provide a unique IN VITRO model for the testing of drugs that act on, or are metabolized by, human liver cells.

There have been reports in the scientific community that bone marrow transplant patients show evidence of donor derived liver cells (hepatocytes). Our scientists (in conjunction with Markus Grompe, OHSU) showed that bone marrow derived hepatocytes are functional and can rescue mice in liver failure. Moreover, the only cells within the mouse bone marrow that are able to produce hepatocytes are highly purified hematopoietic stem cells that is, stem cells of the blood and immune system, often referred to as HSCs. We believe that these studies in stem cell plasticity are the most rigorous studies performed to date and show the possibility of transitioning from one cell type to another.

In parallel with the studies performed using mouse HSCs, our scientist have performed IN VITRO studies on human liver cells. To date, they have identified proprietary monoclonal antibodies that enrich for distinct subsets of fetal and/or pediatric liver cells. These cells are currently being tested in our IN VITRO and IN VIVO culture assays. Further analysis and enrichments are in progress.

**PANCREAS STEM CELLS DISCOVERY RESEARCH PROGRAMS**

Our pancreas discovery research program is directed to the identification, isolation and culturing of the pancreas stem and progenitor cells. We obtained 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. US 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 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. 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, for which we have now filed a US patent application. We have no current plans for further research collaborations with Scripps or Dr. Sarvetnick.

In 2001, we established a consortium of academic investigators to work in collaboration with us on the human pancreatic stem and progenitor cells. This consortium includes Drs. Raphael Scharfmann and Bruno Peault of INSERM, in Paris, France, and Dr. Seung Kim of Stanford University. Through this consortium we have access to unique animal models for transplantation of candidate stem/progenitor cells. We have identified key monoclonal antibodies that identify a rare subset of pancreatic cells that may be candidate stem cells. For the present, we will be pursuing the program primarily through the external members of the consortium.

Table of Contents

## WIND-DOWN OF ENCAPSULATED CELL THERAPY RESEARCH AND DEVELOPMENT PROGRAMS

Until mid-1999, our company, which was then known as CytoTherapeutics, engaged in research and development in encapsulated cell therapy technology, or ECT. In July 1999, we began the restructuring of our research operations to abandon all further ECT research and to concentrate our resources on the research and development of our proprietary platform of stem cell technology. We sold our intellectual property assets related to the ECT, retaining certain non-exclusive rights to use the ECT in combination with our proprietary stem cell technology and in the field of vaccines for prevention and treatment of infectious diseases, and a portion of certain revenues the buyer, Neurotech S.A., might receive in the future. (Subsequently, we sold the retained rights to such revenues to Modex Therapeutics, S.A.; see Note 5 to the Financial Statements below.) We relocated to California, and have subleased the two buildings that constituted our pilot manufacturing and cell processing facility in Rhode Island and approximately one-third of our former corporate headquarters building. We are actively seeking to sublease, assign or sell our remaining interests in the Rhode Island real estate.

## 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. Simultaneously with the acquisition, its President, Richard M. Rose, M.D., became our President, Chief Executive Officer and a director, and Irving L. Weissman, M.D., a founder of StemCells California, became a member of our board of directors.

## CORPORATE COLLABORATIONS

## CORPORATE INVESTMENT

In July 1996, we, together with certain founding scientists, established Modex Therapeutics SA (Modex), a Swiss biotherapeutics company, to pursue extensions of our former technology of ECT for certain applications outside the central nervous system. Modex, headquartered in Lausanne, Switzerland, was formed to integrate technologies developed by us and by several other institutions to develop products to treat diseases such as diabetes, obesity and anemia. After our disposition of the encapsulated cell technology in December 1999, we no longer had common research or development interests with Modex, but we held approximate 17% of its stock. Modex completed an initial public offering on June 23, 2000, in the course of which we realized a gain of approximately $1.4 million from the sale of certain shares. By the end of May 2001 we had sold all our shares in Modex for a realized gain of approximately $7.8 million.

## LICENSE AGREEMENTS AND SPONSORED RESEARCH AGREEMENTS

### SPONSORED RESEARCH AGREEMENTS

Table of Contents

Under Sponsored Research Agreements with The Scripps Research Institute and Oregon Health Sciences University, we funded certain research in return for licenses or options to license the inventions resulting from the research. We have also entered into license agreements with the California Institute of Technology. All of these agreements 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.

Our research agreement with Scripps expired at the end of 2000, and we do not intend to renew it at this time. It is our intention to pursue research on human stem and progenitor cells of the pancreas primarily through the consortium we have established with other academic researchers. Our license agreements with Scripps are not affected by the expiration of the research agreement. They will terminate upon expiration, revocation or invalidation of the patents licensed to us, unless governmental regulations require a shorter term. These license agreements 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. Upon the initiation of the Phase II trial for our first product using Scripps licensed technology, we must pay Scripps $50,000 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. Our license agreements with the California Institute of Technology (Cal Tech) will expire upon expiration, revocation, invalidation or abandonment of the patents licensed to us. We can terminate any of these license agreements by giving 30 days notice to Cal Tech. Either party can terminate these license agreements upon a material breach by the other party. 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. We also will pay $5,000 on the 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.

We and our wholly-owned subsidiary, StemCells California have entered into sponsored research and license agreements with the Oregon Health Sciences University (OHSU) beginning in March 1997. Pursuant to the terms of the license agreement 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 by passage of time and the others will vest, if at all, on the achievement of specified milestones.

**LICENSE AGREEMENTS**

We have entered into a number of license agreements with commercial and non-profit institutions, as well as a number of research-plus-license agreements with academic organizations. The research agreements provide that we will fund certain research costs, and in return, will have a license or an option for a license to the resulting inventions. Under the license agreements, we will typically be subject to obligations of due diligence and the requirement to pay royalties on products that use patented technology licensed under such agreements.

Table of Contents

**SIGNAL PHARMACEUTICALS, INC.**

In December 1997, we entered into two license agreements with Signal Pharmaceuticals, Inc. under which each party licensed to the other certain patent rights and biological materials for use in defined fields. An initial disagreement as to the interpretation of the licensed rights was resolved by the parties, and the agreements are operating in accordance with their terms. 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 would total $500,000 for each product that is approved for market. 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 would have a security interest in the licensed technology in the event that NeuroSpheres declares bankruptcy.

**MANUFACTURING**

Because of the early stage of our stem and progenitor cell programs, we have made no decisions about the means by which potential future cell products will be manufactured, nor resolved the many issues that will affect our choices. We believe that our new facility in Palo Alto, however, 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.

**MARKETING**

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

Table of Contents

**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 mainly to compositions of matter, methods of obtaining such cells, and methods for preparing, transplanting and utilizing such cells. Currently, our U.S. patent portfolio in the stem cell therapy area includes thirty issued U.S. patents, five of which issued in 2001. An additional twenty-five patent applications are pending, two of which have been allowed.

We own, or have filed, the following United States Patents and patent applications: U.S. Patent Number 5,968,829 (Human CNS neural stem cells); U.S. Patent Number 6,103,530 (Human CNS neural stem cells culture media); Application Number WO 99/11758 (Cultures of human CNS neural stem cells); U.S. Patent Number 6,238,922 (Use of collagenase in the preparation of neural stem cell cultures); U.S. Patent Application Number WO 00/50572 (Use of collagenase in the preparation of neural stem cell cultures); Application Number WO 00/47762 (Enriched neural stem cell populations and methods of identifying, isolating, and enriching neural stem cells); Application Number WO 00/52143 (Isolation and enrichment of neural stem cells from uncultured tissue based on cell-surface marker expression); and Application Number WO 01/28574 (Method for inducing IN VIVO proliferation and migration of transplanted progenitor cells in the brain).

We have licensed the following United States Patents or pending patent applications from NeuroSpheres Holdings Ltd.: U.S. Patent Number 5,851,832 (IN VITRO proliferation); U.S. Patent Number 5,750,376 (IN VITRO genetic modification); U.S. Patent Number 5,981,165 (IN VITRO production of dopaminergic cells from mammalian central nervous system multipotent stem cell compositions); U.S. Patent Number 6,093,531 (Generation of hematopoietic cells from multipotent neural stem cells); U.S. Patent Number 5,980,885 (Methods for inducing IN VIVO proliferation of precursor cells); U.S. Patent Number 6,071,889 (Methods for IN VIVO transfer of a nucleic acid sequence to proliferating neural cells); U.S. Patent Number 6,294,346 (Methods for screening biological agents); U.S. Patent Number 6,165,783 (Methods of inducing differentiation of multipotent neural stem cells); Application Number WO 93/01275 (Mammalian central nervous system multipotent stem cell compositions); Application Number WO 94/09119 (Remyelination using mammalian central nervous system multipotent stem cell compositions); Application Number WO 94/10292 (Biological factors useful in differentiating mammalian central nervous system multipotent stem cell compositions); Application Number WO 94/16718 (Genetically engineered mammalian central nervous system multipotent stem cell compositions); Application Number WO 96/15224 (Differentiation of mammalian central nervous system multipotent stem cell compositions); Application Number WO 99/2196 (Erythropoietin-mediated neurogenesis); Application Number WO 99/16863 (Generation of hematopoietic cells); Application Number WO 98/22127 (Pretreatment with growth factors to protect against CNS damage); Application Number WO 97/3560 (IN SITU manipulation of cells of the hippocampus); Application Number WO

Table of Contents

96/09543 (IN VITRO models of CNS functions and dysfunctions); Application Number WO 95/13364 (IN SITU modification and manipulation of stem cells of the CNS); Application Number WO 96/15226 (IN VITRO production of dopaminergic cells from mammalian central nervous system multipotent stem cell composition); and Application Number WO 96/15266 (Regulation of neural stem cell proliferation).

We have licensed the following United States Patents or pending patent applications from the University of California, San Diego: U.S. Patent Number 5,776,948 (Method of production of neuroblasts); U.S. Patent Number 6,265,175 (Method of production of neuroblasts); U.S. Patent Number 6,013,521 (Method of production of neuroblasts); U.S. Patent Number 6,020,197 (Method of production of neuroblasts); U.S. Patent Number 6,045,807 (Method of production of neuroblasts); and Application Number WO 94/16059 (Method of production of neuroblasts).

We have licensed the following United States Patents or pending patent applications from the California Institute of Technology: U.S. Patent Number 5,629,159 (Immortalization and disimmortalization of cells); Application Number WO 96/40877 (Immortalization and disimmortalization of cells); U.S. Patent Number 6,270,990 (Neuron restrictive silencer factor proteins); U.S. Patent Number 5,935,811 (Neuron restrictive silencer factor proteins); Application Number WO 96/27665 (Neuron restrictive silencer factor proteins); U.S. Patent Number 5,589,376 (Mammalian neural crest stem cells); U.S. Patent Number 5,824,489 (Methods for isolating mammalian multipotent neural crest stem cells); Application Number WO 94/02593 (Mammalian neural crest stem cells); U.S. Patent Number 5,654,183 (Genetically engineered mammalian neural crest stem cells); U.S. Patent Number 5,928,947 (Mammalian multipotent neural crest stem cells); U.S. Patent Number 5,693,482 (IN VITRO neural crest stem cell assay); U.S. Patent Number 6,001,654 (Methods for differentiating neural stem cells to neurons or smooth muscle cells (TGFb)); Application Number WO 98/48001 (Methods for differentiating neural stem cells to neurons or smooth muscle cells (TGFb)); U.S. Patent Number 5,672,499 (Methods for immortalizing multipotent neural crest stem cells); U.S. Patent Number 5,849,553 (Immortalizing and disimmortalizing multipotent neural crest stem cells); and U.S. Patent Number 6,033,906 (Differentiating mammalian neural stem cells to glial cells using neuregulins).

We have licensed the following United States Patents or pending patent applications from the following other institutions: Number 6,242,666 (An animal model for identifying a common stem/ progenitor to liver cells and pancreatic cells) and Application Number WO 00/36091 (An animal model for identifying a common stem/progenitor to liver cells and pancreatic cells), licensed from The Scripps Research Institute; Application Number WO98/50526 (Generation, characterization, and isolation of neuroepithelial stem cells and lineage restricted intermediate precursor), licensed from the University of Utah; and Number 6,132,708 (Liver regeneration using pancreas cells), licensed from Oregon Health Sciences University.

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

Table of Contents

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.

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 filing), and since publication of discoveries in the scientific or patent literature often lags behind actual discoveries, we cannot be certain that we were the first to make the inventions covered by each of our pending patent applications or that we were the first to file patent applications for such inventions. There can be no assurance that patents will issue from our pending or future patent applications or, if issued, that such patents will be of commercial benefit to us, afford us adequate protection from competing products, or not be challenged or declared invalid.

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

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

Table of Contents

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.

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, applications and know-how regarding neural, liver and pancreatic 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.

**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 our stem and progenitor cell products 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. 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.

Table of Contents

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 |

Table of Contents

| Steps | Considerations |
|---|---|
| 3. Adequate and well-controlled human clinical trials to establish the safety and efficacy of the product | delay or objections from the FDA. 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.<br><br>Clinical development is traditionally conducted in three sequential phases, which may overlap:<br><br>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.<br><br>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. |

Table of Contents

| Steps | Considerations |
|---|---|
| | 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 may review 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.

Table of Contents

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

Table of Contents

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, 2001, we had thirty-three full-time employees, of whom nine have Ph.D. degrees. Twenty-two full-time employees work in research and development and laboratory support services. A number of our employees have held positions with other biotechnology or pharmaceutical companies or have worked in university research programs. 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. Dr. Weissman was a cofounder of SyStemix, Inc., and Chairman of its Scientific Advisory Board. He has served on the Scientific Advisory Boards of Amgen Inc., DNAX and T-Cell Sciences, Inc. Dr. Weissman is Chairman of the Scientific Advisory Board of StemCells.

- David J. Anderson, Ph.D., is Professor of Biology, California Institute of Technology, Pasadena, California and Investigator, Howard Hughes Medical Institute.

Table of Contents

- 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.

- Ben A. Barres, Ph.D., is Associate Professor of Neurobiology and of Developmental Biology, Stanford University, Stanford California.

## 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 new 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 with Stanford University and with Celtrans, Inc.

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 65,000 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. In 2001 we subleased the 3,000 square foot facility and effective in 2002 we have subleased the 21,000 square-foot facility. We have also subleased approximately one-third of the 65,000 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 National Market System of NASDAQ under the Symbol STEM (Previously traded under the Symbol CTII until May 2000). The quarterly ranges of high and low bid prices for the last two fiscal years as reported by NASDAQ are shown below:

Table of Contents

| 2001 | High | Low |
|---|---|---|
| First Quarter | $3.56 | $1.75 |
| Second Quarter | $5.41 | $1.56 |
| Third Quarter | $7.00 | $1.94 |
| Fourth Quarter | $4.15 | $2.07 |

| 2000 | High | Low |
|---|---|---|
| First Quarter | $20.00 | $1.38 |
| Second Quarter | $ 8.06 | $2.00 |
| Third Quarter | $11.67 | $3.53 |
| Fourth Quarter | $ 6.75 | $2.25 |

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

As of February 25th, 2001, there were approximately 362 holders of record of the common stock.

On December 4, 2001, we issued 5,000 shares of 3% Cumulative Convertible Preferred Stock to Riverview Group, L.L.C., a wholly owned subsidiary of Millennium Partners, L.P. This preferred stock is convertible into shares of our common stock at a conversion price of $2.00 per share of common stock; there is a mandatory redemption provision under which any preferred stock outstanding on December 4, 2003, shall be redeemed on that date. The conversion price may be below the trading market price of the stock at the time of conversion. Also on December 4, 2001, 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. The warrant expires on December 4, 2005. Riverview Group paid $5,000,000 for the preferred stock and warrant. We also issued to Cantor Fitzgerald & Co., our financial advisor in connection with the transaction, a warrant for 146,199 shares exercisable at $3.42 per share. These transactions were exempt from registration under the Securities Act of 1933 pursuant to Regulation D thereunder.

## 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 2001 and 2000 and for each of

the three years in the period ended December 31, 2001 are derived from audited financial statements included elsewhere in this Form 10-K/A.

| | Year ended December 31, | | | | |
|---|---|---|---|---|---|
| | 2001 | 2000 | 1999 | 1998 | 1997 |
| | | RESTATED (4) | | | |
| | | (in thousands, except per share amounts) | | | |
| Consolidated Statement of Operations | | | | | |
| Revenue from collaborative and licensing agreements (1) | $ | $ 74 | $ 5,022 | $ 8,803 | $10,617 |

| | |
|---|---|
| Revenue from grants | 505 |
| Revenue from assignment of rights to technology | 300 |

Table of Contents

| | Year ended December 31, | | | | |
|---|---|---|---|---|---|
| | 2001 | 2000 | 1999 | 1998 | 1997 |
| | RESTATED (4) | | | | |
| | (in thousands, except per share amounts) | | | | |
| Total revenue | 805 | 74 | 5,022 | 8,803 | 10,617 |
| Research and development expenses | 8,603 | 5,979 | 9,984 | 17,659 | 18,604 |
| Acquired research and development | | | | | 8,344 |
| Encapsulated Cell Technology wind-down and corporate relocation (2) | 575 | 3,327 | 6,048 | | |
| Net loss before cumulative effect of change in accounting principle | (4,021) | (11,125) | (15,709) | (12,628) | (18,114) |
| Basic and diluted net loss per share available to common shareholders before cumulative effect of an accounting change. | $ (0.25) | $ (0.57) | $ (0.84) | $ (0.69) | $ (1.08) |
| Cumulative effect of a change in accounting principle | | $ (0.01) | | | |
| Net loss per share applicable to common shareholders | $ (0.25) | $ (0.58) | $ (0.84) | $ (0.69) | $ (1.08) |
| Shares used in computing basic and diluted net loss per share | 22,242 | 20,068 | 18,708 | 18,291 | 16,704 |

| | December 31, | | | | |
|---|---|---|---|---|---|
| | 2001 | 2000 | 1999 | 1998 | 1997 |
| | RESTATED (4) | | | | |
| | | | (in thousands) | | |
| Consolidated Balance Sheet | | | | | |
| Cash and cash equivalents | $ 13,697 | $ 6,069 | $ 4,760 | $17,386 | $29,050 |
| Restricted investments | | 16,356 | | | |
| Total assets | 20,803 | 29,795 | 15,781 | 32,866 | 44,301 |
| Long-term debt, including capital leases | 2,316 | 2,605 | 2,937 | 3,762 | 4,108 |
| Redeemable common stock | | | 5,249 | 5,249 | 5,583 |
| Redeemable preferred stock(3) | 2,663 | 1,283 | 5,249 | 5,249 | 5,583 |
| Stockholders equity | 12,633 | 21,699 | 3,506 | 17,897 | 28,900 |

(1) See footnote 3 in the consolidated financial statements

(2) See footnote 2 in the consolidated financial statements

(3) See footnote 11 in the consolidated financial statements

(4) 2001 amounts have been restated for the revision to the accrual of wind-down expenses, see footnote 1 and footnote 2 in the consolidated financial statements

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

Table of Contents

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 protect 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. As a result of a restructuring in the second half of 1999, our sole focus is now on our stem cell technology.

We have not derived any revenues from the sale of any products, 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 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 agreements: 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; and in December, we issued 3% convertible preferred stock for $5,000,000 gross. In addition, under the terms of the financing agreement we entered into in 2000 with Millennium Partners, LP, Millennium exercised its final option to purchase $2,000,000 of our common stock; that agreement has now terminated. (See Liquidity and Capital Resources below for further detail on each of these transactions.)

In addition, we received two grants from the National Institutes of Health, one for work on hepatitis to be carried out jointly by us and Stanford University, and one focusing on the effort to identify liver stem

Table of Contents

and progenitor cells for the treatment of liver diseases. Although the grants are relatively small ($300,000 a year for two years and $225,000 a year for four years, respectively, and dependent on availability of funds and satisfactory progress), we are very pleased by this recognition of our work by the agency.

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 move to a larger 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.

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, 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.

**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.

For certain stock options granted to non-employees, the Company accounts for these grants in accordance with FAS No. 123 accounting for stock-based compensation and 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**

Table of Contents

**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.

**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.

**RESULTS OF OPERATIONS**

**YEARS ENDED DECEMBER 31, 2001, 2000 AND 1999**

**RESTATED (See footnote 1 and footnote 2 to consolidated financial statements)**

Revenues totaled $805,000, $74,000 and $5,022,000 for the years ending December 31, 2001, 2000 and 1999, respectively. Revenues for 2001 are from 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 ($505,000) and 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.($300,000). Revenues for 2000 were from Neurotech, SA. in return for that sale of our ECT intellectual property assets described above under Research and Development Programs above. Revenues for 1999 were from collaborative agreements, earned primarily from a Development, Marketing and License Agreement with AstraZeneca Group plc, which was signed in March 1995 and which related to the ECT. The decrease in revenues from 1999 to 2000 resulted primarily from the June 1999 termination of the agreement with AstraZeneca. The increase from 2000 to 2001 was primarily due to the receipt of money from grants. There were no receipts from grants in 2000.

Research and development expenses totaled $8,603,000 in 2001, as compared to $5,979,000 in 2000 and $9,984,000 in 1999. The increase of $2,624,000, or 44%, from 2000 to 2001 was primarily attributable to the costs related to leasing a larger facility and an increase in personnel to facilitate the expansion of our research and initiate development. Our program in neural stem and progenitor cells has entered 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. In our liver stem cell program, we are intensifying our efforts to identify liver stem and progenitor cells. In part, we will do this by following up studies we have done showing that purified blood stem cells can give rise to liver tissue, to seek a possible transitional cell transitional between the blood stem cells and the mature liver cells. Our pancreas program is concentrated on the use of animal models, available through a consortium of academic collaborators, to attempt to identify and test candidate stem cells for use in the treatment of diseases such as certain types of diabetes, and is being carried on for the present primarily through those collaborators. The decrease of $4,005,000 or 40%, from 1999 to 2000, was primarily attributable to the

Table of Contents

wind-down of research activities relating to our ECT, precipitated by termination of the agreement with AstraZeneca.

General and administrative expenses were $3,788,000 in 2001, compared with $3,361,000 in 2000 and $4,927,000 in 1999. The increase of $427,000 or 13%, from 2000 to 2001 was primarily attributable to the related costs of an increase in personnel, which included the hiring of senior management personnel as part of the reorganization and consolidation of our operations in California, and the costs related to leasing a larger facility. The decrease of $1,566,000 or 32% from 1999 to 2000 was due to the wind-down of our ECT and relocation of our headquarters in October 1999 from Rhode Island to California.

Wind-down expenses related to our ECT research, our Rhode Island operations and the transfer of our headquarters to California totaled $575,000, $3,327,000 and $6,048,000 for 2001, 2000 and 1999, respectively. 1999 expenses included accruals of approximately $1.6 million for employee severance costs, $1.9 million in losses and reserves for the write-down of related patents and fixed assets, $1.2 million for our costs of settlement of a 1989 funding agreement with the Rhode Island Industrial Recreational Building Authority, $700,000 of estimated additional carrying costs through June 30, 2000, and other related expenses totaling $760,000.

During 2000, we incurred approximately $290,000 of costs in excess of the amounts accrued as of December 31, 1999 for the carrying costs, including lease payments, property taxes and utilities, through the expected June 30, 2000 disposition of the Rhode Island facilities. During the third and fourth quarters of 2000 we incurred additional $1.3 million in carrying costs for the Rhode Island facilities, as we were unable to dispose of them as expected. We created a reserve of $1,780,000 related to the carrying costs for the Rhode Island facilities through 2001. In the year 2001 we utilized all of the reserve and subsequently, as of the end of 2001, revised our estimates by establishing an additional reserve of $575,000 related to the rent and operating expenses net of subtenant rent income for our former corporate headquarters in Rhode Island. This estimate was based in part on the information provided by our broker/realtor in Rhode Island as to the projected amount of time it would take until the facility would be fully occupied. We have subleased substantial portions of the facilities and are actively seeking to sublease, assign or sell our remaining interests in the properties. However, there can be no assurance that we will be able to dispose of these facilities in a reasonable time, if at all. As we cannot predict the exact fully leased or disposal date of these properties, we will continue to evaluate and record all future estimated expenses based on periodic estimates of the date at which the facility would be fully leased or disposed of.

Interest income for the years ended December 31, 2001, 2000 and 1999 totaled $201,000, $304,000 and $564,000, respectively. The average cash and cash equivalents were $9,034,000, $5,668,000 and $10,663,000 in 2001, 2000 and 1999, respectively. The decrease in interest income from 2000 to 2001 was attributable to the lower interest rate on overnight and money market funds. The decrease in interest income from 1999 to 2000 to 2001 was attributable to lower average balances.

In 2001, interest expense was $246,000, compared to $273,000 in 2000 and $335,000 in 1999. 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 1999 to 2000 to 2001 was attributable to lower outstanding debt and capital lease balances.

Table of Contents

Gain on sale of short-term investments relates to the sale of 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 $2,550,230. 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. We no longer hold any shares of Modex.

The net loss in 2001, 2000 and 1999 was $4,021,000, $11,125,000, and $15,709,000, respectively. The loss per share applicable to common shareholders was $0.25, $0.57 and $0.84 in 2001, 2000 and 1999, respectively. The decrease from 2000 to 2001 is primarily attributable to a realized gain of $7,782,000 from our sale of Modex shares in 2001, offset by an increase in operating expenses attributable to an increase in personnel and our move to a larger facility. The decrease from 1999 to 2000 was primarily attributable to the wind-down of our encapsulated cell technology research and our Rhode Island operations and offset by the elimination of revenue from the Astra Agreement.

**DEEMED DIVIDENDS RELATED TO CONVERTIBLE PREFERRED STOCK.**

In 2001, we recorded a deemed dividend of $743,667 related to the 3% Cumulative Convertible Preferred Stock (see note 11 to the 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 financial statements). The dividend reflects the value of warrants issued and the beneficial conversion feature. In November 2000, the FASB issued Emerging Issues Task Force Issue No. 00-27, Application of EITF Issue No. 98-5, Accounting for Convertible Securities with Beneficial Conversion Features or Contingently Adjustable Conversion Ratios, to Certain Convertible Instruments ( EITF 00-27 ). Prior to the adoption of EITF 00-27, we recognized $265,000 of deemed dividends on preferred stock. Upon adoption of the new accounting principle, we have presented an additional deemed dividend of $216,000 as a cumulative effect of a change in accounting principle as allowed for in EITF 00-27.

In 2001, we recorded additional deemed dividends 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.

**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 $13,697,000 at December 31, 2001. Cash equivalents are invested in US Treasuries with maturities of less than 90 days. We used $10.5 million, $6.3 million, and

Table of Contents

$11.9 million of cash, in 2001, 2000 and 1999 respectively, in our operating activities. The increase in cash used in 2001 is the result of increased research and development spending in 2001 over 2000.

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 April 13, 2000, we sold 1,500 shares of our 6% cumulative convertible preferred stock plus warrants for a total of 75,000 shares of our common stock to two members of our Board of Directors for $1,500,000, on terms more favorable to us than we were able to obtain from outside investors. The face value of the shares of preferred stock is convertible at the option of the holders into common stock at an initial conversion price of $3.77 per share. The conversion price is subject to adjustment upon certain equity transactions, as defined in the applicable agreement. The holders of the preferred stock have liquidation rights equal to their original investments plus accrued but unpaid dividends. Any unconverted preferred stock will be converted, at the applicable conversion price, on April 13, 2002. The warrants expire on April 13, 2005. The preferred stock is redeemable in the event of liquidation or change of control of the Company. A purchaser could acquire a majority of the voting power of the outstanding stock, without Company approval, thereby triggering a redemption. Accordingly, the Company has reclassified the 6% cumulative convertible preferred stock out of permanent equity for all periods presented, in accordance with the transition guidance of EITF D-98.

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 Aug 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, 622,469, and 25,804 shares on March 30, 2001, July 26, 2001 and August 15, 2001 respectively at $0.01 per share. On December 4, 2001, 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.

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. We, at our sole discretion, may draw down on this facility, sometimes termed an equity line, from time to time, and Sativum is obligated to purchase shares of our common

Table of Contents

stock at a 6% discount to a volume weighted average market price over the 20 trading days following the draw-down notice. We are limited with respect to how often we can exercise a draw down and the amount of each draw down. We delivered a draw down notice to Sativum Investments Limited, dated as of July 11, 2001, exercising our right to draw down up to $5,000,000 at a market-based share price not less than $5.00 per share beginning July 12, 2001. Sativum purchased a total of 707,947 shares of our common stock at an average purchase price of $5.65 per share, net of Sativum s discount of six percent. Because the market based price of our common stock was less than $5.00 for 4 trading days during the draw down period, pursuant to the terms of our with Sativum agreement, our $5,000,000 request was reduced to $4,000,000. Our placement agents, Pacific Crest Securities, Inc. and Granite

Financial Group, Inc., received $80,000 and $40,000, respectively, as placement fees in connection with this draw down, resulting in net proceeds to us of $3,603,407, after paying escrow fees and other associated costs. In connection with our execution of the common stock purchase agreement with Sativum, we issued three 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), Pacific Crest Securities Inc. (75,000 shares) and Granite Financial Group, Inc. (25,000 shares). Our placement agents have exercised their warrants in full, and we have received payment of $238,050 for the shares issued to them.

On December 4, 2001, we issued 5,000 shares of 3% Cumulative Convertible Preferred Stock to Riverview Group, L.L.C., a wholly owned subsidiary of Millennium Partners. We received total proceeds of $4,727,515 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 is a mandatory redemption provision in the preferred stock under which any preferred stock remaining on December 4, 2003, is redeemed on that date. The conversion price may be below the trading market price of the stock at the time of conversion. 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. The warrant expires on December 4, 2005. 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.

We continue to have outstanding obligations in regard to our former facilities in Lincoln, Rhode Island, including lease payments and operating costs of approximately $1,000,000 for 2002, net of subtenant income. We have subleased a portion of these facilities and 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. Our total operating lease payments for the years 2002 to 2013 amounts to $25,141,000, and our total capital lease payments for the years 2002 to 2014 amounts to $4,107,000.

We have limited liquidity and capital resources and must obtain significant additional capital resources in the future 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 and for general and administrative expenses. Our ability to obtain additional capital will be substantially dependent on our ability to obtain partnering support for our stem cell technology and, in the near term, on our ability to realize proceeds from the sale, assignment or sublease of our facilities in Rhode Island. Failure to do so will have a material effect on our liquidity and capital

Table of Contents

resources. Until our operations generate significant revenues from product sales, we must 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.

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. While our cash requirements may vary, we currently expect that our existing capital resources will be sufficient to fund our operations through December of 2002. 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. Dr. Irving Weissman, a member of our Board of Directors and Chairman of our Scientific Advisory Board, was interim Chief Executive Officer and is a member of the Board of Managers of Celtrans, 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, Celtrans or, with our approval, a subtenant of Celtrans, may use certain animal space in our facility, which we do not currently require for our own use. Celtrans pays the Company $16,122 per month under the space- sharing agreement, at the same rate per square foot as we receive from Stanford University, with which we also have an agreement for sharing the animal facility. In addition, Dr. Weissman remains a consultant to us under an agreement entered in 1997.

**RECENT ACCOUNTING PRONOUNCEMENTS**

In July 2001, the FASB issued Statement of Financial Accounting Standards No. 141, Business Combinations (Statement 141). This Statement addresses financial accounting and reporting for business combinations. Statement 141 supersedes APB Opinion No. 16, Business Combinations, and amends or supersedes a number of interpretations of that Opinion. Statement 141 requires that (1) all business combinations be accounted for by a single method the purchase method, (2) all intangible assets acquired in a business combination are to be recognized as assets apart from goodwill if they meet one of two criteria the contractual-legal criterion or the separability criterion and (3) in addition to the disclosure requirements in Opinion 16, disclosure of the primary reasons for a business combination and the allocation of the purchase price paid to the assets acquired and liabilities assumed by major balance sheet caption. When the amounts of goodwill and intangible assets acquired are significant in relation to the purchase price paid, disclosure of other information about those assets is required, such as the amount of goodwill by reportable segment and the amount of the purchase price assigned to each major intangible asset class. The provisions of Statement 141 apply to all business combinations initiated after June 30, 2001. Statement 141 also applies to all business combinations accounted for using the purchase

Table of Contents

method for which the date of acquisition is July 1, 2001, or later. The Company will adopt the provisions of Statement 141 for any business combinations that may be initiated.

In July 2001, the FASB issued Statement of Financial Accounting Standards No. 142, Goodwill and Other Intangibles ( Statement 142 ). Under Statement 142, goodwill and indefinite lived intangible assets are no longer amortized but are reviewed annually (or more frequently if impairment indicators arise) for impairment. Separable intangible assets that are not deemed to have an indefinite life will continue to be amortized over their estimated useful lives. StemCells has not recorded any goodwill or indefinite lived intangible assets prior to December 31, 2001. The adoption of this statement as of January 1, 2002 will not have a material impact on the Company s financial position, results of operations or cash flow.

In October 2001, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets ( Statement 144 ), which addresses financial accounting and reporting for the impairment or disposal of long-lived assets and supersedes Statement 121, Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed Of , and the accounting and reporting provisions of APB Opinion No. 30, Reporting the Results of Operations for a disposal of a segment of a business. Statement 144 is effective for fiscal years beginning after December 15, 2001. The Company will adopt Statement 144 as of January 1, 2002 and it does not expect that the adoption of the Statement will have a significant impact on the Company s financial position and results of operations.

## ITEM 7A. QUANTITIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We have sold all our shares of Modex Therapeutics, Ltd., referred to in our Form 10-K for the year ended December 31, 2000. We have no other financial instruments with significant market risk. Cash equivalents consist of U.S. Treasury instruments with maturities of less than 90 days.

## ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA
## STEMCELLS, INC.
## INDEX TO CONSOLIDATED FINANCIAL STATEMENTS (RESTATED)

Table of Contents

## 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, 2001 and 2000, and the related consolidated statements of operations, changes in redeemable convertible preferred stock and stockholders equity, and cash flows for each of the three years in the period ended December 31, 2001. 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, 2001 and 2000, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2001, in conformity with accounting principles generally accepted in the United States.

As discussed in Note 1, the consolidated financial statements for the year ended December 31, 2001 have been restated.

*/s/ ERNST & YOUNG LLP*

*Palo Alto, California*
*February 12, 2002, except for Note 1 - Restatement of Financial Statements, as to which the date is March 31, 2004*

Table of Contents

StemCells, Inc.

Consolidated Balance Sheets

| | December 31, 2001 RESTATED | 2000 |
|---|---|---|
| **Assets** | | |
| Current assets: | | |
| Cash and cash equivalents | **$13,697,195** | $ 6,068,947 |
| Short-term restricted investments | | 16,356,334 |
| Accrued interest receivable | **4,638** | 16,725 |
| Other receivable | **49,590** | |
| Other current assets | **361,636** | 524,509 |
| Total current assets | **14,113,059** | 22,966,515 |
| Property held for sale | **3,203,491** | 3,203,491 |
| Property, plant and equipment, net | **1,219,319** | 1,451,061 |
| Other assets, net | **2,267,207** | 2,173,912 |
| Total assets | **$20,803,076** | $29,794,979 |
| **Liabilities, redeemable convertible preferred stock, and stockholders equity** | | |
| Current liabilities: | | |
| Accounts payable | **$ 578,270** | $ 526,191 |
| Accrued expenses | **499,165** | 837,358 |
| Accrued wind-down costs | **575,000** | 1,780,579 |
| Current maturities of capital lease obligations | **289,167** | 332,083 |
| Total current liabilities | **1,941,602** | 3,476,211 |
| Capital lease obligations, less current maturities | **2,315,833** | 2,605,000 |
| Deposits | **129,897** | 26,000 |
| Deferred rent | **1,120,005** | 705,746 |
| Total liabilities | **5,507,337** | 6,812,957 |

Table of Contents

| | December 31, | |
|---|---|---|
| | **2001 RESTATED** | **2000** |
| Redeemable Convertible Preferred Stock, $0.01 par value; 1,000,000 shares authorized issuable in series: | | |
| 3% Cumulative Convertible Preferred Stock, 5,000 shares issued and 4,000 shares outstanding at December 31, 2001, none at December 31, 2000 (aggregate liquidation preference of $5,000,000 at December 31, 2001) | **1,379,682** | |
| 6% Cumulative Convertible Preferred Stock, 2,626 designated as 6%, 1,500 shares issued and outstanding at December 31, 2001 and 2000 (aggregate liquidation preference of $1,500,000 at December 31, 2001) | **1,283,250** | 1,283,250 |
| Stockholders equity: | | |
| Common stock, $.01 par value; 45,000,000 shares authorized; 24,220,021 and 20,956,887 shares issued and outstanding at December 31, 2001 and 2000, respectively | **242,200** | 209,569 |
| Additional paid-in capital | **149,180,388** | 138,366,817 |
| Accumulated deficit | **(134,519,684)** | (130,498,187) |
| Accumulated other comprehensive income | | 16,356,334 |
| Deferred compensation | **(2,270,097)** | (2,735,761) |
| Total stockholders equity | **12,632,807** | 21,698,772 |
| Total liabilities, redeemable convertible preferred stock, and stockholders equity | **$ 20,803,076** | $ 29,794,979 |

*See accompanying notes to consolidated financial statements.*

StemCells, Inc.

Consolidated Statements of Operations

| | Year ended December 31, | | |
|---|---|---|---|
| | **2001 RESTATED** | **2000** | **1999** |
| Revenue from collaborative and licensing agreements | **$** | $74,300 | $5,021,707 |

| | |
|---|---|
| Revenue from grants | **505,231** |

Table of Contents

| | Year ended December 31, | | |
|---|---|---|---|
| | **2001 RESTATED** | **2000** | **1999** |
| Revenue from assignment of rights to technology | **300,000** | | |
| Total revenues | **805,231** | 74,300 | 5,021,707 |
| Operating expenses: | | | |
| Research and development | **8,603,444** | 5,979,007 | 9,984,027 |
| General and administrative | **3,787,759** | 3,361,231 | 4,927,303 |
| Encapsulated Cell Therapy wind-down and corporate relocation | **575,000** | 3,327,360 | 6,047,806 |
| | **12,966,203** | 12,667,598 | 20,959,136 |
| Loss from operations | **(12,160,972)** | (12,593,298) | (15,937,429) |
| Other income (expense): | | | |
| Interest income | **200,766** | 303,746 | 564,006 |
| Interest expense | | (272,513) | (335,203) |
| Gain on sale of short-term investment | **7,782,398** | 1,427,686 | |
| Loss on disposal of property, plant and equipment | **(30,477)** | | |
| Other income | **186,788** | 8,902 | |
| | **8,139,475** | 1,467,821 | 228,803 |
| Net loss | **(4,021,497)** | (11,125,477) | (15,708,626) |
| Deemed dividend to preferred shareholders | **(1,545,917)** | (265,000) | |
| Net loss applicable to common shareholders before cumulative effect of change in accounting principle | **(5,567,414)** | (11,390,477) | (15,708,626) |
| Cumulative effect of a change in accounting principle | | $ (216,000) | |

| | | | |
|---|---|---|---|
| Net loss applicable to common share holders | **$ (5,567,414)** | $(11,606,477) | $(15,708,626) |
| Basic and diluted net loss per share applicable to commons share holders before cumulative effect | **$ (0.25)** | $ (0.57) | $ (0.84) |
| Cumulative effect of a change in accounting principle | | $ (0.01) | |
| Basic and diluted net loss per share applicable to commons share holders | **$ (0.25)** | $ (0.58) | $ (0.84) |

Table of Contents

| | Year ended December 31, | | |
|---|---|---|---|
| | **2001 RESTATED** | **2000** | **1999** |
| Shares used in computing basic and diluted net loss per share | **22,241,564** | 20,067,760 | 18,708,838 |

*See accompanying notes to consolidated financial statements.*

Table of Contents

**STEM CELLS, INC.**
**CONSOLIDATED STATEMENTS OF CHANGES IN REDEEMABLE CONVERTIBLE PREFERRED STOCK AND**
**STOCKHOLDERS EQUITY**

| | Redeemable Common Stock | | Common Stock | | Additional Paid-in Capital |
|---|---|---|---|---|---|
| | Shares | Amount | Shares | Amount | |
| Balances, December 31, 1998 | 524,337 | $5,248,610 | 17,800,323 | $178,003 | $122,861,606 |
| Issuance of common stock | | | 196,213 | 1,962 | 318,221 |
| Issuance of common stock under the stock purchase plan | | | 57,398 | 574 | 41,619 |
| Common stock issued pursuant to employee benefit plan | | | 90,798 | 908 | 102,502 |
| Exercise of stock options | | | 490,833 | 4,908 | 513,534 |
| Deferred compensation amortization and cancellations | | | | | 80,276 |
| Change in unrealized losses on marketable securities | | | | | |
| Net loss | | | | | |
| Comprehensive loss | | | | | |
| Balances, December 31, 1999 | 524,337 | $5,248,610 | 18,635,565 | $186,355 | $123,917,758 |

[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, 1998 | $(103,664,084) | $ (5,198) | $(1,472,919) | $ 17,897,408 |
| Issuance of common stock | | | | 320,183 |

| | | | | |
|---|---|---|---|---|
| Issuance of common stock under the stock purchase plan | | | | 42,193 |
| Common stock issued pursuant to employee benefit plan | | | | 103,410 |
| Exercise of stock options | | | | 518,442 |
| Deferred compensation amortization and cancellations | | | 247,919 | 328,195 |
| Change in unrealized losses on marketable securities | | 5,198 | | 5,198 |
| Net loss | (15,708,626) | | | (15,708,626) |
| Comprehensive loss | | | | (15,703,428) |
| Balances, December 31, 1999 | $(119,372,710) | $ | $(1,225,000) | $ 3,506,403 |

Table of Contents

**STEMCELLS, INC.**
**CONSOLIDATED STATEMENTS OF CHANGES IN REDEEMABLE CONVERTIBLE PREFERRED STOCK AND**
**STOCKHOLDERS EQUITY (CONTINUED)**

| | Redeemable Common Stock | | Redeemable Convertible Preferred Stock | | Common Stock | |
|---|---|---|---|---|---|---|
| | Shares | Amount | Shares | Amount | Shares | Amount |
| Balances, December 31, 1999 | 524,337 | $ 5,248,610 | | | 18,635,565 | $186,355 |
| Issuance of common stock to Millennium Partners LP, net of issuance costs of $598,563 | | | | | 1,104,435 | 11,044 |
| Issuance of common stock related to license agreements | | | | | 77,800 | 778 |
| Common stock issued pursuant to employee benefit plan | | | | | 6,672 | 68 |
| Exercise of employee stock options | | | | | 608,078 | 6,081 |
| Redeemable common stock conversion | (524,337) | (5,248,610) | | | 524,337 | 5,243 |
| Issuance of 6% convertible preferred stock | | | 1,500 | 1,283,250 | | |
| Deferred compensation | | | | | | |

[Additional columns below]

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

| Additional Paid-in Capital | Accumulated Deficit | Accumulated Other Comprehensive Income (Loss) | Deferred Compensation | Total Stockholders Equity |
|---|---|---|---|---|
| $123,917,758 | $(119,372,710) | $ | $(1,225,000) | $3,506,403 |

| | | | | |
|---|---|---|---|---|
| Balances, December 31, 1999 | | | | |
| Issuance of common stock to Millennium Partners LP, net of issuance costs of $598,563 | 4,390,393 | | | 4,401,437 |
| Issuance of common stock related to license agreements | 364,222 | | | 365,000 |
| Common stock issued pursuant to employee benefit plan | 27,112 | | | 27,180 |
| Exercise of employee stock options | 651,828 | | | 657,909 |
| Redeemable common stock conversion | 5,243,367 | | | 5,248,610 |
| Issuance of 6% convertible preferred stock | 216,750 | | | 216,750 |
| Deferred compensation | 3,555,387 | | (3,555,387) | |

Table of Contents

| | Redeemable Common Stock | | Redeemable Convertible Preferred Stock | | Common Stock | |
|---|---|---|---|---|---|---|
| | Shares | Amount | Shares | Amount | Shares | Amount |
| Amortization of deferred compensation | | | | | | |
| Unrealized gain on short-term restricted investments | | | | | | |
| Net loss | | | | | | |
| Comprehensive income | | | | | | |
| Balances , December 31, 2000 | | | 1,500 | $1,283,250 | 20,956,887 | $209,569 |

[Additional columns below]

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

| | Additional Paid-in Capital | Accumulated Deficit | Accumulated Other Comprehensive Income (Loss) | Deferred Compensation | Total Stockholders Equity |
|---|---|---|---|---|---|
| Amortization of deferred compensation | | | | 2,044,626 | 2,044,626 |
| Unrealized gain on short- term restricted investments | | | 16,356,334 | | 16,356,334 |
| Net loss | | (11,125,477) | | | (11,125,477) |
| Comprehensive income | | | | | 5,230,857 |
| Balances , December 31, 2000 | $138,366,817 | ($130,498,187) | $16,356,334 | ($2,735,761) | $ 21,698,772 |

**SEE ACCOMPANYING NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

Table of Contents

**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 |
| Balances at, December 31, 2000 | 1,500 | $1,283,250 | 20,956,887 | $209,569 |
| Issuance of common stock related to equity financing net of issuance cost $396,593 | | | 707,947 | 7,079 |
| Exercise of warrants | | | 1,856,333 | 18,563 |
| Issuance of redeemable 3% convertible preferred stock, net of issuance cost $272,485 | 5,000 | 1,542,515 | | |
| Conversion of redeemable convertible preferred shares to common stock | (1,000) | (906,500) | 500,125 | 5,001 |
| Accretion of redeemable preferred stock | | 743,667 | | |
| Common stock issued pursuant to employee benefit plan | | | 28,221 | 283 |
| Exercise of employee and consultant stock options | | | 170,508 | 1,705 |
| Compensation expense from grant of options | | | | |

[Additional columns below]

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

| | Additional Paid-in Capital | Accumulated Deficit | Accumulated Other Comprehensive Income (Loss) | Deferred Compensation | Total Stockholders Equity |
|---|---|---|---|---|---|
| Balances at, December 31, 2000 | $138,366,817 | $(130,498,187) | $ 16,356,334 | $(2,735,761) | $21,698,772 |
| Issuance of common stock related to equity | 3,596,328 | | | | 3,603,407 |

| | | | |
|---|---|---|---|
| financing net of issuance cost $396,593 | | | |
| Exercise of warrants | 2,230,603 | | 2,249,166 |
| Issuance of redeemable 3% convertible preferred stock, net of issuance cost $272,485 | 3,185,000 | | 3,185,000 |
| Conversion of redeemable convertible preferred shares to common stock | 901,499 | | 906,500 |
| Accretion of redeemable preferred stock | (743,667) | | (743,667) |
| Common stock issued pursuant to employee benefit plan | 71,882 | | 72,165 |
| Exercise of employee and consultant stock options | 242,833 | | 244,538 |
| Compensation expense from grant of options | 552,349 | | 552,349 |

Table of Contents

| | Redeemable Convertible Preferred Stock | | Common Stock | |
|---|---|---|---|---|
| | Shares | Amount | Shares | Amount |
| Deferred compensation | | | | |
| Amortization of deferred compensation | | | | |
| Realized gain on short- term investments | | | | |
| Unrealized loss on short- term investments | | | | |
| Net loss (RESTATED) | | | | |
| Comprehensive loss | | | | |
| Balances, December 31, 2001 (RESTATED) | 5,500 | $2,662,932 | 24,220,021 | $242,200 |

[Additional columns below]

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

| | Additional Paid-in Capital | Accumulated Deficit | Accumulated Other Comprehensive Income (Loss) | Deferred Compensation | Total Stockholders Equity |
|---|---|---|---|---|---|
| Deferred compensation | 776,744 | | | (776,744) | |
| Amortization of deferred compensation | | | | 1,242,408 | 1,242,408 |
| Realized gain on short- term investments | | | (7,782,398) | | (7,782,398) |
| Unrealized loss on short- term investments | | | (8,573,936) | | (8,573,936) |
| Net loss (RESTATED) | | (4,021,497) | | | (4,021,497) |
| Comprehensive loss | | | | | (4,021,497) |
| | $149,180,388 | ($134,519,684) | $ | ($2,270,097) | $12,632,807 |

| | | | | |
|---|---|---|---|---|
| Balances, December 31, 2001 (RESTATED) | | | | |

Table of Contents

**STEMCELLS, INC.**
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

| | Year ended December 31, | | |
|---|---|---|---|
| | **2001 RESTATED** | **2000** | **1999** |
| **Cash flows from operating activities:** | | | |
| Net loss | **$ (4,021,497)** | $(11,125,477) | $(15,708,626) |
| Adjustments to reconcile net loss to net cash used in operating activities: | | | |
| Depreciation and amortization | **648,273** | 738,593 | 1,717,975 |
| Amortization of deferred compensation | **1,242,408** | 2,044,627 | 328,195 |
| Compensation expense related to the grant of stock options | **563,872** | | |
| Fair market adjustment for property held for sale | | | 300,000 |
| Other non-cash charges | | | 320,183 |
| Gain on sale of short-term investments | **(7,782,398)** | (1,427,686) | |
| Gain on sale of rights to technology | **(300,000)** | | |
| Loss on disposal of fixed assets | **30,477** | | 1,117,286 |
| Loss on sale of intangibles | | | 440,486 |
| Changes in operating assets and liabilities: | | | |
| Accrued interest receivable | **12,087** | 25,488 | 164,397 |
| Other receivable | **(49,590)** | 3,000,000 | |
| Other current assets | **162,873** | 315,213 | 283,000 |
| Other assets, net | **(196,432)** | | |
| Accounts payable and accrued expenses | **(1,344,195)** | (92,255) | 1,344,142 |
| Accrued rent | **414,259** | 203,393 | 279,680 |
| Deposits | 103,896 | | |
| Deferred revenue | | | (2,500,000) |
| Net cash used in operating activities | **(10,515,967)** | (6,318,104) | (11,913,282) |
| **Cash flows from investing activities:** | | | |
| Proceeds from sale of short-term investments | **7,782,398** | 1,427,686 | |
| Purchases of marketable securities | | | (4,397,676) |
| Proceeds from sales of marketable securities | | | 13,923,813 |
| Purchases of property, plant and equipment | **(334,321)** | (151,212) | (192,747) |
| Proceeds on sale of fixed assets | **40,795** | | 746,448 |
| Acquisition of other assets | **(50,344)** | (886,751) | (558,311) |
| Proceeds from sale of rights to technology, net | **300,000** | | |
| Disposal of other assets | | | 440,486 |
| Net cash provided by investing activities | **7,738,528** | 389,723 | 9,962,013 |

| | | | |
|---|---|---|---|
| **Cash flows from financing activities:** | | | |
| Proceeds from issuance of common stock, net | **5,852,573** | 4,401,437 | 145,603 |
| Proceeds from the exercise of stock options | **157,682** | 685,089 | 518,442 |
| Common stock issued for agreements | | 365,000 | |
| Proceeds from issuance of preferred stock, net | **4,727,515** | 1,500,000 | |
| Change in debt service fund | | 609,905 | |
| Repayments of debt and lease obligations | **(332,083)** | (324,167) | (1,817,500) |
| Net cash provided by (used in) financing activities | **10,405,687** | 7,237,264 | (1,153,455) |

Table of Contents

| | Year ended December 31, | | |
|---|---|---|---|
| | **2001 RESTATED** | **2000** | **1999** |
| Increase (decrease) in cash and cash equivalents | **7,628,248** | 1,308,883 | (3,104,724) |
| Cash and cash equivalents at beginning of year | **6,068,947** | 4,760,064 | 7,864,788 |
| Cash and cash equivalents at end of the year | **$13,697,195** | $6,068,947 | $ 4,760,064 |
| Supplemental disclosure of cash flow information: | | | |
| Interest paid | **$ 246,328** | $ 272,513 | $ 335,203 |

**SEE ACCOMPANYING NOTES TO CONSOLIDATED FINANCIAL STATEMENTS.**

**STEMCELLS, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

DECEMBER 31, 2001

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. Since inception, the Company has incurred annual losses and negative cash flows from operations and has an accumulated deficit of approximately $134.5 million at December 31, 2001. 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.

**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 FINANCIAL STATEMENTS**

The Company has restated its consolidated financial statements for the year ended December 31, 2001. The Company has determined that it needs 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(B) - Other Costs to Exit an Activity. EITF issue 94-3(B) requires that, instead of expensing costs as incurred, the Company accrue what it can reasonably estimate as its carrying cost to an estimated fully leased or disposal date. Accordingly, in its restated financial statements for the year ended December 31, 2001, based on information estimated as of that date, the Company accrued $575,000 as estimated wind-down expenses. The restatement increased net loss applicable to common shareholders by $575,000 or $0.03 per share. (See footnote 2 to the consolidated financial statements.)

**USE OF ESTIMATES**

Table of Contents

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States, 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.

**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. 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 shares of Modex.

**COMPREHENSIVE INCOME**

Comprehensive income is comprised of net income and other comprehensive income. The only component of other comprehensive income is unrealized gains and losses on our available-for-sale securities. Comprehensive income has been disclosed in the statement of changes in redeemable preferred stock and stockholders equity.

**PROPERTY, PLANT AND EQUIPMENT**

As a result of the Company s decision to wind down the encapsulated cell technology and relocate its corporate headquarters to California, certain property considered by management to no longer be

**STEMCELLS, INC.**
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)**
DECEMBER 31, 2001

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

necessary has been made available for sale or lease. The aggregate carrying value of such property has been reviewed by management, subject to appraisal and adjusted downward to estimated market value.

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:

Table of Contents

| | |
|---|---|
| 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.

**PATENT AND LICENSE COSTS**

Prior to fiscal year 2001, the Company capitalizes certain patent costs related to patent applications. Accumulated costs are 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 in 2001 the Company expenses all patent costs as incurred. At December 31, 2001 and 2000, total costs capitalized were $980,000 and $638,000 and the related accumulated amortization was $125,000 and $9,000, respectively. The increase in year 2001 was a result of a reclassification from licenses to patents. Patent expense totaled $647,000, $305,000, and $539,000 in 2001, 2000 and 1999, 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. 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.

The company accounts for stock options granted to non-employees in accordance with FAS No. 123 ACCOUNTING FOR STOCK-BASED COMPENSATION AND 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.

**STEMCELLS, INC.**
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)**
DECEMBER 31, 2001

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

**LONG LIVED ASSETS**

Table of Contents

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

**REVENUE RECOGNITION**

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

**RECENT ACCOUNTING PRONOUNCEMENTS**

In July 2001, the FASB issued Statement of Financial Accounting Standards No. 141, Business Combinations (Statement 141). This Statement addresses financial accounting and reporting for business combinations. Statement 141 supersedes APB Opinion No. 16, Business Combinations, and amends or supersedes a number of interpretations of that Opinion. Statement 141 requires that (1) all business combinations be accounted for by a single method the purchase method, (2) all intangible assets acquired in a business combination are to be recognized as assets apart from goodwill if they meet one of two criteria the contractual-legal criterion or the separability criterion and (3) in addition to the disclosure requirements in Opinion 16, disclosure of the primary reasons for a business combination and the allocation of the purchase price paid to the assets acquired and liabilities assumed by major balance sheet caption. When the amounts of goodwill and intangible assets acquired are significant in relation to the purchase price paid, disclosure of other information about those assets is required, such as the amount of goodwill by reportable segment and the amount of the purchase price assigned to each major intangible asset class. The provisions of Statement 141 apply to all business combinations initiated after June 30, 2001. Statement 141 also applies to all business combinations accounted for using the purchase method for which the date of acquisition is July 1, 2001, or later. The Company will adopt the provisions of Statement 141 for any business combinations that may be initiated.

Table of Contents

**STEMCELLS, INC.**
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)**
DECEMBER 31, 2001

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

In July 2001, the FASB issued Statement of Financial Accounting Standards No. 142, Goodwill and Other Intangibles ( Statement 142 ). Under Statement 142, goodwill and indefinite lived intangible assets are no longer amortized but are reviewed annually (or more frequently if impairment indicators arise) for impairment. Separable intangible assets that are not deemed to have an indefinite life will continue to be amortized over their estimated useful lives. The Company has not recorded any goodwill or indefinite lived intangible assets prior to December 31, 2001. The adoption of this statement as of January 1, 2002 will not have a material impact on the Company s financial position, results of operations or cash flow.

In October 2001, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets ( Statement 144 ), which addresses financial accounting and reporting for the impairment or disposal of long-lived assets and supersedes Statement 121, Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed Of , and the accounting and reporting provisions of APB Opinion No. 30, Reporting the Results of Operations for a disposal of a segment of a business. Statement 144 is effective for fiscal years beginning after December 15, 2001. The Company will adopt Statement 144 as of January 1, 2002 and it does not expect that the adoption of the Statement will have a significant impact on the Company s financial position and results of operations.

**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. 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.

2. WIND-DOWN OF ENCAPSULATED CELL TECHNOLOGY RESEARCH AND DEVELOPMENT PROGRAM

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. The results from the 85-patient double-blind, placebo-controlled trial of our encapsulated bovine cell implant for the treatment of severe, chronic pain in cancer patients did not, however, meet the criteria AstraZeneca had established for continuing trials for the therapy, and in June 1999 AstraZeneca terminated the collaboration, as allowed under the terms of the original collaborative agreement signed in 1995.

Table of Contents

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 the facilities of its wholly owned subsidiary, StemCells California, Inc., in California, in October 1999. The Company terminated legal, professional and consulting contractual arrangements in support of ECT research. The Company had used these legal, professional and consulting contractual arrangements to meet regulatory requirements in support of its research work, to support contractual arrangements with clinical sites, to provide assistance at clinical sites in administrating therapy and documenting activities, and to assist in compliance with FDA and other regulations regarding its clinical trials. ECT related patent law work was also terminated. The Company also engaged professional consultants in connection with the determination to exit its ECT activities and restructure its operations, which concluded with the exit from ECT activities and relocation of its corporate headquarters to California. The Company reduced its workforce by approximately 58 employees who had been focused on ECT programs and 10 administrative employees. As a result, the Company sold excess furniture and equipment in December 1999 and is seeking to sublease the science and administrative facility and to sell the pilot manufacturing facility.

Wind-down expenses totaled $575,000, $3,327,360 and $6,047,806, for the year ended December 31, 2001, 2000 and 1999, respectively. These expenses relate to the wind-down of our encapsulated cell technology research and other Rhode Island operations and the transfer of the corporate headquarters to California.

At December 31, 1999, the Company s $1.6 million wind-down reserve included approximately $1.2 million for the RIPSAT settlement and approximately $0.4 million for Rhode Island facility for the estimated lease payments and operating costs of the Rhode Island facilities through an expected disposal date of June 30, 2000. In 2000 the Company settled with RIPSAT, paid $1.2 million and paid 0.4 million related to Rhode Island facilities. The Company did not sublet the Rhode Island facilities in 2000 and therefore made a change in estimate to accrue additional expenses of $3.3 million to cover operating lease payments, utilities, taxes, insurance, maintenance, interest and other non-employee expenses through 2001. In the year 2001 the Company paid $1.7 million of expenses which were recorded against the reserve. In the year 2001 we utilized all of the reserve and subsequently as of the end of 2001 revised our estimate by establishing an additional reserve of $575,000 related to the rent and operating expenses net of subtenant rent income for our former corporate headquarters in Rhode Island. This estimate was based in part on the information provided by our broker/realtor in Rhode Island as to the length of time that would probably be required to have the facility fully occupied. We have subleased portions of the facilities and are actively seeking to sublease, assign or sell our remaining interests in the properties. However, there can be no assurance that we will be able to fully lease or dispose of these facilities in a reasonable time, if at all. As we cannot predict the exact disposal date of these properties, we will continue to evaluate and record all future estimated expenses periodically, based on an estimated fully leased or disposed-of date.

A description of wind-down expenses, including the amounts and periods of recognition, are as follows:

Table of Contents

| | YEAR ENDED DECEMBER 31, 2001 RESTATED | YEAR ENDED DECEMBER 31, 2000 | YEAR ENDED DECEMBER 31, 1999 |
|---|---|---|---|
| Employee severance costs | | | $1,554,000 |
| Impairment losses (1): | | | |
| Fixed assets | | | 800,000 |
| ECT Patents | | | 260,000 |
| | | | 1,060,000 |
| Rhode Island facilities carrying costs(2): | | | |
| Corporate headquarters | $575,000 | $3,327,000 | 702,000 |
| Pilot manufacturing plant | | | 562,000 |
| | 575,000 | 3,327,000 | 1,264,000 |
| Employee outplacement | | | 200,000 |
| RIPSAT settlement (3) | | | 1,172,000 |
| Loss on sale of assets (4) | | | |
| Fixed assets | | | 318,000 |
| ECT Patents | | | 180,000 |
| | | | 498,000 |
| Write-down of pilot plant(5) | | | 300,000 |
| | $575,000 | $3,327,000 | $6,048,000 |

(1) Management s estimate of the fixed asset impairment was derived from communications with an outside auction house. The patent impairment loss was based on preliminary negotiations with parties interested in acquiring the patents.

(2) Facilities carrying costs include operating lease payments, utilities, property taxes, insurance, maintenance, interest and other non-employee related expenses necessary to maintaining these facilities through December 31, 2001

(3) The Company originally received funding from the Rhode Island Partnership for Science and Technology (RIPSAT) for purposes of conducting ECT activities conditioned upon maintaining the operation within the state. RIPSAT claimed that the Company s decision to exit ECT activities and close the Rhode Island operation was in violation of the funding arrangement and that the Company was obligated to return a portion of the funding proceeds. Although the Company disputed these claims, during the fourth quarter of 1999, management determined it was in the best interest of the Company to settle the issue.

(4) The Company held an auction to sell all ECT fixed assets. Proceeds from that sale resulted in a loss, which was related to machinery and equipment ($292,000), and furniture and fixtures ($26,000).

Table of Contents

(5) The write-down of the pilot plant was based on an independent property appraisal.

Property held for sale at December 31, 2001 and 2000, consisted of $3.2 million relating to the Company s pilot plant facility located in Lincoln, Rhode Island. The Company suspended depreciation of these assets in 1999. The balance reflected a $300,000 impairment loss included as part of the additional wind-down expenses.

3. STEMCELLS CALIFORNIA, INC.

In September 1997, a merger of a wholly owned subsidiary of the Company and StemCells California, Inc. was completed. As part of the acquisition of StemCells, Richard M. Rose, M.D., became President, Chief Executive Officer and director of the Company and Dr. Irving Weissman became a director of the Company. Upon consummation of the merger, the Company entered into consulting arrangements with the principal scientific founders of StemCells: Dr. Irving Weissman, Dr. Fred H. Gage and Dr. David Anderson. Additionally, in connection with the merger, the Company was granted an option by the former shareholders of StemCells to repurchase 500,000 of the Company s shares of Common Stock exchanged for StemCells shares, upon the occurrence of certain events. 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, 2001 was $968,000. 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 will 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 $1,647,000 and $692,000 for the year 2000 and 2001 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 $1,104,000 at December 31, 2001. As part of the revision of the options, Drs. Weissman and Gage relinquished all rights under an agreement. These individuals 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 plans to revalue the options using the Black-Scholes method on a quarterly basis and recognize additional compensation expense accordingly.

4. INVESTMENTS

Table of Contents

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 01, 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.

5. 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.

6. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment consists of the following:

| | DECEMBER 31, | |
|---|---|---|
| | **2001** | **2000** |
| Building and improvements | $ 715,397 | $ 703,095 |
| Machinery and equipment | 1,884,581 | 1,766,448 |
| Furniture and fixtures | 273,999 | 188,736 |
| | 2,873,977 | 2,658,279 |
| Less accumulated depreciation and amortization | (1,654,658) | (1,207,218) |
| | $ 1,219,319 | $ 1,451,061 |

Depreciation expense was $495,000, $451,000, and $1,436,000 for the years ending December 31, 2001, 2000 and 1999, respectively.

Certain property, plant and equipment in Rhode Island were acquired under capital lease obligations. These assets totaled $5,827,000 at December 31, 2001 and 2000, respectively, with related accumulated

Table of Contents

amortization of $2,747,000 at December 31, 2001 and 2000, respectively. As a result of the Company s decision to wind down its operations in Rhode Island and relocate to California, this property has been classified as held for sale.

7. OTHER ASSETS, NET

Other assets are as follows:

| | DECEMBER 31, | |
|---|---|---|
| | 2001 | 2000 |
| Patents, net | $ 854,974 | $ 629,203 |
| License agreements, net | 380,092 | 669,000 |
| Security deposit building lease | 752,500 | 750,000 |
| Deposit other | 4,641 | 16,321 |
| Deferred financing costs, net | | 109,388 |
| Restricted Cash (Letter of Credit) | 275,000 | |
| | $2,267,207 | $2,173,912 |

At December 31, 2001 and 2000, accumulated amortization was $1,293,000 and $1,140,000, respectively, for patents and license agreements.

8. ACCRUED EXPENSES

Accrued expenses are as follows:

| | DECEMBER 31, | |
|---|---|---|
| | 2001 | 2000 |
| External services | $ 88,649 | $219,051 |
| Employee compensation | 173,645 | 109,007 |
| Other | 236,871 | 509,300 |
| | $499,165 | $837,358 |

9. LEASES

Table of Contents

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. Fixed 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 a rent escalation clause and accordingly, the Company is recognizing rent expense on a straight-line basis. At December 31, 2001, the Company had $918,528 in deferred rent expense for this facility.

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 new 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. The rent will average approximately $3.15 million per year over the term of the lease. In addition the Company has issued a letter of credit amounting to $275,000 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, 2001 the Company had $201,477 in deferred rent expense for this facility. The lease on the Company s former Sunnyvale headquarters was terminated on August 31, 2001.

As of December 31, 2001, 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 |
|---|---|---|---|
| 2002 | $ 519,719 | $ 2,308,838 | $1,265,692 |
| 2003 | 436,909 | 4,568,274 | 2,000,746 |
| 2004 | 425,713 | 4,677,197 | 2,016,578 |
| 2005 | 412,587 | 4,789,388 | 2,072,545 |
| 2006 | 401,289 | 1,268,120 | 675,653 |
| Thereafter | 1,910,288 | 7,529,296 | |
| Total minimum lease payments | 4,106,505 | $25,141,113 | $8,031,214 |
| Less amounts representing interest | 1,501,505 | | |
| Present value of minimum lease payments | 2,605,000 | | |
| Less current maturities | 289,167 | | |
| Capitalized lease obligations, less current maturities | $2,315,833 | | |

57

Table of Contents

Rent expense for the years ended December 31, 2001, 2000 and 1999, was $2,629,000, $1,111,000 and $947,000 respectively.

10. 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 drug for the disease. The Company received $300,000, of which $150,367 represents the Company s share of the joint effort through June 30, 2001 and has been recognized as revenue. The remainder, $149,633, was paid to Stanford University as its share of the joint effort. In addition 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. As of December 31, 2001 the Company has recognized $56,250 related to this award.

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. The calculated value of these callable warrants using the Black-Scholes method is $701,073, which is accounted for as stock issuance cost.

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

Table of Contents

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.

**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. The Company, at its sole discretion, may draw down on this facility, from time to time, and Sativum is 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. The Company s volume weighted average market price is calculated by adding the total dollars traded in every transaction in a given trading day and dividing that number by the total number of shares traded during that trading day. The Company is limited with respect to how often it can 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), Pacific Crest Securities Inc. (75,000 shares) and Granite Financial Group, Inc. (25,000 shares). 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 cannot sell more than 3,922,606 shares pursuant to the common stock purchase agreement without stockholder approval. The Company delivered a draw down notice to Sativum Investments Limited, dated as of July 11, 2001, exercising the Company s right to draw down up to $5,000,000 at a market-based share price not less than $5.00 per share beginning July 12, 2001. Sativum purchased a total of 707,947 shares of the Company s common stock at an average purchase price of $5.65 per share, net of Sativum s discount of six percent. Because the market based price of the Company s common stock was less than $5.00 for four trading days during the draw down period, the $5,000,000 request was reduced to $4,000,000. The Company s placement agents, Pacific Crest Securities, Inc. and Granite Financial Group, Inc. received $80,000 and $40,000, respectively, as placement fees in connection with this draw down, resulting in net proceeds to the Company of $3,603,407, after paying escrow fees and other associated costs. The Company s placement agents have exercised their warrants in full, and the Company has received payment of $238,050 for the shares issued to them.

**3% CUMULATIVE CONVERTIBLE PREFERRED STOCK**

Table of Contents

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 is convertible into shares of the Company s common stock at a conversion price of $2.00 per share at the option of Riverview Group. The preferred stock contains a mandatory redemption feature where the Company will redeem unconverted preferred stock on December 4, 2003. The conversion price is subject to adjustment for stock splits, dividends, distributions, reclassifications and similar events. The conversion price may be below the trading market price at the time of the conversion. The final closing on the NASDAQ National Market of the Company s common stock on December 4, 2001 was $2.90 per share. The company has valued the warrants and the beneficial conversion feature reflecting the Dec 4, 2001 commitment date and the most beneficial per share discount available to the preferred shareholders. As the preferred shares contain a stated redemption, such value of $3,185,000, including issuance costs of $272,485, is recorded as a discount to the preferred shares. The preferred shares will be accreted to its mandatory redemption amount and the accretion will result in a deemed dividend. The deemed dividend has been reflected as an adjustment to net loss applicable to common stockholders. The Company filed a registration statement on Form S-3 covering the shares of common stock underlying the 3% Cumulative Convertible Preferred Stock, and the SEC declared it effective on January 10, 2002. On December 7, 2001, Riverview Group converted 1,000 shares of its 3% cumulative convertible preferred stock for 500,125 shares of the Company s common stock. The holders of the preferred stock have liquidation rights equal to their original investment plus accrued but unpaid dividends.

**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 our 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), and will be converted automatically on April 13, 2002 if they have not been converted before then. 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.

In July 2001, the SEC staff made a staff announcement, Classification and Measurement of Redeemable Securities , (EITF D-98) which clarifies Rule 5-02.28 of Regulation S-X, which was previously adopted in accounting series Release No. 268, Presentation in Financial Statements of Redeemable Preferred

Table of Contents

Stock . This announcement addresses financial statement classification and measurement of securities subject to mandatory redemption requirements or whose redemption is outside of the control of the issuer. Rule 5-02.28 requires preferred securities that are redeemable for cash or other assets to be classified outside of permanent equity if they are redeemable (1) at a fixed or determinable price on a fixed or determinable date (2) at the option of the holder, or (3) upon the occurrence of an event that is not solely within the control of the issuer.

The 6% cumulative convertible preferred stock issued in April 2000 was classified with stockholders equity since issuance. The agreement provides that a mandatory redemption is triggered if a change in control occurs. A purchaser could acquire a majority of the voting power of the outstanding stock, without Company approval, thereby triggering a redemption. Accordingly the Company has reclassified the 6% cumulative convertible preferred stock outside of permanent equity for all periods presented, in accordance with the transition guidance of EITF D-98. Since a majority of the outstanding stock of the Company is the control of outside investors, a hostile takeover or other sale could occur outside the control of the Company and thereby trigger a change in control and ultimately a redemption. There is no accretion of the fair value of the preferred shares to its redemption amount because the redemption is uncertain. The redemption only takes place when the Company s outside investors vote for a takeover or a sale and there is no current indication that this event will occur.

**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 the non-transplant field, or in any products employing NeuroSpheres patents for generating cells of the blood and immune system from neural stem cells.

The Company also entered into license agreements with the California Institute of Technology and issued 27,313 shares of common stock upon execution of the license agreement and its amendment. The Company must pay an additional $10,000 upon the issuance of each of the four patents licensed under the amended agreement. 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, 9,675 of which have vested by passage of time and the others of which will vest, if at all, on the achievement of specified milestones.

**STOCK OPTION AND EMPLOYEE STOCK PURCHASE PLANS**

The Company has adopted several stock plans that provide for the issuance of incentive and nonqualified stock options, performance awards and stock appreciation rights, at prices to be determined by the Board of Directors. In the case of incentive stock options, such price will not be less than the fair market value on the date of grant. Options generally vest ratably over four years and are exercisable for ten years from

Table of Contents

the date of grant or within three months of termination. At December 31, 2001, the Company had reserved 6,615,261 shares of common stock for the exercise of stock options.

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

| | 2001 | | 2000 | | 1999 | |
|---|---|---|---|---|---|---|
| | Options | Weighted Average Exercise Price | Options | Weighted Average Exercise Price | Options | Weighted Average Exercise Price |
| Outstanding at January 1 | **2,716,966** | **$ 4.32** | 939,335 | $ 2.65 | 1,654,126 | $ 3.62 |
| Granted | **1,212,082** | **2.61** | 2,485,090 | 4.08 | 536,078 | 1.08 |
| Exercised | **(170,105)** | **0.93** | (540,927) | 1.015 | (604,362) | 1.5 |
| Canceled | **(106,383)** | **2.26** | (166,532) | 4.77 | (646,507) | 5.31 |
| Outstanding at December 31 | **3,652,560** | **3.98** | 2,716,966 | $ 4.32 | 939,335 | $ 2.65 |
| Options exercisable at December 31 | **1,287,918** | **$ 3.74** | 731,523 | $ 4.01 | 594,216 | $ 3.44 |

**FAS 123 DISCLOSURES**

The Company has adopted the disclosure provisions only of Statement of Financial Accounting Standards No. 123, ACCOUNTING FOR STOCK-BASED COMPENSATION ( FAS 123 ) and accounts for its stock option plans in accordance with the provisions of APB 25, ACCOUNTING FOR STOCK ISSUED TO EMPLOYEES.

The following table presents weighted average price and life information about significant option groups outstanding at December 31, 2001:

| | Options Outstanding | | | Options Exercisable | |
|---|---|---|---|---|---|
| Range of Exercise Prices | Number Outstanding | Weighted Average Remaining Contractual | Weighted Average Exercise Price | Number Exercisable | Weighted Average Exercise Price |

| | | Life (Yrs.) | | | |
|---|---|---|---|---|---|
| Less than $5.00 | **1,884,560** | **8.71** | **$ 2.53** | **832,046** | **$ 2.32** |
| $5.01 - $10.00 | **1,687,000** | **5.88** | **5.25** | **374,872** | **5.28** |
| Greater than $10.00 | **81,000** | **0.94** | **11.03** | **81,000** | **11.03** |
| | **3,652,560** | | | **1,287,918** | |

Pursuant to the requirements of FAS 123, the following are the pro forma net loss and net loss per share amounts for 2001, 2000, and 1999, as if the compensation cost for the option plans and the stock purchase plan had been determined based on the fair value at the grant date for grants in 2001, 2000, and 1999, consistent with the provisions of FAS 123:

Table of Contents

| | 2001 RESTATED | | 2000 | | 1999 | |
|---|---|---|---|---|---|---|
| | As Reported | Pro Forma | As Reported | Pro Forma | As Reported | Pro Forma |
| Net loss | **$(4,021,497)** | **$(5,776,774)** | $(11,125,477) | $(12,160,752) | $(15,708,626) | $(15,764,569) |
| Net loss per share | **$ (.25)** | **$ (.30)** | $ (.58) | $ (.62) | $ (.84) | $ (.84) |

The weighted average fair value per share of options granted during 2001, 2000 and 1999 was $2.61, $4.13 and $.82, respectively. The fair value of options and shares issued pursuant to the stock purchase plan at the date of grant were estimated using the Black-Scholes model with the following weighted average assumptions:

| | Options | | | Stock Purchase Plan | | |
|---|---|---|---|---|---|---|
| | 2001 | 2000 | 1999 | 2001 | 2000 | 1999 |
| Expected life (years) | 5 | 5 | 5 | N/A | N/A | .5 |
| Interest rate | 4.39% | 6.5% | 5.5% | N/A | N/A | 5.0% |
| Volatility | 154.2% | 167.8% | 96.7% | N/A | N/A% | 96.7% |

The Company has never declared nor paid dividends on any of its capital stock and does not expect to do so in the foreseeable future. On August 04, 1999 the board suspended the 1992 Employee Stock Purchase Plan.

The effects on pro forma net loss and net loss per share of expensing the estimated fair value of stock options and shares issued pursuant to the stock purchase plan 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.

**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.

Table of Contents

| | |
|---|---|
| Shares reserved for exercise of stock options | 6,615,261 |
| Shares reserved for the employee benefit plan | 23,031 |
| Shares reserved for the equity line and related warrants | 5,250,000 |
| Shares Reserved for 6% convertible preferred stock and related warrants | 945,486 |
| Shares Reserved for 3% convertible preferred stock and related warrants | 2,845,339 |
| Total | 15,679,117 |

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 $309,000 in 1999, $225,000 in 2000, and $0 in 2001. 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 and $105,000 in 2001. 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, 9,675 of which have vested by passage of time and the others of which will vest, if at all, on the achievement of specified milestones.

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 its agreement, the Company paid Stanford approximately $150,000 in 2001.

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:

Table of Contents

| | DECEMBER 31, | |
|---|---|---|
| | 2001 | 2000 |
| Deferred tax assets: | | |
| Capitalized research and development costs | $ 3,770,000 | $ 6,000,000 |
| Net operating losses | 43,700,000 | 44,000,000 |
| Research and development credits | 4,460,000 | 4,260,000 |
| Other | 80,000 | 893,000 |
| Deferred tax liabilities: | | |
| Unrealized gain on investments | | (6,543,000) |
| Valuation allowance | (52,010,000) | (48,610,000) |
| 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 $3,400,000, $1,084,000 and $6,272,000 during 2001, 2000 and 1999, respectively.

As of December 31, 2001 the Company had net operating loss carryforwards for federal income tax purposes of approximately $110,000,000 which expire in the years 2004 through 2021, and federal research and development tax credits of approximately $4,100,000 which expire in the year 2004 through 2021.

**STEMCELLS, INC.**
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)**
DECEMBER 31, 2001

13. INCOME TAXES (CONTINUED)

Utilization of the Company s net operating loss may be subject to substantial annual limitation due to ownership change limitations provided 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 $63,000, $33,000, and $103,000 for the years ended December 31, 2001, 2000 and 1999, respectively.

15. QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

65

Table of Contents

| | QUARTER | | | |
|---|---|---|---|---|
| | FIRST | SECOND | THIRD | FOURTH (RESTATED) |
| | (IN THOUSANDS, EXCEPT PER SHARE DATA) | | | |
| 2001: | | | | |
| Total revenue | $ 100 | $ 300 | $ 276 | $ 129 |
| Operating expenses | 2,641 | 3,959 | 2,119 | 4,247 |
| Net income (loss) | 269 | 1,595 | (1,787) | (4,099) |
| Basic and diluted net income(loss) per share applicable to common Shareholders, as reported | $ 0.01 | $ 0.07 | $ (0.08) | $ (0.19) |
| Basic and diluted net income (loss) per share applicable to common Shareholders, restated (1) | * | $ 0.05 | $ (0.08) | $ (0.21) |
| 2000: | | | | |
| Net revenue | $ | $ | $ | $ 74 |
| Operating expenses | 1,799 | 1,939 | 2,553 | 6,378 |
| Net loss | (1,794) | (532) | (2,539) | (6,260) |
| Basic and diluted net loss per share applicable to common shareholders | $ (0.09) | $ (0.04) | $ ( 0.13) | $ (0.30) |
| Cumulative effect of a change in accounting principle | | | | $ (0.01) |

* Less than $(0.01) per share

(1) See footnote 1 and footnote 2

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

Not applicable.

**PART III**

**ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT, PROMOTERS AND CONTROL**

The information required by this Item is incorporated by reference from our Proxy Statement for the Annual Meeting of Shareholders to be held on May 2, 2002.

**ITEM 11. EXECUTIVE COMPENSATION**

The information required by this Item is incorporated by reference from our Proxy Statement for the Annual Meeting of Shareholders to be held on May 2, 2002.

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

Table of Contents

The information required by this Item is incorporated by reference from our Proxy Statement for the Annual Meeting of Shareholders to be held on May 2, 2002.

## ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The information required by this Item is incorporated by reference from our Proxy Statement for the Annual Meeting of Shareholders to be held on May 2, 2002.

## PART IV

## ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K

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

(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 not included herein are omitted 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. |
| 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 |

Table of Contents

| EXHIBIT NO. | TITLE OR DESCRIPTION |
|---|---|
| 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. |
| 4.17{**} | Warrant to Purchase Common Stock Riverview Group, LLC |
| 4.18XXXX | Warrant to Purchase Common Stock Cantor Fitzgerald & Co. |
| 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. |

Table of Contents

| EXHIBIT NO. | TITLE OR DESCRIPTION |
|---|---|
| 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. |
| 10.14++ | Lease Agreement between the Registrant and Rhode Island Industrial Facilities Corporation, dated as of August 1, 1992. |
| 10.15++ | First Amendment to Lease Agreement between Registrant and The Rhode Island Industrial Facilities Corporation dated as of September 15, 1994. |
| 10.17**++++ | Development, Marketing and License Agreement, dated as of March 30, 1995 between Registrant and Astra AB. |
| 10.18++++ | Form of Unit Purchase Agreement to be executed by the purchasers of the Common Stock and Warrants offered in April 1995. |
| 10.19+++ | Form of Common Stock Purchase Agreement to be executed among the Registrant and certain purchasers of the Registrant s Common Stock. |
| 10.22### | Lease Agreement dated as of November 21, 1997 by and between Hub RI Properties Trust, as Landlord, and CytoTherapeutics, Inc., as Tenant. |
| 10.24!! | CTI individual stockholders option agreement dated as of July 10, 1996 among the Company and the individuals listed therein. |
| 10.25!! | CTI Valoria option agreement dated of July 10, 1996 between the Company and the Societe Financiere Valoria SA. |
| 10.26!!! | Term Loan Agreement dated as of October 22, 1996 between The First National Bank of Boston and the Registrant. |
| 10.27*** | Agreement and Plan of Merger dated as of August 13, 1997 among StemCells, Inc., the Registrant and CTI Acquisition Corp. |
| 10.28*** | Consulting Agreement dated as of September 25, 1997 between Dr. Irving Weissman and the Registrant. |

| | |
|---|---|
| 10.29### | Letter Agreement among each of Dr. Irving Weissman and Dr. Fred H. Gage and the Registrant. |
| 10.32**** | StemCells, Inc. 1996 Stock Option Plan. |
| 10.33**** | 1997 StemCells Research Stock Option Plan (the 1997 Plan ) |

Table of Contents

| EXHIBIT NO. | TITLE OR DESCRIPTION |
|---|---|
| 10.34**** | Form of Performance-Based Incentive Option Agreement issued under the 1997 Plan. |
| 10.35### | Employment Agreement dated as of September 25, 1997 between Dr. Richard M. Rose and the Registrant. |
| 10.38{*} | Rights Agreement, dated as of July 27, 1998 between Bank Boston, N.A. as Rights Agent and the Registrant. |
| 10.40$** | Consulting Services Agreement dated as of July 27, 1998, as amended December 19, 1998 between Dr. John J. Schwartz and the Registrant. |
| 10.41$** | Letter Agreement dated as of December 19, 1998 between John J. Schwartz and the Registrant. |
| 10.42$** | License Agreement dated as of October 27, 1998 between The Scripps Research Institute and the Registrant. |
| 10.43$** | License Agreement dated as of October 27, 1998 between The Scripps Research Institute and the Registrant. |
| 10.44$** | License Agreement dated as of November 20, 1998 between The Scripps Research Institute and the Registrant. |
| 10.45$$** | Purchase Agreement and License Agreement dated as of December 29, 1999 between Neurotech S.A. and the Registrant. |
| 10.46++++** | License Agreement dated as of June 1999 between The Scripps Research Institute and the Registrant. |
| 10.47++++** | License Agreement dated as of June 1999 between The Scripps Research Institute and the Registrant. |
| 10.48X | Form of Registration Rights Agreement dated as of July 31, 2000 between the Registrant and investors. |
| 10.49X | Subscription Agreement dated as of July 31, 2000 between the Registrant and Millennium Partners, L.P. |
| 10.50XXX | Common Stock Purchase Agreement, dated as of May 10, 2001, between the Registrant and Sativum Investments Limited. |
| 10.51XXX | |

| | |
|---|---|
| | Escrow Agreement, dated as of May 10, 2001, among the Registrant, Sativum Investments Limited and Epstein, Becker & Green, P.C. |
| 10.52XX | License Agreement, dated as of October 30, 2000, between the Registrant and NeuroSpheres Ltd. |
| 10.53XX | Letter Agreement, dated January 2, 2001, between the Registrant and Martin McGlynn |
| 10.54XX | Lease, dated February 1, 2001, between the Board of Trustees of Stanford University and the Registrant. |

Table of Contents

| EXHIBIT NO. | TITLE OR DESCRIPTION |
|---|---|
| 10.55XXX | Registration Rights Agreement, dated as of June 21, 2001, by and between the Registrant and Millennium Partners, L.P. |
| 10.56XXX | Subscription Agreement, dated as of June 21, 2001, by and between the Registrant and Millennium Partners, L.P. |
| 10.57$$$ | 2001 Equity Incentive Plan |
| 10.58{**} | Subscription Agreement, dated as of December 4, 2001 between the Registrant and Riverview Group, L.L.C. |
| 10.59{**} | Registration Rights Agreement, dated as of December 4, 2001 between the Registrant and Riverview Group, L.L.C. |
| 10.60{**} | Agreement dated as of December 4, 2001 between the Registrant and Millennium Partners, L.P. |
| 10.61{**} | Agreement dated as of December 4, 2001 among the Registrant, Millennium Partners, L.P. and Riverview Group, L.L.C. |
| 21X | Subsidiaries of the Registrant. |
| 23.1 | Consent of Ernst & Young LLP, Independent Auditors. |
| 31.1 | Certification Pursuant to Securities Exchange Act Rule 13(a)-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (Martin McGlynn, Chief Executive Officer). |
| 31.2 | Certification Pursuant to Securities Exchange Act Rule 13(a)-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (George Koshy, Acting Chief Financial Officer). |
| 32.1 | Certification Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Martin McGlynn, Chief Executive Officer) |
| 32.2 | Certification Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (George Koshy, Acting Chief Financial Officer) |
| 99 | Cautionary Factors Relevant to Forward-Looking Information |
| 99.1XX | Side Letter, dated March 17, 2001, between the Company and Oleh S. Hnatiuk regarding NeuroSpheres License Agreement, dated October 30, 2000. |

++ Previously filed with the Commission as Exhibits to, and incorporated herein by reference to, the Registrant s Registration Statement on Form S-1, File No. 33-85494.

Table of Contents

| | |
|---|---|
| +++ | Previously filed with the Commission as Exhibits to, and incorporated herein by reference to, the Registrant s Registration Statement on Form S-3, File No. 33-97272. |
| ++++ | Previously filed with the Commission as Exhibits to, and incorporated herein by reference to, the Registrant s Registration Statement on Form S-1, File No. 33-91228. |
| * | Previously filed with the Commission as Exhibits to, and incorporated herein by reference to, Registration Statement on Form S-1, File No. 33-45739. |
| # | Previously filed with the Commission as Exhibits to, and incorporated herein by reference to, the Registrant s Annual Report on Form 10-K for fiscal year ended December 31, 1992 and filed March 30, 1993. |
| ** | 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. |
| ## | Previously filed with the Commission as Exhibits to, and incorporated herein by reference to, the Registrant s Quarterly Report on Form 10-Q for the quarter ended March 31, 1994 and filed on May 14, 1994. |
| + | Previously filed with the Commission as Exhibits to, and incorporated herein by reference to, the Registrant s Annual Report on Form 10-K for the fiscal year ended December 31, 1993 and filed on March 30, 1994. |
| ! | Previously filed with the Commission as an Exhibit to and incorporated by reference to, the Registrant s Quarterly Report on Form 10-Q for the quarter ended March 31, 1996. |
| !! | Previously filed with the Commission as an Exhibit to and incorporated by reference to, the Registrant s Quarterly Report on Form 10-Q for the quarter ended September 30, 1996. |
| !!! | Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrant s Annual Report on Form 10-K for the fiscal year ended December 31, 1996 and filed on March 31, 1997. |
| !!!! | Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrant s Annual Report on Form 10-K for the fiscal year ended December 31, 1995. |
| *** | Previously filed with the Commission as Exhibits to, and incorporated herein by reference to, the Registrant s Quarterly Report on Form 10-Q for the quarter ended September 30, 1997 and filed on November 14, 1997. |

| | |
|---|---|
| **** | Previously filed with the Commission as Exhibits to, and incorporated herein by reference to, the Registrant s Registration Statement on Form S-8, File No. 333-37313. |
| ### | Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrant s annual report on Form 10-K for |

Table of Contents

the fiscal year ended December 31, 1997 and filed on March 30, 1998.

{*} Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrant s current report on Form 8-K filed on August 3, 1998.

{**} Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrant s current report on Form 8-K filed on December 7, 2001.

$ Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrant s annual report on Form 10-K for the fiscal year ended December 31, 1998 and filed on March 31, 1999.

$$ 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 January 14, 2000.

$$$ Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrant s definitive proxy statement filed May 1, 2001.

X Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrant s Registration Statement on Form S-1, File No. 333-45496.

XX Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrant s Annual Report on Form 10-K for the fiscal year ended December 31, 2000 and filed on April 2, 2001.

XXX Previously filed with the Commission as an Exhibit to, and incorporate herein by reference to, the Registrant s Registration Statement filed on Form S-1 as amended to Form S-3, File No. 333-61726.

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.

(b) CURRENT REPORTS ON FORM 8-K.

A current report on Form 8-K was filed by the Registrant on December 7, 2001. In that report, under Item 5, the Registrant reported: (a) the cancellation of all adjustable warrants previously issued to Millennium Partners, L.P. in connection with an exercise of the warrants by Millennium, and (b) the issuance of preferred stock and a warrant to purchase common stock to a wholly owned subsidiary of Millennium.

Table of Contents

**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<br>Martin McGlynn | President and Chief Executive Officer and Director (principal executive officer) | April 5, 2004 |
| /s/ GEORGE KOSHY<br>George Koshy | Controller and Acting Chief Financial Officer (principal accounting officer) | April 5, 2004 |
| /s/ RICARDO B. LEVY, Ph.D.<br>Ricardo B. Levy, Ph.D. | Director | April 5, 2004 |
| /s/ ROGER PERLMUTTER, M.D.<br>Roger Perlmutter, M.D. | Director | April 5, 2004 |
| /s/ JOHN J. SCHWARTZ, Ph.D.<br>John J. Schwartz, Ph.D. | Director, Chairman of the Board | April 5, 2004 |
| /s/ IRVING L. WEISSMAN, M.D.<br>Irving L. Weissman, M.D. | Director | April 5, 2004 |
| /s/ Eric Bjerkholt | Director | April 5, 2004 |

Eric Bjerkholt

Table of Contents

## 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. |
| 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. |

Table of Contents

| 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. |
| 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. |
| 10.14++ | Lease Agreement between the Registrant and Rhode Island Industrial Facilities Corporation, dated as of August 1, 1992. |
| 10.15++ | First Amendment to Lease Agreement between Registrant and The Rhode Island Industrial Facilities Corporation dated as of September 15, 1994. |
| 10.17**++++ | Development, Marketing and License Agreement, dated as |

Table of Contents

| EXHIBIT NO. | TITLE OR DESCRIPTION |
|---|---|
| | of March 30, 1995 between Registrant and Astra AB. |
| 10.18++++ | Form of Unit Purchase Agreement to be executed by the purchasers of the Common Stock and Warrants offered in April 1995. |
| 10.19+++ | Form of Common Stock Purchase Agreement to be executed among the Registrant and certain purchasers of the Registrant s Common Stock. |
| 10.22### | Lease Agreement dated as of November 21, 1997 by and between Hub RI Properties Trust, as Landlord, and CytoTherapeutics, Inc., as Tenant. |
| 10.24!! | CTI individual stockholders option agreement dated as of July 10, 1996 among the Company and the individuals listed therein. |
| 10.25!! | CTI Valoria option agreement dated of July 10, 1996 between the Company and the Societe Financiere Valoria SA. |
| 10.26!!! | Term Loan Agreement dated as of October 22, 1996 between The First National Bank of Boston and the Registrant. |
| 10.27*** | Agreement and Plan of Merger dated as of August 13, 1997 among StemCells, Inc., the Registrant and CTI Acquisition Corp. |
| 10.28*** | Consulting Agreement dated as of September 25, 1997 between Dr. Irving Weissman and the Registrant. |
| 10.29### | Letter Agreement among each of Dr. Irving Weissman and Dr. Fred H. Gage and the Registrant. |
| 10.32**** | StemCells, Inc. 1996 Stock Option Plan. |
| 10.33**** | 1997 StemCells Research Stock Option Plan (the 1997 Plan ) |
| 10.34**** | Form of Performance-Based Incentive Option Agreement issued under the 1997 Plan. |
| 10.35### | Employment Agreement dated as of September 25, 1997 between Dr. Richard M. Rose and the Registrant. |
| 10.38{*} | Rights Agreement, dated as of July 27, 1998 between Bank Boston, N.A. as Rights Agent and the Registrant. |
| 10.40$** | Consulting Services Agreement dated as of July 27, 1998, as amended December 19, 1998 between Dr. John J. Schwartz and the Registrant. |

Table of Contents

| EXHIBIT NO. | TITLE OR DESCRIPTION |
|---|---|
| 10.41$** | Letter Agreement dated as of December 19, 1998 between John J. Schwartz and the Registrant. |
| 10.43$** | License Agreement dated as of October 27, 1998 between The Scripps Research Institute and the Registrant. |
| 10.45$$** | Purchase Agreement and License Agreement dated as of December 29, 1999 between Neurotech S.A. and the Registrant. |
| 10.46++++** | License Agreement dated as of June 1999 between The Scripps Research Institute and the Registrant. |
| 10.47++++** | License Agreement dated as of June 1999 between The Scripps Research Institute and the Registrant. |
| 10.48X | Form of Registration Rights Agreement dated as of July 31, 2000 between the Registrant and investors. |
| 10.49X | Subscription Agreement dated as of July 31, 2000 between the Registrant and Millennium Partners, L.P. |
| 10.50XXX | Common Stock Purchase Agreement, dated as of May 10, 2001, between the Registrant and Sativum Investments Limited. |
| 10.51XXX | Escrow Agreement, dated as of May 10, 2001, among the Registrant, Sativum Investments Limited and Epstein, Becker & Green, P.C. |
| 10.52XX | License Agreement, dated as of October 30, 2000, between the Registrant and NeuroSpheres Ltd. |
| 10.53XX | Letter Agreement, dated January 2, 2001, between the Registrant and Martin McGlynn |
| 10.54XX | Lease, dated February 1, 2001, between the Board of Trustees of Stanford University and the Registrant. |
| 10.55XXX | Registration Rights Agreement, dated as of June 21, 2001, by and between the Registrant and Millennium Partners, L.P. |
| 10.56XXX | Subscription Agreement, dated as of June 21, 2001, by and between the Registrant and Millennium Partners, L.P. |
| 10.57$$$ | 2001 Equity Incentive Plan |
| 10.58{**} | Subscription Agreement, dated as of December 4, 2001 between the Registrant and Riverview Group, L.L.C. |

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| 10.59{**} | Registration Rights Agreement, dated as of December 4, 2001 between the Registrant and Riverview Group, L.L.C. |
| 10.60{**} | Agreement dated as of December 4, 2001 between the |

Table of Contents

| EXHIBIT NO. | TITLE OR DESCRIPTION |
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| | Registrant and Millennium Partners, L.P. |
| 10.61{**} | Agreement dated as of December 4, 2001 among the Registrant, Millennium Partners, L.P. and Riverview Group, L.L.C. |
| 21X | Subsidiaries of the Registrant. |
| 23.1 | Consent of Ernst & Young LLP, Independent Auditors. |
| 31.1 | Certification Pursuant to Securities Exchange Act Rule 13(a)-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (Martin McGlynn, Chief Executive Officer). |
| 31.2 | Certification Pursuant to Securities Exchange Act Rule 13(a)-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (George Koshy, Acting Chief Financial Officer). |
| 32.1 | Certification Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Martin McGlynn, Chief Executive Officer) |
| 32.2 | Certification Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (George Koshy, Acting Chief Financial Officer) |
| 99 | Cautionary Factors Relevant to Forward-Looking Information |
| 99.1XX | Side Letter, dated March 17, 2001, between the Company and Oleh S. Hnatiuk regarding NeuroSpheres License Agreement, dated October 30, 2000. |
| ++ | Previously filed with the Commission as Exhibits to, and incorporated herein by reference to, the Registrant s Registration Statement on Form S-1, File No. 33-85494. |
| +++ | Previously filed with the Commission as Exhibits to, and incorporated herein by reference to, the Registrant s Registration Statement on Form S-3, File No. 33-97272. |
| ++++ | Previously filed with the Commission as Exhibits to, and incorporated herein by reference to, the Registrant s Registration Statement on Form S-1, File No. 33-91228. |

**Table of Contents**

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| * | Previously filed with the Commission as Exhibits to, and incorporated herein by reference to, Registration Statement on Form S-1, File No. 33-45739. |
| # | Previously filed with the Commission as Exhibits to, and incorporated herein by reference to, the Registrant s Annual Report on Form 10-K for fiscal year ended December 31, 1992 and filed March 30, 1993. |
| ** | 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. |
| ## | Previously filed with the Commission as Exhibits to, and incorporated herein by reference to, the Registrant s Quarterly Report on Form 10-Q for the quarter ended March 31, 1994 and filed on May 14, 1994. |
| + | Previously filed with the Commission as Exhibits to, and incorporated herein by reference to, the Registrant s Annual Report on Form 10-K for the fiscal year ended December 31, 1993 and filed on March 30, 1994. |
| ! | Previously filed with the Commission as an Exhibit to and incorporated by reference to, the Registrant s Quarterly Report on Form 10-Q for the quarter ended March 31, 1996. |
| !! | Previously filed with the Commission as an Exhibit to and incorporated by reference to, the Registrant s Quarterly Report on Form 10-Q for the quarter ended September 30, 1996. |
| !!! | Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrant s Annual Report on Form 10-K for the fiscal year ended December 31, 1996 and filed on March 31, 1997. |
| !!!! | Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrant s Annual Report on Form 10-K for the fiscal year ended December 31, 1995. |
| *** | Previously filed with the Commission as Exhibits to, and incorporated herein by reference to, the Registrant s Quarterly Report on Form 10-Q for the quarter ended September 30, 1997 and filed on November 14, 1997. |
| **** | Previously filed with the Commission as Exhibits to, and incorporated herein by reference to, the Registrant s Registration Statement on Form S-8, File No. 333-37313. |
| ### | Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrant s annual report on Form 10-K for the fiscal year ended December 31, 1997 and filed on March 30, 1998. |
| {*} | Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrant s current report on Form 8-K filed on August 3, 1998. |

**Table of Contents**

{**} Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrant s current report on Form 8-K filed on December 7, 2001.

$ Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrant s annual report on Form 10-K for the fiscal year ended December 31, 1998 and filed on March 31, 1999.

$$ 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 January 14, 2000.

$$$ Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrant s definitive proxy statement filed May 1, 2001.

X Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrant s Registration Statement on Form S-1, File No. 333-45496.

XX Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrant s Annual Report on Form 10-K for the fiscal year ended December 31, 2000 and filed on April 2, 2001.

XXX Previously filed with the Commission as an Exhibit to, and incorporate herein by reference to, the Registrant s Registration Statement filed on Form S-1 as amended to Form S-3, File No. 333-61726.

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.