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AMENDMENT NO. 1
TO
FORM 10-K
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

/X/ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

FOR THE FISCAL YEAR ENDED DECEMBER 31, 1999
OR

/ / TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

COMMISSION FILE NUMBER 0-19871

STEMCELLS, INC.
(FORMERLY CYTOTHERAPEUTICS, 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.)

525 DEL REY AVENUE, SUITE C, SUNNYVALE, CA 94086
(Address of principal offices) (zip code)

701 GEORGE WASHINGTON HIGHWAY, LINCOLN, RI 02865
(Former address of principal executive offices) (zip code)

Registrant's telephone number, including area code: (408) 731-8670

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

Securities registered pursuant to Section 12(g) of the Act:
COMMON STOCK, $.01 PAR VALUE

JUNIOR PREFERRED STOCK PURCHASE RIGHTS
Title of class

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes /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. / /

Aggregate market value of Common Stock held by non-affiliates at March 20, 2000: $140,213,189.22. Inclusion of shares held beneficially by any person should not be construed to indicate that such person possesses the power, direct or indirect, to direct or cause the direction of management policies of the registrant, or that such person is controlled by or under common control with the Registrant. Common stock outstanding at March 20, 2000: 19,506,565 shares.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's Definitive Proxy Statement for its 2000 Annual Meeting of Shareholders are incorporated by reference into Part III of this Report.

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FORWARD LOOKING STATEMENTS

This prospectus includes forward-looking statements. You can identify these statements by forward-looking words such as "may," "will," "possibly," "expect," "anticipate," "project," "believe," "estimate" and "continue" or similar words. You should read statements that contain these words carefully because they discuss our future expectations, contain projections of our future results of operations or of our financial condition, or state other "forward-looking" information. We believe that it is important to communicate our future expectations to our investors. However, there will be events in the future that we have not been able to accurately predict or control and that may cause our actual results to differ materially from those discussed. For example, contaminations at our facilities, changes in the pharmaceutical or biotechnology industries, competition and changes in government regulations or general economic or market conditions could all have significant effects on our results. These factors should be considered carefully and readers should not place undue reliance on our forward-looking statements. Before you invest in our common stock, you should be aware that the occurrence of the events described in the "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business" sections and elsewhere in this prospectus could harm our business, operating results and financial condition. All forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the cautionary statements and risk factors contained throughout this prospectus. We are under no duty to update any of the forward-looking statements after the date of this prospectus or to conform these statements to actual results.

SEE "CAUTIONARY FACTORS RELEVANT TO FORWARD-LOOKING INFORMATION" FILED HEREWITH AS EXHIBIT 99 AND INCORPORATED HEREIN BY REFERENCE.

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 produce one or more types of mature cells within an organ.

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 Centers for Disease Control, the Family Caregiver's Alliance and the Spinal Cord Injury Information Network, that these conditions affect more than 18 million people in the United States and account for more than $150 billion annually in health care costs.

Our proposed therapies are based on the transplanting of healthy human stem and progenitor cells to repair or replace central nervous system, pancreas or liver tissue that has been damaged or lost as a result of disease or injury, potentially returning patients to productive lives and significantly reducing health care costs. We believe that we have achieved significant progress in research regarding stem cells of the central nervous system through the advances we have made in the isolation, purification and transplantation of central nervous system stem and progenitor cells. We have also made advances in our research programs to discover the stem cells of the pancreas and of the liver. We have established an intellectual property position in all three areas of our stem cell research--the central nervous system, the pancreas and the liver--by patenting our discoveries and entering into exclusive 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.

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, Alzheimer's disease and amyotrophic lateral sclerosis.

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 quantities or for the duration required to cure the degenerative condition.

Cells, however, do this naturally. As a result, investigators have considered replacing failing cells that are no longer producing the needed substances or proteins by implanting stem or progenitor cells capable of regenerating the cell that the degenerative condition has damaged or destroyed. Where there has been irreversible tissue damage or organ failure, transplantation of stem cells offers the possibility of generating new and healthy tissue, thus potentially restoring the organ function and the patient's health.

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 developed and demonstrated a process, based on a proprietary IN VITRO culture system in chemically defined media, that 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. More recently, 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. 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.

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,

- drug discovery and screening,

- gene discovery and use, and

- diagnostics.

We will be pursuing key alliances in these areas.

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 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.

More recently, we announced the results of a new 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 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.

Neurological disorders such as Parkinson's disease, epilepsy, Alzheimer's disease, and the side effects of stroke, 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 these diseases.

We continue to advance our research programs to discover the islet stem cell in the human pancreas and the liver stem cell. Islet cells are the cells that produce insulin, so islet stem cells may be useful in the treatment of Type 1 diabetes and those cases of Type 2 diabetes where insulin secretion is defective. Liver stem cells may be useful in the treatment of diseases such as hepatitis, cirrhosis of the liver and liver cancer.

EXPECTED ADVANTAGES OF OUR STEM CELL TECHNOLOGY

NO OTHER TREATMENT

To the best of 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 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.

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 prospectus. 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, degenerated retinas 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 - Demonstrated the ability of neurosphere-initiating stem cells from human brain - 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.
PANCREAS ISLET STEM CELL	RESEARCH
Repair or replace damaged pancreas islet tissue	- Identified markers on the surface of cells to identify, isolate and culture islet stem cells of the pancreas - Commenced small animal testing
LIVER STEM CELL	RESEARCH
Repair or replace damaged liver tissue including tissue resulting from certain metabolic genetic diseases	- Demonstrated the production of hepatocytes from purified mouse hematopoietic stem cells - Identified IN VITRO culture assay for growth of human bipotent liver progenitor cells that can produce both bile duct and hepatocytes - Showed that the in vitro culture of human bipotent liver cells can also grow human hepatitis virus

(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, among others, Irving L. Weissman, M.D., of Stanford University, Fred H. Gage, Ph.D., of The Salk Institute and David Anderson, Ph.D., of the California Institute of Technology.

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."

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 has shown 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.

In 1998, we 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. Also in 1998, our researchers 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. We are expanding our preclinical efforts toward the goal of selecting the proper indications to pursue.

In December 1998, we announced that the US Patent and Trademark Office had 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.

In October 1999, the US Patent and Trademark Office granted patent number 5,968,829 entitled "Human CNS Neural Stem Cells," covering our composition of matter patent for human CNS stem cells, and also allowed a separate patent application for our media for culturing human CNS stem cells.

Also in 1999, we announced the filing of a US patent application covering 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. In November 1999, we announced the study's first results: Our researchers, by using our proprietary markers on the surface of the cell, had 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 is 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.

In January 2000, we reported what we regard as an even more important result: In long term animal studies, our researchers were able to take these purified and expanded stem cells and transplant them into normal mouse brain hosts, where they take hold and grow into neurons and glial cells.

During the course of the 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.

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, Huntington's and Alzheimer's disease. These conditions affect more than

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 cell cultures might be genetically modified to produce those proteins. The 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.

PANCREAS STEM CELLS DISCOVERY RESEARCH PROGRAMS

Our discovery program directed to the identification, isolation and culturing of the pancreas stem and progenitor cells is currently being conducted by Nora Sarvetnick, Ph.D., of The Scripps Research Institute, in collaboration with some of our senior researchers.

According to diabetes and juvenile diabetes foundations, between 800,000 and 1.5 million Americans have Type 1 diabetes, which is often called "juvenile diabetes" and most commonly diagnosed in childhood; and 30,000 new patients are diagnosed with the disease every year. It is a costly, serious, lifelong condition, requiring constant attention and insulin injections every day for survival.

About 15 million other people in the United States have Type 2 diabetes mellitus, which is also a chronic and potentially fatal condition; and more than 700,000 new patients are diagnosed annually.

In 1998, we obtained an exclusive, worldwide license from The Scripps Research Institute to novel technology developed by Dr. Sarvetnick which may facilitate the identification and isolation of pancreas stem and progenitor cells by using a mouse model that continuously regenerates the pancreas. 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.

In 1999, advances in the research sponsored by us resulted in our obtaining additional exclusive, worldwide licenses from The Scripps Research Institute 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. In collaboration with Dr. Sarvetnick, we continue to advance the discovery program directed at the identification, isolation and culturing of pancreas stem and progenitor cells utilizing this technology.

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 a worldwide exclusive license to a novel mouse model of liver failure for evaluating cell transplantation developed by Dr. Grompe.

Approximately 1 in 10 Americans suffers from diseases and disorders of the liver for which there are currently no effective, long-term treatments.

In 1998, our researchers continued to advance methods for establishing enriched cell populations suitable for transplantation in preclinical animal models. We are focused on discovering and utilizing our proprietary methods to identify, isolate and culture liver stem and progenitor cells and to evaluate these cells in preclinical animal models.

In 1999, our researchers 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.

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.

WIND-DOWN OF ENCAPSULATED CELL THERAPY RESEARCH AND DEVELOPMENT PROGRAMS

Until mid-1999, we engaged in research and development in encapsulated cell therapy technology, or ECT, 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.

Consequently, in July 1999, we announced plans for 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 reduced our workforce by approximately 68 full-time employees who had been focused on ECT programs, wound down our research and manufacturing operations in Lincoln, Rhode Island, and relocated our remaining research and development activities, and our corporate headquarters, to the facilities of our wholly owned subsidiary, StemCells California, Inc., in Sunnyvale, California. We are actively seeking to sublease, assign or sell our interest in our former corporate headquarters building and our pilot manufacturing and cell processing facility in Rhode Island.

In December 1999 we sold our intellectual property assets related to our ECT to Neurotech S.A., a privately held French company, in exchange for a payment of $3 million, royalties on future product sales, and a portion of certain revenues Neurotech may in the future receive from third parties. We retained 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.

In a related development, by mutual consent we and the Advanced Technology Program of the National Institute of Standards and Technology terminated two grants previously awarded to us for our encapsulated cell therapy and stem cell-related research. The encapsulated cell therapy grant was obviated by the sale of the technology to Neurotech. The funding agency has invited us to resubmit a proposal consistent with the new directions we are taking in our research and development of our platform of stem cell technologies.

SUBSIDIARY

STEMCELLS CALIFORNIA, INC.

On September 26, 1997, we acquired by merger StemCells, Inc. (now 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 the California corporation, became a member of our board of directors. We, as the sole stockholder of our subsidiary, voted on February 23, 2000, to amend its Certificate of Incorporation to change its name to StemCells California, Inc.

CORPORATE INVESTMENT

In July 1996, we, together with certain founding scientists, established Modex Therapeutics SA, 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. We now own 126,193 shares, or approximately 9%, of Modex's equity, subject to a lockup until December 23, 2000. The closing market price of Modex stock on the Swiss Neue Market exchange on October 31, 2000, was 329.5 Swiss Francs, or approximately $183, per share.

LICENSE AGREEMENTS AND SPONSORED RESEARCH 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.

ASTRAZENECA PLC

In March 1995, we signed a collaborative research and development agreement with AstraZeneca plc for the development and marketing of certain encapsulated-cell products to treat pain. Under the agreement, we conducted research and development and received approximately $42 million, including research and development funding, through June 1999 when, as noted above (SEE WIND-DOWN OF ENCAPSULATED CELL TECHNOLOGY RESEARCH AND DEVELOPMENT PROGRAM), AstraZeneca exercised its right to terminate the agreement. (SEE ALSO LIQUIDITY AND CAPITAL RESOURCES UNDER MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS AND NOTE 17--"RESEARCH AGREEMENTS" TO THE ACCOMPANYING FINANCIAL STATEMENTS.)

GENENTECH, INC.

In November 1996, we signed collaborative development and licensing agreements with Genentech relating to the development of products using the Company's ECT technology to deliver certain of Genentech's proprietary growth factors to treat Parkinson's disease, Huntington's disease and amyotrophic lateral sclerosis.

Under the terms of the agreement for Parkinson's disease, Genentech had the right, at its discretion, to terminate the program at specified milestones. On May 21, 1998, Genentech exercised its right to

terminate the Parkinson's collaboration. Pursuant to the terms of the agreement, Genentech demanded that we redeem certain shares of the Company's redeemable common stock held by them for approximately $3.1 million, at a price of $10.01 per share. This amount, per the agreement, was equal to the funds invested by Genentech to acquire such stock less the amount we expended on the terminated program. In March 2000, we announced a settlement of this claim at no cost to us, and also terminated the Huntington's disease and ALS agreements. (FOR FURTHER DETAILS AND INFORMATION REGARDING THIS SETTLEMENT, SEE LIQUIDITY AND CAPITAL RESOURCES UNDER MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.)

STATE OF RHODE ISLAND

In 1989 we entered into an agreement with the Rhode Island Partnership for Science and Technology, or RIPSAT, for reimbursement of $1,172,000 for certain research activities we funded at Brown University. Under the terms of this grant we were obligated to pay royalties ranging from three to five percent of revenues from products developed under the agreement, to a maximum of $1,758,000. In July 1999, when we announced our plans to terminate ECT research, wind down operations in Rhode Island and relocate research activities and corporate headquarters to Sunnyvale, California, RIPSAT alleged that we were in default under this funding agreement. While we believed that we were not in default, in March 2000, we entered into a settlement of the claim. (FOR FURTHER DETAILS AND INFORMATION REGARDING THIS SETTLEMENT, SEE LIQUIDITY AND CAPITAL RESOURCES UNDER MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.)

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 31, 2000, under which we 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. We will make up-front payments to NeuroSpheres of 65,000 shares of our common stock and $50,000, and 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. 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 without curing our obligations under the agreement or if we declare bankruptcy. We would have a security interest in the licensed technology in the event that NeuroSpheres declares bankruptcy.

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.

SPONSORED RESEARCH AGREEMENTS

When we decided to abandon further research and development of our ECT technology in July 1999, we terminated our academic collaborations with Brown University and Dr. Patrick Aebischer at the Centre Hospitalier Universitaire Vaudois in Switzerland. Research and development expenses paid in connection with these collaborations aggregated approximately $156,600, $701,000 and $1,326,000 for the years ended December 31, 1999, 1998, and 1997, respectively.

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. We paid Scripps and Oregon respectively approximately $77,000 and $28,000 in 1997, $307,000 and $251,000 in 1998, and $309,000 and $172,000 in 1999 under these agreements.

Our research agreement with Scripps expires on November 14, 2000 and we are negotiating with Scripps to extend the term of this agreement or to enter into a new agreement. As of the date of this report, we have not yet completed our negotiations with Scripps and we cannot give any assurance that our negotiations will be successful. If we are unable to extend the term of this agreement, we will have to find a replacement to perform this research or we will have to perform this research ourselves. In either case, we may experience delay and additional expense in connection with this research effort. Our license agreements with Scripps 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 without curing our obligations under the agreement 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 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 the California Institute of Technology. Either party can terminate these license agreements upon a material breach by the other party. We paid $10,000 to the California Institute of Technology upon execution of the license agreements, and 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.

MANUFACTURING

The keys to successful commercialization of brain stem and progenitor cells are efficacy, safety, consistency of the product, and economy of the process. We expect to address these issues by appropriate testing and banking representative vials of large-scale cultures. Commercial production is expected to involve expansion of banked cells and packaging them in appropriate containers after formulating the cells in an effective carrier. The carrier may also be used to improve the stability and acceptance of the stem cells or their progeny. Because of the early stage of our stem and progenitor cell programs, all of the issues that will affect manufacture of stem and progenitor cell products are not yet clear.

MARKETING

We expect to market and sell our products primarily through co-marketing, licensing or other arrangements with third parties. There are a number of substantial companies with existing distribution channels and large marketing resources who are well equipped to market and sell our products. It is our intent to have the marketing of our products undertaken by such partners, although we may seek to retain limited marketing rights in specific narrow markets where the product may be addressed by a specialty or niche sales force.

PATENTS, PROPRIETARY RIGHTS AND LICENSES

We believe that proprietary protection of our inventions will be of major importance to our future business. We have an aggressive program of vigorously seeking and protecting our intellectual property which we believe might be useful in connection with our products. 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 nineteen issued U.S. patents, six of which have issued within the last year. An additional thirteen patent applications are pending, one of which has been allowed.

We own or have filed patent applications which have been published for the following U.S. patents: Patent Number 5,968,829 (Human CNS neural stem cells); Patent Number 6,103,530 (Human CNS neural stem cells--culture media); Application Number WO 99/11758 (Cultures of human CNS neural stem cells); and Application Number WO 00/36091 (An animal model for identifying a common stem/ progenitor to liver cells and pancreatic cells).

We have licensed the following patents or pending patent applications from Neurospheres Holdings Ltd.: Patent Number 5,851,832 (In vitro proliferation); Patent Number 5,750,376 (In vitro genetic modification); Patent Number 5,981,165 (In vitro production of dopaminergic cells from mammalian central nervous system multipotent stem cell compositions); Patent Number 6,093,531 (Generation of hematopoietic cells from 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); and Application Number WO 96/15226 (In vitro production of dopaminergic cells from mammalian central nervous system multipotent stem cell composition).

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

We have licensed the following patents or pending patent applications from the California Institute of Technology: Patent Number 5,629,159 (Immortalization and disimmortalization of cells); Application Number WO 96/40877 (Immortalization and disimmortalization of cells); Patent Number 5,935,811 (Neuron restrictive silencer factor proteins); Application Number WO 96/27665 (Neuron restrictive

silencer factor proteins); Patent Number 5,589,376 (Mammalian neural crest stem cells); Patent Number 5,824,489 (Methods for isolating mammalian multipotent neural crest stem cells); Application Number WO 94/02593 (Mammalian neural crest stem cells); Patent Number 5,654,183 (Genetically engineered mammalian neural crest stem cells); Patent Number 5,928,947 (Mammalian multipotent neural crest stem cells); Patent Number 5,693,482 (In vitro neural crest stem cell assay); 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)); Patent Number 5,672,499 (Methods for immortalizing multipotent neural crest stem cells); Patent Number 5,849,553 (Immortalizing and disimmortalizing multipotent neural crest stem cells); and Patent Number 6,033,906 (Differentiating mammalian neural stem cells to glial cells using neuregulins).

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

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

We have obtained rights from universities and research institutions to technologies, processes and compounds that we believe may be important to the development of our products. These agreements typically require us to pay license fees, meet certain diligence obligations and, upon commercial introduction of certain products, pay royalties. These include exclusive license agreements with NeuroSpheres, The Scripps Institute, the California Institute of Technology and the Oregon Health Sciences University, to certain patents and know-how regarding present and certain future developments in CNS and pancreas stem cells.

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 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.

Once our products are developed and receive regulatory approval, they must then compete for market acceptance and market share. For certain of our potential products, an important success factor will be the timing of market introduction of competitive products. This is a function of the relative speed with which we and our competitors can develop products, complete the clinical testing and approval processes, and supply commercial quantities of a product to market. These competitive products may also impact the timing of clinical testing and approval processes by limiting the number of clinical investigators and patients available to test our potential products.

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

GOVERNMENT REGULATION

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

In the United States, pharmaceuticals, biologicals and medical devices are subject to rigorous Food and Drug Administration, or FDA, regulation. The Federal Food, Drug and Cosmetic Act, as amended, and the Public Health Service Act, as amended, the regulations promulgated thereunder, and other Federal and state statutes and regulations govern, among other things, the testing, manufacture, safety, efficacy, labeling, storage, export, record keeping, approval, marketing, advertising and promotion of our potential products.

Product development and approval within this regulatory framework takes a number of years and involves significant uncertainty combined with the expenditure of substantial resources. In addition, the federal, state, and other jurisdictions have restrictions on the use of fetal tissue.

FDA APPROVAL

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

STEPS	CONSIDERATIONS
1. Preclinical laboratory and animal tests	Preclinical tests include laboratory evaluation of the product and animal studies in specific disease models to assess the potential safety and efficacy of the product and our formulation as well as the quality and consistency of the manufacturing process.
2. Submission to the FDA of an application for an Investigational New Drug Exemption, or IND, which must become effective before U.S. human clinical trials may commence	The results of the preclinical tests are submitted to the FDA as part of an IND, and the IND becomes effective 30 days following its receipt by the FDA, as long as there are no questions, requests for delay or objections from the FDA.

3. Adequate and well-controlled human clinical trials to establish the safety and efficacy of the product	Clinical trials involve the evaluation of the product in healthy volunteers or, as may be the case with our potential products, in a small number of patients under the supervision of a qualified physician. Clinical trials are conducted in accordance with protocols that detail the objectives of the study, the parameters to be used to monitor safety and the efficacy criteria to be evaluated. Any product administered in a U.S. clinical trial must be manufactured in accordance with clinical Good Manufacturing Practices, or cGMP, determined by the FDA. Each protocol is submitted to the FDA as part of the IND. The protocol for each clinical study must be approved by an independent Institutional Review Board, or IRB, at the institution at which the study is conducted and the informed consent of all participants must be obtained. The IRB will consider, among other things, the existing information on the product, ethical factors, the safety of human subjects, the potential benefits of the therapy and the possible liability of the institution. Clinical development is traditionally conducted in three sequential phases, which may overlap: - In Phase I, products are typically introduced into healthy human subjects or into selected patient populations to test for adverse reactions, dosage tolerance, absorption and distribution, metabolism, excretion and clinical pharmacology. - Phase II involves studies in a limited patient population to (i) determine the efficacy of the product for specific targeted indications and populations, (ii) determine optimal dosage and dosage tolerance and (iii) identify possible adverse effects and safety risks. When a dose is chosen and a candidate product is found to be effective and to have an acceptable safety profile in Phase II evaluations, Phase III trials begin. - Phase III trials are undertaken to conclusively demonstrate clinical efficacy and to test further for safety within an expanded patient population, generally at multiple study sites. The FDA continually reviews the clinical trial plans and results and may suggest changes or may require discontinuance of the trials at any time if significant safety issues arise.
4. Submission to the FDA of marketing authorization applications	The results of the preclinical studies and clinical studies are submitted to the FDA in the form of marketing approval authorization applications.

5. FDA approval of the application(s) prior to any commercial sale or shipment of the drug. Biologic product manufacturing establishments located in certain states also may be subject to separate regulatory and licensing requirement	The testing and approval process will require substantial time, effort and expense. The time for approval is affected by a number of factors, including relative risks and benefits demonstrated in clinical trials, the availability of alternative treatments and the severity of the disease. Additional animal studies or clinical trials may be requested during the FDA review period which might add to that time.

After FDA approval for the initial indications and requisite approval of the manufacturing facility, 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 cGMP requirement. Even after product licensure approval, the manufacturer must comply with cGMP on a continuing basis, and what constitutes cGMP may change as the state of the art of manufacturing changes. Domestic manufacturing facilities are subject to regular FDA inspections for cGMP compliance which are normally held at least every two years. Foreign manufacturing facilities are subject to periodic FDA inspections or inspections by the foreign regulatory authorities with reciprocal inspection agreements with the FDA. Domestic manufacturing facilities may also be subject to inspection by foreign authorities.

ORPHAN DRUG ACT

The Orphan Drug Act provides incentives to drug manufacturers to develop and manufacture drugs for the treatment of diseases or conditions that affect fewer than 200,000 individuals in the United States. Orphan drug status can also be sought for treatments for diseases or conditions that affect more than 200,000 individuals in the United States if the sponsor does not realistically anticipate its product becoming profitable from sales in the United States. We may apply for orphan drug status for certain of our therapies.

Under the Orphan Drug Act, a manufacturer of a designated orphan product can seek tax benefits, and the holder of the first FDA approval of a designated orphan product will be granted a seven-year period of marketing exclusivity in the United States for that product for the orphan indication. While the marketing exclusivity of an orphan drug would prevent other sponsors from obtaining approval of the same compound for the same indication, it would not prevent other types of products from being approved for the same use including, in some cases, slight variations on the originally designated orphan product.

PROPOSED FDA REGULATIONS

Proposed regulations of the FDA and other governmental agencies would place restrictions, including disclosure requirements, on researchers who have a financial interest in the outcome of their research. Under the proposed regulations, the FDA could also apply heightened scrutiny to, or exclude the results of, studies conducted by such researchers when reviewing applications to the FDA, which contain such research. Certain of our collaborators have stock options or other equity interests in us that could subject such collaborators and us to the proposed 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. We cannot now determine the effects of that approach or what regulatory actions might be taken from it. Restrictions exist on the testing or use of cells, whether human or non-human.

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

REIMBURSEMENT AND HEALTH CARE COST CONTROL

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

The revenues and profitability of some health care-related companies have been affected by the continuing efforts of governmental and third party payers to contain or reduce the cost of health care through various means. Payers are increasingly attempting to limit both coverage and the level of reimbursement for new therapeutic products approved for marketing by the FDA, and are refusing, in some cases, to provide any coverage for uses of approved products for disease indications for which the FDA has not granted marketing approval. For example, in certain foreign markets, pricing or profitability of prescription pharmaceuticals is subject to government control. In the United States, there have been a number of Federal and state proposals to implement government control over health care costs.

EMPLOYEES

As of August 15, 2000, we had twenty full-time employees, of whom five have Ph.D. degrees, as well as two half-time employees. The equivalent of fifteen 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 which would conflict with the services the member provides to us. 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. 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, Inc.

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

- 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.

ITEM 2. PROPERTIES

The Company's current research laboratories and administrative offices are located in a leased 7,950 square-foot multipurpose building housing wet labs, specialty research areas and administrative offices located in Sunnyvale, California. The facilities are leased pursuant to lease agreements expiring August 31, 2001, and we have certain renewal options. Our current facilities are expected to be sufficient to accommodate our needs at least through the end of 2000.

We continue to be contractually obligated with respect to two facilities in Lincoln, Rhode Island obtained in connection with our former encapsulated cell technology. We leased our former research laboratory and corporate headquarters building which contains 65,000 square feet of wet labs, specialty research areas and administrative offices on a fifteen-year lease agreement which expires October 2012. We also own a 21,000 square-foot pilot manufacturing facility and a 3,000 square-foot cell processing facility financed by bonds issued by the Rhode Island Industrial Facilities Corporation. We are actively seeking to sublease, assign or sell our 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 CytoTherapeutics is traded on the National Market System of NASDAQ under the Symbol STEM (formerly CTII). The quarterly ranges of high and low sales prices since January 1, 1997 are shown below:

2000	HIGH	LOW
First Quarter (through March 20, 2000).....	$20	$1 3/8

1999	HIGH	LOW
Fourth Quarter.....	$ 1 5/8	$1
Third Quarter.....	$ 2 3/8	$ 11/16
Second Quarter.....	$ 1 3/8	$ 17/32
First Quarter.....	$ 1 25/32	$1 5/32

1998	HIGH	LOW
Fourth Quarter.....	$ 2 17/32	$ 26/32
Third Quarter.....	$ 1 19/32	$ 29/32
Second Quarter.....	$ 3 7/16	$1 1/16
First Quarter.....	$ 4 3/8	$2 1/2

1997	HIGH	LOW
Fourth Quarter.....	$ 7 5/8	$3 7/16
Third Quarter.....	$ 6 1/4	$4 5/8
Second Quarter.....	$ 8 3/4	$4 3/4
First Quarter.....	$11 3/8	$7 1/2

No cash dividends have been declared on the Common Stock since the Company's inception.

As of August 15, 2000, there were approximately 249 holders of record of the Common Stock.

ITEM 6. SELECTED FINANCIAL DATA

	YEAR ENDED DECEMBER 31,				
	1999	1998	1997	1996	1995
	(IN THOUSANDS, EXCEPT PER SHARE AMOUNTS)				
STATEMENT OF OPERATIONS DATA					
Revenue from collaborative agreements	$ 5,022	$ 8,803	$ 10,617	$ 7,104	$11,761
Research and development expenses	9,991	17,659	18,604	17,130	14,730
Acquired research and development			8,344		
ECT wind-down expenses	6,048				
Net loss	(15,709)	(12,628)	(18,114)	(13,759)	(8,891)
Basic and diluted net loss per share	(0.84)	(0.69)	(1.08)	(0.89)	(0.69)
Shares used in computing basic and diluted net loss per share	18,706	18,291	16,704	15,430	12,799

	DECEMBER 31,				
	1999	1998	1997	1996	1995
	(IN THOUSANDS)				
BALANCE SHEET DATA					
Cash, cash equivalents and marketable securities	$ 4,760	$ 17,386	$ 29,050	$ 42,607	$44,192
Total assets	15,781	32,866	44,301	58,397	56,808
Long-term debt, including capitalized leases	2,937	3,762	4,108	8,223	5,441
Redeemable common stock	5,249	5,249	5,583	8,159	
Stockholders' equity	3,506	17,897	28,900	34,747	45,391

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

The following discussion of our financial condition and results of operations for the years ended December 31, 1999, 1998, and 1997 should be read in conjunction with our consolidated financial statements and their related footnotes.

The statements contained in this report, other than statements of historical fact, constitute forward-looking statements. Such statements include, without limitation, all statements as to expectation or belief and statements as to the Company's future results of operations, the progress of the Company's research and product development programs, the need for, and timing of, additional capital and capital expenditures, partnering prospects, the need for additional intellectual property rights, effects of regulations, the need for additional facilities and potential market opportunities. The Company's actual results may vary materially from those contained in such forward-looking statements because of risks to which the Company is subject, such as failure to obtain a corporate partner or partners to support the development of the Company's stem cell programs, the Company's ability to sell, assign or sublease its interest in its facilities related to its encapsulated cell technology program, risks of delays in research, development and clinical testing programs, obsolescence of the Company's technology, lack of available funding, competition from third parties, intellectual property rights of third parties, failure of the Company's collaborators to perform, regulatory constraints, litigation and other risks to which the Company is subject. See "Cautionary Factors Relevant to Forward-Looking-Information" filed herewith as Exhibit 99 and incorporated herein by reference.

RESULTS OF OPERATIONS

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. At the beginning of last year, by contrast, our corporate headquarters, most of our employees, and the main focus of our operations were primarily devoted to a different technology--encapsulated cell technology, or ECT. Since that time, we terminated a clinical trial of the ECT then in progress, we wound down our other operations relating to the ECT, we terminated the employment of those who worked on the ECT, sold the ECT and we relocated from Rhode Island to Sunnyvale, California. Comparisons with last year's results are correspondingly less meaningful than they may be under other circumstances.

We were known as CytoTherapeutics, Inc., until May 23, 2000, when we changed our name to StemCells, Inc.

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.

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, nonrecurring events, including without limitation the receipt of one-time, nonrecurring licensing payments, and the initiation or termination of

research collaborations, in addition to the winding-down of terminated research and development programs referred to above.

YEARS ENDED DECEMBER 31, 1999, 1998 AND 1997

Revenues from collaborative agreements totaled $5,022,000, $8,803,000 and $10,617,000 for the years ending December 31, 1999, 1998 and 1997, respectively. Revenues were earned primarily from a Development, Marketing and License Agreement with AstraZeneca Group plc, which we signed in March 1995. The decrease in revenues from 1998 to 1999 resulted primarily from the June 1999 termination of the AstraZeneca Agreement. 1997 revenues included a $3,000,000 milestone payment from AstraZeneca related to the Phase II clinical trials for an ECT product.

Research and development expenses totaled $9,984,000 in 1999, as compared to $17,659,000 in 1998 and $18,604,000 in 1997. The decrease of $7,668,000, or 43%, from 1998 to 1999 was primarily attributable to the wind-down of research activities relating to the ECT, precipitated by termination of the AstraZeneca agreement. The decrease of $945,000, or 5%, from 1997 to 1998 was primarily attributable to a reduction in spending on research agreements and a reduction in research and development personnel.

Acquired research and development consists of a one-time charge of $8,344,000 related to the acquisition of StemCells California, Inc., in 1997. Commercialization of this technology will require significant incremental research and development expenses over a number of years. With the recent completion of the restructuring of our research operations, we are now focused solely on the research and development of our platform of stem cell technologies, which encompasses the technology acquired upon the acquisition of StemCells California, Inc. and related technology we have developed or licensed.

General and administrative expenses were $4,927,303 for the year ended December 31, 1999, compared with $4,603,000 in 1998 and $6,158,000 in 1997. The 1999 General and Administrative expenses were positively impacted by the reduction in facility costs that were included in the wind-down ($239,000), reduction in amortization of patents and intangible assets of approximately $338,000, as well as reduced activities and related personnel costs estimated at approximately $500,000 that were not incurred. This was due to the wind-down of our ECT programs and relocation of our headquarters in October 1999. The reduction of $1,555,000, or 25%, from 1997 to 1998 was primarily attributable to a reduction in legal fees, recruiting and relocation expenses, as well as a reduction in employees.

Wind-down and relocation expenses totaled $6,047,806 for the year ended December 31, 1999; no such expenses were incurred in 1998 and 1997. These expenses relate to the wind-down of our encapsulated cell technology research and other Rhode Island operations and the transfer of our corporate headquarters to Sunnyvale, California.

They include accruals of approximately $1,554,000 for employee severance costs, $1,858,000 in losses and reserves for the write-down of related patents and fixed assets, $1,172,000 for our estimate of the costs of settlement of a 1989 funding agreement with the Rhode Island Partnership for Science and Technology, $702,000 of estimated additional carrying costs through an expected June 30, 2000 disposition of the Rhode Island facilities, and other related expenses totaling $762,000.

Interest income for the years ended December 31, 1999, 1998 and 1997 totaled $564,000, $1,254,000 and $1,931,000, respectively. The average cash and investment balances were $10,663,000, $21,795,000 and $33,343,000 in 1999, 1998 and 1997, respectively. The decrease in interest income from 1997 to 1998 to 1999 was attributable to lower average balances.

In 1999, interest expense was $335,000, compared with $472,000 in 1998 and $438,000 in 1997. The decrease from 1998 to 1999 was attributable to lower outstanding debt and capital lease balances. The increase from 1997 to 1998 was primarily attributable to capitalization of $210,000 of interest on the new facility in 1997.

In October 1997, we recognized a gain in the amount of $3,387,000 related to the sale of 50 percent of the Company's interest in Modex Therapeutics, Ltd.

The net loss in 1999, 1998 and 1997 was $15,709,000, $12,628,000, and $18,114,000, respectively. The loss per share was $0.84, $0.69 and $1.08 in 1999, 1998 and 1997, respectively. The increase from 1998 to 1999 is primarily attributable to the elimination of revenue from the AstraZeneca agreement, which was terminated in June 1999, as well as expenses related to the wind-down of our ECT research and our other Rhode Island operations, the transfer of our corporate headquarters to Sunnyvale, California and an accrual of approximately $1,172,000 for our estimate of the costs of settlement of the funding agreement with RIPSAT. The decrease from 1997 to 1998 was attributable to a one-time charge of $8,344,000 for acquired research and development related to the purchase of StemCells California, Inc. offset by the $3,387,000 gain on a partial sale of the Company's interest in Modex in 1997.

The 1999 decrease in patents of $3,229,932 from 1998 was primarily due to management's decision to wind down the ECT program and dispose of the related intellectual property. During the fourth quarter of 1999 we sold the patents related to our encapsulated cell technology to Neurotech for $3,000,000.

Accrued expenses increased by $1,584,949, primarily due to the accrual of approximately $1,172,000 for our estimate of the costs of settlement of a 1989 funding agreement with the Rhode Island Partnership for Science and Technology and $463,000 for the estimated lease payments and operating costs of the Rhode Island facilities through an expected disposal date of June 30, 2000.

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 unrestricted cash and cash equivalents totaling $4,760,000 at December 31, 1999. Cash and cash equivalents are invested in money market funds.

We also hold 126,193 shares of Modex stock, which is publicly traded on the Swiss Neue Market exchange. While our Modex stock had an estimated fair market value of $27,204,333 on September 30, 2000 (and $23,128,598 on October 31, 2000), the fair market value of our Modex stock has varied significantly since the Modex public offering and may continue to vary significantly based on increases and decreases in the reported per share price, in Swiss francs, of the Modex stock and on foreign currency exchange rates. We are prohibited under a lock-up agreement entered into at the time of Modex's public offering from selling any of our Modex shares until December 23, 2000. In addition, there is a limited trading market for Modex stock, and if we were to attempt to sell any significant portion of our Modex holdings, we would likely be able to do so only at a significant discount to the then market price, if at all.

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 technologies.

In March 1995, we signed a collaborative research and development agreement with AstraZeneca plc for the development and marketing of certain encapsulated-cell products to treat pain. AstraZeneca made an initial, nonrefundable payment of $5,000,000, included in revenue from collaborative agreements in 1995, a milestone payment of $3,000,000 in 1997 and was to remit up to an additional $13,000,000 subject to achievement of certain development milestones. Under the agreement, we were obligated to conduct certain research and development pursuant to a four-year research plan agreed upon by the parties. Over the term of the research plan, we originally expected to receive annual payments of $5 million to $7 million from AstraZeneca, which was to approximate the research and development costs we incurred under the plan. Subject to the successful development of such products and obtaining necessary regulatory approvals, AstraZeneca was obligated to conduct all clinical trials of products arising from the collaboration and to

seek approval for their sale and use. AstraZeneca had the exclusive worldwide right to market products covered by the agreement. Until the later of either the expiration of all patents included in the licensed technology or a specified fixed term, we were entitled to a royalty on the worldwide net sales of such products in return for the marketing license granted to AstraZeneca and our obligation to manufacture and supply products. AstraZeneca had the right to terminate the original agreement beginning April 1, 1998. On June 24, 1999, AstraZeneca informed us of the results of their analysis of the double-blind, placebo-controlled trial of a potential ECT product, an encapsulated bovine cell implant for the treatment of severe, chronic pain in cancer patients. AstraZeneca determined that, based on criteria it established, the results from the 85-patient trial did not meet the minimum statistical significance for efficacy established as a basis for continuing worldwide trials for the therapy. AstraZeneca therefore indicated that it did not intend to further develop the bovine cell-containing implant therapy and exercised its right to terminate the agreement. (See also Note 16 --"Research Agreements" to the Accompanying Consolidated Financial Statements.)

In the third quarter of 1999, we announced restructuring plans for the wind-down of operations relating to our ECT and to focus our resources on the research and development of our platform of proprietary stem cell technologies. We terminated approximately 68 full time employees and, in October 1999, relocated our corporate headquarters to Sunnyvale, California. We recorded $6,047,806 in wind-down expenses including employee separation and relocation costs during 1999.

On December 30, 1999 we sold our ECT and assigned our intellectual property assets in it to Neurotech S.A. for a payment of $3,000,000, royalties on future product sales, and a portion of certain Neurotech revenues from third parties. In addition, we retained certain non-exclusive rights to use ECT in combination with our proprietary stem cell technologies and in the field of vaccines for prevention and treatment of infectious diseases. We received $2,800,000 of the initial payment on January 3, 2000 with a remaining balance of $200,000 placed in escrow, to be released to us upon demonstration satisfactory to Neurotech that certain intellectual property is not subject to other claims.

As part of our restructuring of operations and relocation of corporate headquarters to Sunnyvale, California, we identified a significant amount of excess fixed assets. In December of 1999, we completed the disposition of those excess fixed assets, from which we received more than $746,000. The proceeds are being used to fund our continuing operations.

In July 1999, as a result of our decision to close our Rhode Island Facilities, the Rhode Island Partnership for Science and Technology, or RIPSAT, alleged that we were in default under a June, 1989 Funding Agreement and demanded payment of approximately $2.6 million. While we believed we were not in default under the Funding Agreement, we deemed it best to resolve the dispute without litigation, and on March 3, 2000 entered into a settlement agreement with RIPSAT, the Rhode Island Industrial Recreational Building Authority, or IRBA, and the Rhode Island Industrial Facilities Corporation, or RIIFC. We agreed to pay RIPSAT $1,172,000 in full satisfaction of all of our obligations to them under the Funding Agreement. At the same time, IRBA agreed to return to us the full amount of our debt service reserve, comprising approximately $610,000 of principal and interest relating to the bonds we had with IRBA and RIIFC. The $610,000 debt service reserve was transferred directly to RIPSAT, leaving the remainder of approximately $562,000 to be paid by us. We made this payment in March of 2000.

Our liquidity and capital resources could have also been affected by a claim by Genentech, Inc., arising out of their collaborative development and licensing agreement with us relating to the development of products for the treatment of Parkinson's disease; however, the claim was resolved with no effect on our resources. On May 21, 1998 Genentech exercised its right to terminate the Parkinson's collaboration and demanded that we redeem certain shares of our redeemable common stock held by Genentech for approximately $3,100,000. Genentech's claim was based on provisions in the agreement requiring us to redeem, at the price of $10.01 per share, the shares representing the difference between the funds invested by Genentech to acquire such stock, and the amount expended by us on the terminated program less an

additional $1,000,000. In March 2000, we entered into a Settlement Agreement with Genentech under which Genentech released us from any obligation to redeem any shares of our common stock held by Genentech, without cost to us. Accordingly, the $5.2 million of redeemable common stock shown as a liability in the Company's December 31, 1999 balance sheet was transferred to equity in March, 2000, without any impact on our liquidity and capital resources. We and Genentech also agreed that all collaborations between us were terminated, and that neither of us had any rights to the intellectual property of the other.

In May 1996, we secured an equipment loan facility with a bank in the amount of $2,000,000. On August 5, 1999 we made a payment of approximately $752,000 of principal and interest to the bank to retire this loan facility rather than seek a waiver by the bank of our violation of a loan covenant requiring us to maintain unrestricted liquidity in an amount equal to or in excess of $10 million.

We continue to have outstanding obligations in regard to our former facilities in Lincoln, Rhode Island, including lease payments and operating costs of approximately $950,000 per year associated with our former research laboratory and corporate headquarters building, and debt service payments and operating costs of approximately $1,000,000 per year with respect to our pilot manufacturing and cell processing facility. We are actively seeking to sublease, assign or sell our 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.

On April 13, 2000 we sold 1,500 shares of our 6% cumulative convertible preferred stock plus a warrant for 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 $3.77 per share. The holders of the preferred stock have liquidation rights equal to their original investment plus accrued but unpaid dividends. The investors would be entitled to make additional investments in our securities on the same terms as those on which we complete offerings of our securities with third parties within 6 months, if any such offerings are completed. They have waived that right with respect to the common stock transactions described below. If offerings totaling at least $6 million are not completed during the 6 months, the investors have the right to acquire up to a total of 1,126 additional shares of convertible preferred stock, the face value of which is convertible at the option of the holders into common stock at $6.33 per share. Any unconverted preferred stock is converted, at the applicable conversion price, on April 13, 2002 in the case of the original stock and two years after the first acquisition of any of the additional 1,126 shares, if any are acquired. The warrants expires on April 13, 2005.

On August 3, 2000, we completed a $4 million common stock financing transaction with Millennium Partners, LP, or the Fund, an investment fund with more than a billion dollars in assets under management. We received $3 million of the purchase price at the closing and will receive the remaining $1 million upon effectiveness of a registration statement covering the shares purchased by the Fund. The Fund purchased our common stock at $4.33 per share. The Fund may be entitled, pursuant to an adjustable warrant issued in connection with the sale of common stock to the Fund, to receive additional shares of common stock on eight dates beginning six months from the closing and every three months thereafter. The number of additional shares the Fund may be entitled to on each date will be based on the number of shares of common stock the Fund continues to hold on each date and the market price of our common stock over a period prior to each date. We will have the right, under certain circumstances, to cap the number of additional shares by purchasing part of the entitlement from the Fund. The Fund also received a warrant to purchase up to 101,587 shares of common stock at $4.725 per share. This warrant is callable by us at $7.875 per underlying share.

In addition, the Fund has the option for twelve months to purchase up to $3 million of additional common stock. On August 23, 2000 the Fund exercised $1,000,000 of its option to purchase additional common stock at $5.53 per share. The Fund paid $750,000 of the purchase price in connection with the

closing on August 30, 2000, and will pay the remaining $250,000 upon effectiveness of a registration statement covering the shares owned by the Fund. At the closing on August 30, 2000, we issued to the Fund an adjustable warrant similar to the one issued on August 3, 2000. This adjustable warrant was canceled by agreement between us and the Fund on November 1, 2000. The Fund also received a warrant to purchase up to 19,900 shares of common stock at $6.03 per share. This warrant is callable by us at $10.05 per underlying share.

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. Substantial additional funds will be required to support our research and development programs, 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 adverse effect on the Company's liquidity and capital 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 or facilities, 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. Lack of necessary funds may require us to delay, reduce or eliminate some or all of our research and product development programs or to license our potential products or technologies to third parties. Funding may not be available when needed--at all, or on terms acceptable to the Company.

While our cash requirements may vary, as noted above, we currently expect that our existing capital resources, including income earned on invested capital, will be sufficient to fund our operations into the first quarter of 2001. Our cash requirements may vary, however, depending on numerous factors. 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.

YEAR 2000

The Company tested its material software applications to determine whether each program was prepared to accommodate date information for the year 2000 and beyond, and found them to be year 2000 compliant. The Company also tested the status of its facilities systems such as phones, voice mail, heating/ air conditioning, electricity and security systems and its laboratory and manufacturing equipment, and polled its major suppliers and vendors, to determine if they are year 2000 compliant, again without identifying any problems. Company has not to date encountered any significant year 2000 problems, but is continuing to monitor for potential issues. The costs of testing and monitoring have been and are expected to continue to be immaterial to the Company's operating results, but there can be no assurance that no problem will reveal itself in the future, or that if a problem does occur it will not have an adverse effect on the Company's operations or financial results.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

As of the year ended December 31, 1999, the Company did not maintain any investments that were exposed to market risk from changes in interest rates or the fair market value of such investments. Interest

rate risk with respect to the Company's short and long-term debt is considered to be immaterial. As of the year ended December 31, 1999, the Company did not maintain any hedge positions.

Our investment in 126,193 shares of Modex Therapeutics Ltd. Stock was not exposed to market risk as of December 31, 1999, however Modex shares were offered in an IPO on the Swiss Neue Market on June 23, 2000 at a price of 168.00 Swiss francs. At June 30, 2000 our shares were valued at $19,220,165, based on the per share price of $152.31 which we converted from the market price of 247.50 Swiss francs on June 30, 2000. The market price of the Modex stock on October 31, 2000 was 329.50 Swiss francs, which converts to $183.28 using exchange rates on that date, which represents an estimated fair market value of $23,128,598 for our holdings. Our value in this investment is subject to both equity price risk and foreign currency exchange risk. From the date of the Modex IPO to the date hereof, the Modex closing share price has fluctuated from a low of 200.00 Swiss francs on June 23, 2000 to a high of 390.00 Swiss francs on October 6, 2000. If we were to seek to liquidate all or part of our investment in Modex, our proceeds would depend on the share price and foreign currency exchange rates at the time of conversion. Additionally, if we sell a sizable portion of our holdings, we may have to sell these shares at a discount to market price. We are restricted from any sale of our shares in Modex until December 23, 2000.

The company's sole market risk sensitive instrument is:

NO. OF SHARES	DESCRIPTION	ASSOCIATED RISKS	MARKET VALUE AT JUNE 30, 2000	EXPECTED FUTURE CASH FLOWS
123,193	Modex Therapeutics	Equity/Foreign Currency Translation	$19,220,165	(1)

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(1) Although the company has not formally adopted a liquidation plan for this investment, liquidation may be necessary to meet operating cash flow requirements. Under the agreement with Modex, the company is restricted from selling its holding through December 23, 2000.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

REPORT OF INDEPENDENT AUDITORS

Stockholders and Board of Directors
CytoTherapeutics, Inc.

We have audited the accompanying consolidated balance sheets of CytoTherapeutics, Inc. as of December 31, 1999 and 1998, and the related consolidated statements of operations, changes in redeemable common stock and stockholders' equity and cash flows for each of the three years in the period ended December 31, 1999. 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. 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 CytoTherapeutics, Inc. at December 31, 1999 and 1998, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 1999, in conformity with accounting principles generally accepted in the United States.

ERNST & YOUNG LLP

Providence, Rhode Island
April 14, 2000

STEMCELLS, INC.
(FORMERLY CYTOTHERAPEUTICS, INC.)

CONSOLIDATED BALANCE SHEETS

	DECEMBER 31,	
	1999	1998
ASSETS		
Current assets:		
Cash and cash equivalents	$ 4,760,064	$ 7,864,788
Marketable securities	--	9,520,939
Accrued interest receivable	42,212	206,609
Technology sale receivable	3,000,000	--
Debt service fund	609,905	--
Other current assets	558,674	841,674
Total current assets	8,970,855	18,434,010
Property held for sale	3,203,491	--
Property, plant and equipment, net	1,747,885	8,356,009
Other assets, net	1,858,768	6,075,663
Total assets	$ 15,780,999	$ 32,865,682
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 631,315	$ 710,622
Accrued expenses	2,605,068	1,020,119
Deferred revenue	--	2,500,000
Current maturities of capitalized lease obligations	324,167	317,083
Current maturities of long-term debt	--	1,000,000
Total current liabilities	3,560,550	5,547,824
Capitalized lease obligations, less current maturities	2,937,083	3,261,667
Long-term debt, less current maturities	--	500,000
Deposits	26,000	--
Deferred Rent	502,353	222,673
Commitments and contingencies		
Redeemable common stock, $.01 par value; 524,337 shares issued and outstanding at December 31, 1999 and 1998	5,248,610	5,248,610
Common stock to be issued	--	187,500
Stockholders' equity:		
Convertible preferred stock, $.01 par value; 1,000,000 shares authorized; no shares issued and outstanding	--	--
Common stock, $.01 par value; 45,000,000 shares authorized; 18,635,565 and 17,800,323 shares issued and outstanding at December 31, 1999 and 1998, respectively	186,355	178,003
Additional paid-in capital	123,917,758	122,861,606
Accumulated deficit	(119,372,710)	(103,664,084)
Unrealized losses on marketable securities	--	(5,198)
Accumulated total comprehensive loss	(119,372,710)	(103,669,282)
Deferred compensation	(1,225,000)	(1,472,919)
Total stockholders' equity	3,506,403	17,897,408
Total liabilities and stockholders' equity	$ 15,780,999	$ 32,865,682

SEE ACCOMPANYING NOTES TO CONSOLIDATED FINANCIAL STATEMENTS.

STEMCELLS, INC.
(FORMERLY CYTOTHERAPEUTICS, INC.)

CONSOLIDATED STATEMENTS OF OPERATIONS

	YEAR ENDED DECEMBER 31,		
	1999	1998	1997
Revenue from collaborative agreements	$ 5,021,707	$ 8,803,163	$ 10,617,443
Operating expenses:			
Research and development	9,984,027	17,658,530	18,603,523
Acquired research and development	--	--	8,343,684
General and administrative	4,927,303	4,602,758	6,158,410
Encapsulated cell therapy wind down and corporate relocation	6,047,806	--	--
	20,959,136	22,261,288	33,105,617
Loss from operations	(15,937,429)	(13,458,125)	(22,488,174)
Other income (expense):			
Interest income	564,006	1,253,781	1,931,260
Interest expense	(335,203)	(472,400)	(437,991)
Gain on partial sale of Modex	--	--	3,386,808
Loss on sale/leaseback	--	--	(342,014)
Loss on equity investment	--	--	(105,931)
Other income (expense)	--	48,914	(57,538)
	228,803	830,295	4,374,594
Net loss	$(15,708,626)	$(12,627,830)	$(18,113,580)
Basic and diluted net loss per share	$ (.84)	$ (.69)	$ (1.08)
Shares used in computing basic and diluted net loss per share	18,705,838	18,290,548	16,704,144

SEE ACCOMPANYING NOTES TO CONSOLIDATED FINANCIAL STATEMENTS.

STEMCELLS, INC.
(FORMERLY CYTOTHERAPEUTICS, INC.)
CONSOLIDATED STATEMENTS OF CHANGES IN REDEEMABLE COMMON STOCK AND STOCKHOLDERS' EQUITY (CONTINUED)

	REDEEMABLE COMMON STOCK		COMMON STOCK		ADDITIONAL PAID-IN	ACCUMULATED
	SHARES	AMOUNT	SHARES	AMOUNT	CAPITAL	DEFICIT
Balances, December 31, 1996	815,065	$ 8,158,798	15,614,333	$156,144	$107,649,659	$ (72,922,674)
Issuance of common stock	--	--	307,548	3,074	1,552,432	--
Issuance of common stock under the stock purchase plan	--	--	31,822	319	180,103	--
Deferred compensation recorded in connection with the granting of stock options	--	--	--	--	1,750,000	--
Common stock issued pursuant to employee benefit plan	--	--	25,588	256	169,196	--
Issuance of common stock--StemCells	--	--	1,219,381	12,194	7,381,206	--
Redeemable common stock lapses	(257,311)	(2,575,688)	257,311	2,573	2,573,115	--
Exercise of stock options	--	--	75,237	752	244,427	--
Deferred compensation--amortization and cancellations	--	--	(5,000)	(50)	(27,294)	--
Change in unrealized losses on marketable securities	--	--	--	--	--	--
Change in cumulative translation adjustment	--	--	--	--	--	--
Net loss	--	--	--	--	--	(18,113,580)
Comprehensive loss						
Balances, December 31, 1997	557,754	$ 5,583,110	17,526,220	$175,262	$121,472,844	$ (91,036,254)

	OTHER COMPREHENSIVE INCOME			
	UNREALIZED GAINS (LOSSES) ON MARKETABLE SECURITIES	CUMULATIVE TRANSLATION ADJUSTMENTS	DEFERRED COMPENSATION	TOTAL STOCKHOLDERS' EQUITY
Balances, December 31, 1996	$ 14,760	$(60,416)	$ (90,118)	$ 34,747,355
Issuance of common stock	--	--	--	1,555,506
Issuance of common stock under the stock purchase plan	--	--	--	180,422
Deferred compensation recorded in connection with the granting of stock options	--	--	(1,750,000)	--
Common stock issued pursuant to employee benefit plan	--	--	--	169,452
Issuance of common stock--StemCells	--	--	--	7,393,400
Redeemable common stock lapses	--	--	--	2,575,688
Exercise of stock options	--	--	--	245,179
Deferred compensation--amortization and cancellations	--	--	137,298	109,954
Change in unrealized losses on marketable securities	(23,637)	--	--	(23,637)
Change in cumulative translation adjustment	--	60,416	--	60,416
Net loss	--	--	--	(18,113,580)
Comprehensive loss				(18,076,081)
Balances, December 31, 1997	$ (8,877)	--	$(1,702,820)	$ 28,900,155

SEE ACCOMPANYING NOTES TO CONSOLIDATED FINANCIAL STATEMENTS.

STEMCELLS, INC.
(FORMERLY CYTOTHERAPEUTICS, INC.)
CONSOLIDATED STATEMENTS OF CHANGES IN REDEEMABLE COMMON STOCK AND STOCKHOLDERS' EQUITY (CONTINUED)

	REDEEMABLE COMMON STOCK		COMMON STOCK		ADDITIONAL PAID-IN	ACCUMULATED	UNREALIZED GAINS (LOSSES) ON MARKETABLE
	SHARES	AMOUNT	SHARES	AMOUNT	CAPITAL	DEFICIT	SECURITIES
Issuance of common stock.....	--	--	--	--	--	--	--
Issuance of common stock under the stock purchase plan.....	--	--	43,542	$ 436	$ 83,622		
Deferred compensation recorded in connection with the granting of stock options.....	--	--	--	--	--	--	--
Common stock issued pursuant to employee benefit plan.....	--	--	84,812	848	143,025	--	--
Issuance of common stock--StemCells.....	--	--	101,320	1,013	505,587	--	--
Redeemable common stock lapses.....	(33,417)	(334,500)	33,417	334	334,166	--	--
Exercise of stock options.....	--	--	11,012	110	1,254	--	--
Deferred compensation--amortization and cancellations.....	--	--	--	--	321,108	--	--
Change in unrealized losses on marketable securities.....	--	--	--	--	--	--	3,679
Net loss.....	--	--	--	--	--	(12,627,830)	--
Comprehensive loss.....							
Balances, December 31, 1998.....	524,337	$ 5,248,610	17,800,323	$178,003	$122,861,606	$(103,664,084)	$ (5,198)

	DEFERRED COMPENSATION	TOTAL STOCKHOLDERS' EQUITY
Issuance of common stock.....	--	--
Issuance of common stock under the stock purchase plan.....		$ 84,058
Deferred compensation recorded in connection with the granting of stock options.....	--	--
Common stock issued pursuant to employee benefit plan.....	--	143,873
Issuance of common stock--StemCells.....	--	506,600
Redeemable common stock lapses.....	--	334,500
Exercise of stock options.....	--	1,364
Deferred compensation--amortization and cancellations.....	229,901	551,009
Change in unrealized losses on marketable securities.....	--	3,679
Net loss.....	--	(12,627,830)
Comprehensive loss.....		(12,624,151)
Balances, December 31, 1998.....	$(1,472,919)	$ 17,897,408

STEMCELLS, INC.
(FORMERLY, CYTOTHERAPEUTICS, INC.)
CONSOLIDATED STATEMENTS OF CHANGES IN REDEEMABLE COMMON STOCK AND STOCKHOLDERS' EQUITY (CONTINUED)

	REDEEMABLE COMMON STOCK		COMMON STOCK		ADDITIONAL PAID-IN	ACCUMULATED	UNREALIZED GAINS (LOSSES) ON MARKETABLE
	SHARES	AMOUNT	SHARES	AMOUNT	CAPITAL	DEFICIT	SECURITIES
Issuance of common stock	--	--	196,213	$ 1,962	$ 318,221	--	--
Issuance of common stock under the stock purchase plan	--	--	57,398	574	41,619		
Deferred compensation recorded in connection with the granting of stock options	--	--	--	--	--	--	--
Common stock issued pursuant to employee benefit plan	--	--	90,798	908	102,502	--	--
Issuance of common stock--StemCells	--	--	--	--	--	--	--
Redeemable common stock lapses	--	--	--	--			
Exercise of stock options	--	--	490,833	4,908	513,534	--	--
Deferred compensation--amortization and cancellations	--	--	--	--	80,276	--	--
Change in unrealized losses on marketable securities	--	--	--	--	--	--	5,198
Net loss	--	--	--	--	--	(15,708,626)	--
Comprehensive loss							
Balances, December 31, 1999	524,337	$ 5,248,610	18,635,565	$186,355	$123,917,758	$(119,372,710)	$ --

	DEFERRED COMPENSATION	TOTAL STOCKHOLDERS' EQUITY
Issuance of common stock	--	$ 320,183
Issuance of common stock under the stock purchase plan	42,193	
Deferred compensation recorded in connection with the granting of stock options	--	--
Common stock issued pursuant to employee benefit plan	--	103,410
Issuance of common stock--StemCells		
Redeemable common stock lapses		
Exercise of stock options	--	518,442
Deferred compensation--amortization and cancellations	247,919	328,195
Change in unrealized losses on marketable securities	--	5,198
Net loss	--	(15,708,626)
Comprehensive loss		(15,703,428)
Balances, December 31, 1999	$(1,225,000)	$ 3,506,403

SEE ACCOMPANYING NOTES TO CONSOLIDATED FINANCIAL STATEMENTS.

STEMCELLS, INC.
(FORMERLY CYTOTHERAPEUTICS, INC.)

CONSOLIDATED STATEMENTS OF CASH FLOWS

	YEAR ENDED DECEMBER 31,		
	1999	1998	1997
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net loss	$(15,708,626)	$(12,627,830)	$(18,113,580)
Adjustments to reconcile net loss to net cash used for operating activities:			
Depreciation and amortization	1,717,975	2,244,146	1,968,234
Acquired research and development	--	551,009	8,343,684
Amortization of deferred compensation	328,195	--	109,954
Fair market adjustment for property held for sale	300,000	--	--
Other non-cash charges	320,183	410,173	105,931
Gain on investment	--	--	(3,386,808)
Loss on sale of fixed assets	1,117,286	--	413,856
Loss on sale of intangibles	440,486		
Changes in operating assets and liabilities:			
Accrued interest receivable	164,397	346,577	100,004
Other current assets	283,000	(265,665)	(232,604)
Accounts payable and accrued expenses	1,344,142	(2,378,613)	(1,233,501)
Deferred rent	279,680	--	--
Deferred revenue	(2,500,000)	2,483,856	(1,842,948)
Net cash used in operating activities	(11,913,282)	(9,236,347)	(13,767,778)
CASH FLOWS FROM INVESTING ACTIVITIES:			
Proceeds from sale of Modex, net of cash disposed	--	--	2,958,199
Purchases of marketable securities	(4,397,676)	(18,982,387)	(14,182,521)
Proceeds from sales of marketable securities	13,923,813	22,573,625	23,736,242
Purchases of property, plant and equipment	(192,747)	(2,153,525)	(7,710,126)
Proceeds on sale of fixed assets	746,448	--	8,003,926
Purchase of other investment	--	--	(250,000)
Acquisition of other assets	(558,311)	(400,219)	(1,599,418)
Disposal of other assets	440,486	--	--
Acquisition of StemCells assets	--	--	(640,490)
Advance to Cognetix	--	--	(250,000)
Repayment from Cognetix	--	--	250,000
Net cash provided by investing activities	9,962,013	1,037,494	10,315,812
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from issuance of redeemable common stock	--	--	--
Proceeds from issuance of common stock	145,603	227,931	1,905,380
Proceeds from the exercise of stock options and warrants	518,442	1,364	245,179
Proceeds from debt financings	--	1,259,300	--
Repayments of debt and lease obligations	(1,817,500)	(1,366,655)	(2,496,849)
Net cash provided by (used in) financing activities	(1,153,455)	121,940	(346,290)
Effect of exchange rate changes on cash and cash equivalents	--	--	(181,627)
Decrease in cash and cash equivalents	(3,104,724)	(8,076,913)	(3,979,883)
Cash and cash equivalents, January 1	7,864,788	15,941,701	19,921,584
Cash and cash equivalents, December 31	$ 4,760,064	$ 7,864,788	$ 15,941,701
Supplemental disclosure of cash flow information:			
Interest paid	$ 335,203	$ 444,047	$ 436,461

Non-cash transaction:

In December 1999, the Company sold intellectual property related to its encapsulated cell technology. In association with the transaction, the Company recorded a receivable of $3,000,000 and reduced intangible assets.

SEE ACCOMPANYING NOTES TO CONSOLIDATED FINANCIAL STATEMENTS.

STEMCELLS, INC.
(FORMERLY CYTOTHERAPEUTICS, INC.)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

DECEMBER 31, 1999

1. NATURE OF BUSINESS

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

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

PRINCIPLES OF CONSOLIDATION

The consolidated financial statements include accounts of the Company and StemCells California, Inc., a wholly owned subsidiary. Significant intercompany accounts have been eliminated in consolidation.

USE OF ESTIMATES

The preparation of the consolidated financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

CASH EQUIVALENTS AND MARKETABLE SECURITIES

Cash equivalents include funds held in investments with original maturities of three months or less when purchased. The Company's policy regarding selection of investments, pending their use, is to ensure safety, liquidity, and capital reservation while obtaining a reasonable rate of return. Marketable securities consist of investments in agencies of the U.S. government, investment grade corporate notes and money market funds. The fair values for marketable securities are based on quoted market prices.

The Company determines the appropriate classification of cash equivalents and marketable 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.

PROPERTY HELD FOR SALE

As a result of the Company's decision to exit the encapsulated cell technology and relocate its corporate headquarters to Sunnyvale, CA, certain property considered by management to no longer be 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

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

Buildings and improvements	3-15 years

Machinery and equipment	3-10 years
Furniture and fixtures	3-10 years

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

PATENT COSTS

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 written off to expense at the time such patents are deemed to have no continuing value. At December 31, 1999 and 1998, total costs capitalized were $718,000 and $4,285,000 and the related accumulated amortization were $9,000 and $347,000, respectively. Patent expense totaled $539,000, $3,000, and $365,000 in 1999, 1998 and 1997, respectively.

In December 1999, the Company sold its Encapsulated Cell Technology ("ECT") to Neurotech, S.A. for an initial payment of $3,000,000, royalties on future product sales, and a portion of certain Neurotech revenues from third parties, in return for the assignment to Neurotech of intellectual property assets relating to ECT. In addition, the Company retained certain non-exclusive rights to use ECT in combination with its proprietary stem cell technology and in the field of vaccines for prevention and treatment of infectious diseases. The patent portfolio that was sold had a net book value of $3,180,000. The loss on this transaction and expenses related to the write-down of ECT are included in wind-down expenses on the Company's Consolidated Statement of Operations.

STOCK BASED COMPENSATION

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. The Company accounts for stock option grants in accordance with APB Opinion No. 25, ACCOUNTING FOR STOCK ISSUED TO EMPLOYEES, and, accordingly, recognizes no compensation expense for qualified stock option grants.

For certain non-qualified stock options granted to non-employees, the Company accounts for these grants in accordance with FAS No. 123--ACCOUNTING FOR STOCK-BASED COMPENSATION AND EITF96-18--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 consulting expenses the estimated fair value of such options as calculated using the Black-Scholes valuation model. 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.

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 rates under 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 FROM COLLABORATIVE AGREEMENTS

Revenues from collaborative agreements are recognized as earned upon either the incurring of reimbursable expenses directly related to the particular research plan or the achievement of certain

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

development milestones as defined within the terms of the collaborative agreement. Payments received in advance of research performed are designated as deferred revenue. Recorded revenues are not refundable in the event research efforts are considered unsuccessful.

RESEARCH AND DEVELOPMENT COSTS

The company expenses all research and development costs as incurred.

NET LOSS PER SHARE

Net loss per share is computed using the weighted average number of shares of common stock outstanding. Common equivalent shares from stock options and warrants are excluded, as their effect is antidilutive.

RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS

The Securities Exchange Commission's recently issued Staff Accounting Bulletin No. 101 provides guidance on revenue recognition that may impact the Company's future reporting relative to recognizing revenues received from collaborative and similar agreements. The Company does not expect this guidance to result in significant changes to its existing revenue recognition policy, subject to the specific terms of each individual collaborative agreement.

3. SALE OF 6% CUMULATIVE CONVERTIBLE PREFERRED STOCK

On April 13, 2000, the Company completed arrangements to sell 1,500 shares of 6% cumulative convertible preferred stock plus a warrant for 75,000 shares of the Company's 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 convertible at the option of the holders into common stock at $3.77 per share (based on the face value of the preferred shares). The conversion price may be below the trading market price of the stock at the time of conversion. The Company has valued the beneficial conversion feature using the intrinsic value method reflecting the April 13, 2000 commitment date and the most beneficial per share discount available to the preferred shareholders. Such value was $265,000 and will be 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. The investors would be entitled to make additional investments in the Company on the same terms as those on which the Company completes offerings of its securities with third parties within 6 months, if any such offerings are completed. If offerings totaling at least $6 million are not completed during the 6 months, the investors have the right to acquire up to 1,126 additional shares of convertible preferred stock at $6.33 per share. Any unconverted preferred stock is converted (based on the face value of the preferred shares), at the applicable conversion price, on April 13, 2002 in the case of the original stock and two years after the first acquisition of any of the additional 1,126 shares, if any are acquired. The warrant expires on April 13, 2005.

4.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.

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 Sunnyvale, 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 administering 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 is 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 approximately $6,048,000 for the year ended December 31, 1999; no such expenses were incurred in 1998 and 1997. These expenses relate to the wind-down of the Company's encapsulated cell technology research and development program and the Company's other Rhode Island operations, and the transfer of the Company's corporate headquarters to Sunnyvale, California.

4.WIND-DOWN OF ENCAPSULATED CELL TECHNOLOGY RESEARCH AND DEVELOPMENT PROGRAM (CONTINUED)

A description of these expenses, including the amounts and periods of recognition, are as follows:

	THIRD QUARTER 1999	FOURTH QUARTER 1999	TOTAL WIND-DOWN EXPENSE
Employee severance costs	$1,554,000	$ --	$1,554,000
Impairment losses(1):			
Fixed assets	800,000	--	800,000
ECT patents	260,000	--	260,000
	1,060,000	--	1,060,000
Rhode Island facilities carrying costs(2):			
Corporate headquarters	702,000	--	702,000
Pilot manufacturing plant	562,000	--	562,000
	1,264,000	--	1,264,000
Employee outplacement	200,000	--	200,000
RIPSAT settlement(3)	--	1,172,000	1,172,000
Loss on sale of assets(4):			
Fixed assets	--	318,000	318,000
ECT patents	--	180,000	180,000
	--	498,000	498,000
Write-down of pilot plant(5)	--	300,000	300,000
	$4,078,000	$1,970,000	$6,048,000

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(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 the operating lease payments, utilities, property taxes, insurance, maintenance, interest and other non-employee related expenses necessary to maintaining these facilities through the expected date of disposition (June 30, 2000).

(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 operating 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).

4.WIND-DOWN OF ENCAPSULATED CELL TECHNOLOGY RESEARCH AND DEVELOPMENT PROGRAM (CONTINUED)

(5) The write-down of the pilot plant was based on an independent property appraisal, which was not available during the third quarter, when the Company reached a decision to exit ECT activities and relocate the corporate headquarters.

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 costs.

Property held for sale at December 31, 1999, 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 totalling approximately $140,000 for the quarter ended December 31, 1999. The balance reflected the $300,000 write-down included as part of the additional wind-down expenses recognized during the fourth quarter, in accordance with Financial Accounting Standards Board Statement 121, which requires that long-lived assets be reviewed for impairment whenever events or circumstances indicate that the carrying value of the asset may not be recoverable. There were no such assets at December 31, 1998.

5. STEMCELLS CALIFORNIA, INC.

In September 1997, a merger of a wholly owned subsidiary of the company and StemCells California, Inc. was completed in the form of a purchase. Through the merger, the Company acquired StemCells California, Inc. for a purchase price totaling approximately $9,475,000, consisting of 1,320,691 shares of the Company's common stock, valued at $6,600,000 and options and warrants for the purchase of 259,296 common shares at nominal consideration, valued at $1,300,000, the assumption of certain liabilities of $934,000 and transaction costs of $641,000. Options and warrants were valued utilizing the intrinsic method, and the resultant value approximated the value determined using the Black-Scholes method. The purchase price was allocated, based upon an asset valuation study using income approach methods, to license agreements valued at $1,131,000 to be amortized over three years and acquired research and development of $8,344,000, which was expensed. The acquired research and development had not reached scientific feasibility and had no alternative future uses. 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. 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 469,000 options would vest over eight years. The expense associated with the grants that vested immediately was considered non-employee compensation and was

5. STEMCELLS CALIFORNIA, INC. (CONTINUED)

based on the fair value of the options granted. The expense was considered immaterial. In connection with the 469,000 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 fair value was determined using the Black-Scholes method with the following inputs: volatility .594, expected life 8 years, dividend yield 0.0%, risk free rate 5.98%. If the milestones specified relating to the 1,031,000 option granted to non-employees, Drs. Weissman and Gage, are achieved, at that time the company will record compensation expense for the fair market value of such options determined using the Black-Scholes method. The company has 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.

Stem cell research is conducted pursuant to the provisions of an agreement between the company and Drs. Weissman and Gage providing for a two-year research plan. If the goals of the research plan are accomplished, the Company has agreed to fund continuing stem cell research. Increases in stem cells research funding of not more than 25% a year will be funded by the Company as long as the goals of the research plan are being met. However, the Company will retain the option of (i) ceasing or reducing brain stem cell research even if all research plan goals are met, but will be required to accelerate the vesting of all still-achievable performance based stock options, and (ii) ceasing or reducing non-brain stem cell research even if all plan goals are being met by affording the scientific research founders the opportunity to continue development of the non-brain stem cell research by licensing the technology related to such research to the founders in exchange for a payment to the Company equal to all prior Company funding for such research, plus royalty payments.

6. MODEX

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 the transactions, the Company reduced its ownership interest from 50% to approximately 25% in exchange for $4 million cash and elimination of its prior contingent obligation to contribute an additional Sfr 2.4 million (approximately $1.7 million) to Modex in July 1998. In the transactions, all of the put and call arrangements between the Company and other stockholders of Modex were eliminated and the Company forgave $463,000 due from Modex to the Company. The Company recorded a gain on the transactions of $3,387,000.

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 at December 31, 1999.

The pre-existing royalty-bearing Cross License Agreement between the Company and Modex was assigned by the Company to Neurotech S.A., a privately held French company, as part of the sale of the intellectual property assets related to the Company's encapsulated cell therapy technology to Neurotech. Under the terms of the sale to Neurotech, the Company will receive a portion of revenues Neurotech receives from Modex under the Cross License Agreement.

7. MARKETABLE SECURITIES

During 1999, the Company sold all of its remaining marketable equitable securities. At December 31, 1999, all of the Company's available funds were held in cash and cash equivalents. The following is a summary of available-for-sale securities held at December 31, 1998:

	DECEMBER 31, 1998			
	COST	GROSS UNREALIZED GAINS	GROSS UNREALIZED LOSSES	ESTIMATED FAIR VALUE
U.S. government securities	$ 1,500,994	$1,720	$ (504)	$ 1,502,210
U.S. corporate securities	9,225,095	3,244	(9,658)	9,218,681
Total debt securities	$10,726,089	$4,964	$(10,162)	10,720,891
Debt securities included in cash and cash equivalents				(1,199,952)
Debt securities included in marketable securities				$ 9,520,939

8. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment consists of the following:

	DECEMBER 31,	
	1999	1998
Building and improvements	$ 665,890	$5,665,077
Machinery and equipment	1,691,096	9,887,251
Furniture and fixtures	219,260	869,831
	2,576,286	16,422,159
Less accumulated depreciation and amortization	828,401	8,066,150
	$1,747,885	$8,356,009

Depreciation and amortization expense was $1,436,000, $1,720,000, and $1,778,000 for the years ending December 31, 1999, 1998 and 1997, respectively.

As part of the Company's restructuring of its operations, sale of its encapsulated cell technology ("ECT"), and relocation of its corporate headquarters to Sunnyvale, California, the Company identified fixed assets associated with the ECT or otherwise no longer needed. In December of 1999, the Company disposed of these excess fixed assets, realizing proceeds of approximately $746,000. At the time of the sale, these assets had a net book value of approximately $1,063,000 after a third quarter write-down of $800,000, which was based on management's estimate of expected sale proceeds. The third quarter write-down and actual fourth quarter loss were included as wind-down expenses.

Certain property, plant and equipment have been acquired under capitalized lease obligations. These assets totaled $5,827,000 and $6,587,000, at December 31, 1999 and 1998, respectively, with related accumulated amortization of $2,747,000 and $2,860,000 at December 31, 1999 and 1998, respectively. As a

8. PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

result of the Company's decision to exit ECT and relocate to Sunnyvale, CA, this property has been classified as held for sale at December 31, 1999.

9. OTHER ASSETS

Other assets are as follows:

	DECEMBER 31,	
	1999	1998
Patents, net	$ 708,823	$3,938,755
License agreements, net	282,750	659,750
Security deposit--building lease	750,000	750,000
Restricted cash	--	603,467
Deferred financing costs, net	117,195	123,701
	$1,858,768	$6,075,663

The decrease in patents from 1999 to 1998 was primarily due to management's decision to exit encapsulated cell technology and dispose of the related intellectual property. Management reached this decision during the third quarter of 1999, and established a reserve that included $260,000 directly related to the write-down of encapsulated cell technology patents. During the fourth quarter, management established an additional reserve that included a $180,000 loss associated with the sale of encapsulated cell technology patents worth $3,180,000.

At December 31, 1999 and 1998, accumulated amortization was $857,000 and $818,000, respectively, for patents and license agreements.

10. ACCRUED EXPENSES

Accrued expenses are as follows:

	DECEMBER 31,	
	1999	1998
Wind-down expenses	$1,634,522	$ --
External services	97,439	412,253
Employee compensation	306,342	262,679
Collaborative research	222,140	196,505
Other	344,625	148,682
	$2,905,068	$1,020,119

The reserve for wind-down expenses included approximately $1,172,000 relating to the RIPSAT settlement (Notes 4 and 11) and approximately $463,000 for the estimated six months of lease payments and operating costs for the Rhode Island Facilities through an expected disposal date of June 30, 2000.

11. LEASES

The Company has undertaken direct financing transactions with the State of Rhode Island and received proceeds from the issuance of industrial revenue bonds totaling $5,000,000 to finance the construction of its pilot manufacturing facility. The related leases are structured such that lease payments will fully fund all semiannual interest payments and annual principal payments through maturity in August 2014. 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. In addition, the Company was required to maintain a debt service reserve until December 1999. On March 3, 2000 the Company entered into a settlement agreement with RIPSAT, the Rhode Island Industrial Recreational Building Authority ("IRBA") and the Rhode Island Industrial Facilities Corporation ("RIIFC"). The Company agreed to pay RIPSAT $1,172,000 in full satisfaction of all obligations of the Company to RIPSAT under the Funding Agreement dated as of June 22, 1989. On execution and delivery of this Agreement, IRBA agreed to return to the Company the full amount of the Company's debt service reserve ("Reserve Funds"), approximately $610,000 of principal and interest, relating to the bonds the Company has with IRBA and RIIFC. Such amount has been classified as debt service funds in current assets of the consolidated balance sheet. In order to avoid the loss of interest on the Reserve Funds due to early termination of certain investments, the parties agreed that the Company would render a net payment to RIPSAT in the amount of approximately $562,000.

In 1997, the Company completed construction of a new headquarters and laboratory facility. In November 1997, the Company entered into sale and leaseback agreements with a real estate investment trust. Under the terms of these agreements, the Company sold its new facility for $8,000,000, incurring a $342,000 loss on the sale. The Company simultaneously entered into a fifteen-year lease for the facility. The lease agreement calls for minimum rent of $750,000 for the first five years, $937,500 for years six to ten, $1,171,900 for years eleven to fourteen and $1,465,000 in year fifteen, with a $750,000 security deposit held for the term of the lease. The Company is recognizing rent expense on a straight line basis. At December 31, 1999, the Company has incurred $426,790 in deferred rent expense.

Future minimum capitalized lease obligations with non-cancelable terms in excess of one year at December 31, 1999, are as follows:

2000	$ 606,268
2001	589,217
2002	519,719
2003	436,909
2004	425,713
Thereafter	2,577,826
Total minimum lease payments	5,302,407
Less amounts representing interest	2,041,157
Present value of minimum lease payments	3,261,250
Less current maturities	324,167
Capitalized lease obligations, less current maturities	$2,937,083

11. LEASES (CONTINUED)

Rent expense for the years ended December 31, 1999, 1998 and 1997, was $947,000, $1,052,000 and $499,000, respectively.

12. LONG-TERM DEBT

Long-term debt is as follows:

	DECEMBER 31,	
	1999	1998
Term note payable, interest at the prime rate plus 1/2% (8.75% at December 31, 1998), principal payments commence in August 1998, due ratably through May 2000; secured by certain equipment (prepaid during 1999)	$ --	$1,500,000
Current maturities of long-term debt	--	1,000,000
Long-term debt, less current maturities	--	$ $500,000

13. REDEEMABLE COMMON STOCK

In November 1996, the Company signed certain collaborative development and licensing agreements with Genentech, Inc, including one under which Genentech purchased 829,171 shares of redeemable common stock for $8.3 million to fund development of products to treat Parkinson's disease. The Agreement also provided that Genentech had the right, at its discretion, to terminate the Parkinson's program at specified milestones in the program, and that if the program were terminated, Genentech had the right to require the Company to repurchase from Genentech the shares of the Company's common stock having a value equal to the amount by which the $8.3 million exceeded the expenses incurred by the Company in connection with such program by more than $1 million, based upon the share price paid by Genentech. Accordingly, the common stock is classified as redeemable common stock until such time as the related funds are expended. At December 31, 1998, $3,051,000 had been spent on the collaboration with Genentech and, accordingly, the Company has reclassified those common shares and related value to stockholders' equity. On May 21, 1998, Genentech exercised its right to terminate the collaboration and negotiations ensued with respect to the amount of redeemable common stock to be redeemed in accordance with the agreement and the method of such redemption. In March 2000, the Company reached a settlement of this matter with Genentech. Under the settlement agreement, Genentech released the Company from any obligation to redeem any shares of the Company's Common Stock held by Genentech. Accordingly, the Company will reclassify the amount currently recorded as Redeemable Common Stock ($5,248,000) to Stockholders' Equity in March 2000. The Company and Genentech also agreed that all of the agreements between them were terminated and that neither had any claim to the intellectual property of the other.

14. COMMON STOCK TO BE ISSUED

In 1998, the Company entered into an agreement with a Company advisor, under which the advisor prepared a strategic and business overview and provided related implementation support for the Company. The advisor agreed to accept cash and the Company's common stock as partial payment for its services. In 1999, the Company issued the $187,500 of common stock due to the advisor.

15. STOCKHOLDERS' EQUITY

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, as well as the purchase of Common Stock under an employee stock purchase plan at a discount to the market price. 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 the date of grant or within three months of termination. At December 31, 1999, the Company had reserved 2,603,736 shares of common stock for the exercise of stock options.

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

	1999		1998		1997	
	OPTIONS	WEIGHTED AVERAGE EXERCISE PRICE	OPTIONS	WEIGHTED AVERAGE EXERCISE PRICE	OPTIONS	WEIGHTED AVERAGE EXERCISE PRICE
Outstanding at January 1.....	1,654,126	$3.62	2,446,573	$7.48	2,423,025	$8.34
Granted.....	536,078	1.08	1,174,118	1.70	679,074	5.33
Exercised.....	(604,362)	1.50	(11,012)	.12	(82,737)	2.96
Canceled.....	(646,507)	5.31	(1,955,553)	7.08	(572,789)	9.21
Outstanding at December 31....	939,335	$2.65	1,654,126	$3.62	2,446,573	$7.48
Options exercisable at December 31.....	594,216	$3.44	1,108,936	$4.33	1,338,163	$7.79

On July 10, 1998, the Company re-priced 751,018 outstanding stock options. No compensation expense was recorded since the re-priced options carried an exercise price equal to the market price of the Company's common stock on the date of the re-pricing.

In addition to the options noted above, in conjunction with the StemCells California merger, StemCells California options originally issued under a prior StemCells California options plan were exchanged for options to purchase 250,344 shares of the Company's common stock at $.01 per share; 75,384 of these options are exercisable at December 31, 1997, 96,750 of these options vest and become exercisable only upon achievement of specified milestones, and the remaining 78,210 options vest over three years from the date of grant. The value of such options utilizing the intrinsic method, which approximated the value determined using the Black-Scholes method, was accounted for as part of the StemCells California acquisition price. Additionally, the Company adopted the 1997 CytoTherapeutics, Inc. StemCells California Research Stock Option Plan (the StemCells California Research Plan)

15. STOCKHOLDERS' EQUITY (CONTINUED)

whereby an additional 2,000,000 shares of Common Stock have been reserved. During 1997, the Company awarded options under the StemCells Research Plan to purchase 1.6 million shares of the Company's common stock to the Chief Executive Officer and scientific founders of StemCells at an exercise price of $5.25 per share. 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 achievement of specified milestones and the remaining 469,000 options would vest over eight years. Options granted to Dr. Rose, in his capacity as Chief Executive Officer, were valued using the intrinsic value method, in accordance with the provisions of APB 25, ACCOUNTING FOR STOCK ISSUED TO EMPLOYEES. Options granted to non-employees Drs. Weissman, Gage and Anderson were accounted for using the fair value method in accordance with the provisions of Statement of Financial Accounting Standards No. 123, ACCOUNTING FOR STOCK-BASED COMPENSATION.

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, 1999:

	OPTIONS OUTSTANDING			OPTIONS EXERCISABLE	
RANGE OF EXERCISE PRICES	NUMBER OUTSTANDING	WEIGHTED AVERAGE REMAINING CONTRACTUAL LIFE (YRS.)	WEIGHTED AVERAGE EXERCISE PRICE	NUMBER EXERCISABLE	WEIGHTED AVERAGE EXERCISE PRICE
Less than $5.00	755,398	8.50	$1.12	411,945	$ 1.02
$5.01--$10.00	90,687	4.56	6.55	89,021	6.55
Greater than $10.00	93,250	2.54	11.18	93,250	11.18
	939,335			594,216	

Pursuant to the requirements of FAS 123, the following are the pro forma net loss and net loss per share amounts for 1999, 1998, and 1997, 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 1999, 1998, and 1997, consistent with the provisions of FAS 123:

	1999		1998		1997	
	AS REPORTED	PRO FORMA	AS REPORTED	PRO FORMA	AS REPORTED	PRO FORMA
Net loss	$(15,708,626)	$(15,764,569)	$(12,627,830)	$(14,919,389)	$(18,113,580)	$(19,924,437)
Net loss per share	$(.84)	$(.84)	$(.69)	$(.82)	$(1.08)	$(1.19)

The weighted average fair value per share of options granted during 1999, 1998 and 1997 was $.88, $.82 and $3.40, respectively. The fair value of options and shares issued pursuant to the stock purchase

15. STOCKHOLDERS' EQUITY (CONTINUED)
plan at the date of grant were estimated using the Black-Scholes model with the following weighted average assumptions:

	OPTIONS			STOCK PURCHASE PLAN		
	1999	1998	1997	1999	1998	1997
Expected life (years).....	5	5	5	5	.5	.5
Interest rate.....	5.5%	5.2%	6.2%	5.0%	4.64%	5.5%
Volatility.....	96.7%	63.5%	59.0%	96.7%	63.5%	59.0%

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.

The effects on 1999, 1998 and 1997 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 the period presented includes only four, three or two years, respectively, of option grants under the Company's plans. 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.

STOCK WARRANTS

In conjunction with StemCells California merger, the Company exchanged StemCells California warrants for warrants to purchase 8,952 shares of Company common stock at $4.71 per share; such warrants were valued using the intrinsic value method which approximated the value determined using the Black-Scholes method, and were accounted for as part of the purchase price. In conjunction with various equipment leasing agreements, the Company had outstanding warrants to purchase 31,545 shares of common stock at prices ranging from $4.00 to $9.00 per share. The warrants expired in October 2000.

In connection with a public offering of common stock in April 1995, the Company issued warrants to purchase 434,500 shares of common stock at $8 per share. The warrants are nontransferable and expired in April 2000, subject to certain required exercise provisions. In addition to the foregoing rights, the holder of such warrants has the right, in the event the Company issues additional shares of common stock or other securities convertible into common stock, to purchase at the then market price of such common stock, sufficient additional shares of common stock to maintain the warrant holder's percentage ownership of the Company's common stock at 15%. This right, subject to certain conditions and limitations, expires in April 2000.

COMMON STOCK RESERVED

The Company has reserved 6,461,846 shares of common stock for the exercise of options, warrants and other contingent issuances of common stock.

16. RESEARCH AGREEMENTS

In November 1997, StemCells California, Inc., a wholly owned subsidiary of 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 $77,000 in 1997, $307,000 in 1998, and $309,000 in 1999. 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.

In April 1997, the Company entered into an agreement with Neurospheres, Ltd., which superseded all previous licensing agreements and settled a dispute with Neurospheres. Under the terms of the settlement, the Company has an exclusive royalty bearing license for growth-factor responsive stem cells for transplantation. Neurospheres had an option to acquire co-exclusive rights but did not exercise by the April 1998 deadline. The Company retains exclusive rights for transplantation. The parties have no further research obligations to each other, and the Company is under no obligation to provide additional funding.

In February 1997, CytoTherapeutics and Cognetix, Inc. entered into a Collaboration and Development Agreement related to the Company's former encapsulated cell technology. As part of the agreement with Cognetix, the Company purchased $250,000 of Cognetix preferred stock and, subject to certain milestones, was obligated to purchase as much as $1,500,000 of additional Cognetix stock over the next year. In July 1997, the Company loaned $250,000 to Cognetix which was repaid with interest in October 1997. In October 1998, the Company sold the $250,000 of preferred stock back to Cognetix for $298,914. The Company is under no obligation to provide additional funding under the agreement.

In 1996, the Company signed certain collaborative development and licensing agreements with Genentech, Inc. Under the terms of one of those agreements, Genentech purchased 829,171 shares of redeemable common stock for $8.3 million to fund development of products to treat Parkinson's disease. Genentech had the right, at its discretion, to terminate the Parkinson's program at specified milestones in the program. The Agreement also provided that if the Parkinson's program were terminated and the funds of the Company received from the sale of stock to Genentech pursuant to the Parkinson's agreement exceeded the expenses incurred by the Company in connection with such program by more than $1 million, Genentech had the right to require the Company to repurchase from Genentech shares of the Company's common stock having a value equal to the over funding, based upon the share price paid by Genentech. As such, the common stock purchased by Genentech has been classified as redeemable common stock until the funds are expended on the program. On May 21, 1998, Genentech exercised its right to terminate the collaboration and negotiations ensued with respect to the amount of redeemable common stock to be redeemed in accordance with the agreement and the method of such redemption. In March 2000 the Company announced the settlement of this matter with Genentech and at that time the redeemable common stock was reclassified to common stock. The Company is under no obligation to provide additional funding to Genentech, Inc.

In March 1995, the Company signed a collaborative research and development agreement with AstraZeneca for the development and marketing of certain encapsulated-cell products to treat pain.

16. RESEARCH AGREEMENTS (CONTINUED)

AstraZeneca made an initial, nonrefundable payment of $5,000,000, included in revenue from collaborative agreements in 1995, a milestone payment of $3,000,000 in 1997 and was to remit up to an additional $13,000,000 subject to achievement of certain development milestones. Under the agreement, the Company was obligated to conduct certain research and development pursuant to a four-year research plan agreed upon by the parties. Over the term of the research plan, the Company originally expected to receive annual payments of $5 million to $7 million from AstraZeneca, which was to approximate the research and development costs incurred by the Company under the plan. Subject to the successful development of such products and obtaining necessary regulatory approvals, AstraZeneca was obligated to conduct all clinical trials of products arising from the collaboration and to seek approval for their sale and use. AstraZeneca had the exclusive worldwide right to market products covered by the agreement. Until the later of either the expiration of all patents included in the licensed technology or a specified fixed term, the Company was entitled to a royalty on the worldwide net sales of such products in return for the marketing license granted to AstraZeneca and the Company's obligation to manufacture and supply products. AstraZeneca had the right to terminate the original agreement beginning April 1, 1998. On June 24, 1999, AstraZeneca informed the Company of the results of AstraZeneca's analysis of the double-blind, placebo-controlled trial of the Company's encapsulated bovine cell implant for the treatment of severe, chronic pain in cancer patients. AstraZeneca determined that, based on criteria it established, the results from the 85-patient trial did not meet the minimum statistical significance for efficacy established as a basis for continuing worldwide trials for the therapy. AstraZeneca therefore indicated that it did not intend to further develop the bovine cell-containing implant therapy and executed its right to terminate the agreement. The Company has no additional funding obligations with AstraZeneca.

The Company has entered into other collaborative research agreements whereby the Company funds specific research programs. Pursuant to such agreements, 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. The Company's principal academic collaborations had been with Brown University and Dr. Aebischer and Centre Hospitalier Universitaire Vaudois in Switzerland. However, with the termination of the Company's Encapsulated Cell Technology program and its focusing on the stem cell field, its principal academic collaborations are now with the Scripps Institute and the Oregon Health Science University. Research and development expenses incurred under these collaborations amounted to approximately $868,000, $1,259,000, and $1,326,000 for the years ended December 31, 1999, 1998 and 1997, respectively. The Company has no other significant collaborative research funding obligations.

17. INCOME TAXES

Due to net losses incurred by the Company in each year since inception, no provision for income taxes has been recorded. At December 31, 1999, the Company had tax net operating loss carry forwards of $96,195,000 and research and development tax credit carry forwards of $4,035,000 which expire at various times through 2019. Due to the "change in ownership" provisions of the Tax Reform Act of 1986, the Company's utilization of its net operating loss carry forwards and tax credits may be subject to annual limitation in future periods.

17. INCOME TAXES (CONTINUED)

Significant components of the Company's deferred tax assets and liabilities are as follows:

	DECEMBER 31,	
	1999	1998
Deferred tax assets:		
Capitalized research and development costs	$ 4,331,000	$ 28,124,000
Net operating losses	38,478,000	10,786,000
Research and development credits	4,035,000	3,646,000
Other	928,000	235,000
	47,772,000	42,791,000
Deferred tax liabilities:		
Patents	(246,000)	(1,537,000)
	47,526,000	41,254,000
Valuation allowance	(47,526,000)	(41,254,000)
Net deferred tax assets	$ --	$ --

Since there is uncertainty relating to the ultimate use of the loss carry forwards and tax credits, a valuation allowance has been recognized at December 31, 1999 and 1998, to fully offset the Company's deferred tax assets. The valuation allowance increased $6,272,000 in 1999, due primarily to the increases in net operating loss carry forwards and tax credits offset by reduction in capitalized research and development costs .

18. 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 may match a percentage of that contribution. The Company matches 50% of employee contributions, up to 6% of employee compensation, with the Company's common stock. The related expense was $103,000, $146,000, and $169,000 for the years ended December 31, 1999, 1998 and 1997, respectively.

19. CONTINGENCIES

The Company is routinely involved in arbitration, litigation and other matters as part of the ordinary course of its business. While the resolution of any matter may have an impact on the Company's financial results for a particular reporting period, management believes the ultimate disposition of these matters will not have a materially adverse effect on the Company's consolidated financial position or results of operations.

20. SUBSEQUENT EVENTS

On April 13, 2000, the Company completed arrangements to sell 1,500 shares of 6% cumulative convertible preferred stock plus a warrant for 75,000 shares of the Company's common stock to a member of its Board of Directors for $1,500,000, on terms more favorable than it was then able to obtain from outside investors. (SEE NOTE 3--"SALE OF 6% CUMULATIVE CONVERTIBLE PREFERRED STOCK.")

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

None.

PART III

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

DIRECTORS AND EXECUTIVE OFFICERS

The sections entitled "Election of Directors" and "Executive Officer" in the Company's definitive proxy statement for its 2000 Annual Meeting of Shareholders are hereby incorporated by reference.

ITEM 11. EXECUTIVE COMPENSATION

The section entitled "Executive Compensation" in the Company's definitive proxy statement for its 2000 Annual Meeting of Shareholders is hereby incorporated by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The section entitled "Share Ownership" in the Company's definitive proxy statement for its 2000 Annual Meeting of Shareholders is hereby incorporated by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The section entitled "Certain Relationships and Related Transactions" in the Company's definitive proxy statement for its 2000 Annual Meeting of Shareholders is hereby incorporated by reference.

PART IV

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

(a) Documents filed as part of this Form 10-K.

(1) 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.

(2) 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.
10.4*	Amendment to Registration Rights dated as of February 14, 1992 among the Registrant and certain of its stockholders.
10.15*	Form of at-will Employment Agreement between the Registrant and most of its employees.
10.20*	Form of Agreement for Consulting Services between the Registrant and members of its Scientific Advisory Board.
10.21*	Form of Nondisclosure Agreement between the Registrant and its Contractors.

EXHIBIT NO.	TITLE OR DESCRIPTION
10.28*	Master Lease and Warrant Agreement dated April 23, 1991 between the Registrant and PacifiCorp Credit, Inc.
10.29*	1988 Stock Option Plan.
10.30*	1992 Equity Incentive Plan.
10.31*	1992 Stock Option Plan for Non-Employee Directors.
10.32*	1992 Employee Stock Purchase Plan.
10.41**!!!!	Development and Supply Agreement dated December 1993 between Registrant and AKZO Faser AG.
10.43##**	Research Agreement dated as of February 1, 1994 between Genentech, Inc. and Registrant.
10.44##**	Research Agreement dated as of March 16, 1994 between NeuroSpheres, Ltd. and Registrant.
10.47++	Term Loan Agreement dated as of September 30, 1994 between The First National Bank of Boston and Registrant.
10.48++	Lease Agreement between the Registrant and Rhode Island Industrial Facilities Corporation, dated as of August 1, 1992.
10.49++	First Amendment to Lease Agreement between Registrant and The Rhode Island Industrial Facilities Corporation dated as of September 15, 1994.
10.50++	Supplementary Agreement dated as of July 1, 1994 between Akzo Nobel Faser AG and the Registrant.
10.51**++++	Development, Marketing and License Agreement, dated as of March 30, 1995 between Registrant and Astra AB.
10.52++++	Form of Unit Purchase Agreement to be executed by the purchasers of the Common Stock and Warrants offered in April 1995.
10.53+++	Form of Common Stock Purchase Agreement to be executed among the Registrant and certain purchasers of the Registrant's Common Stock.
10.54!**	Research and Commercialization Agreement dated as of September 4, 1995 among the Company, Dr. Patrick Aebischer and Canton of Vaud, Switzerland.
10.57!!	Convertible loan agreement dated as of July 10, 1996 between the Company and Modex Therapeutiques SA.
10.58###	Lease Agreement dated as of November 21, 1997 by and between Hub RI Properties Trust, as Landlord, and CytoTherapeutics, Inc., as Tenant.
10.59!!	Modex Therapeutiques SA stockholders voting agreement dated as of July 10, 1996 among Modex, the Company, the Societe Financiere Valoria SA and the other stockholders listed therein.
10.60!!	CTI individual stockholders option agreement dated as of July 10, 1996 among the Company and the individuals listed therein.
10.61!!	CTI Valoria option agreement dated of July 10, 1996 between the Company and the Societe Financiere Valoria SA.
10.64!!!	Term Loan Agreement dated as of October 22, 1996 between The First National Bank of Boston and the Registrant.
10.65***	Agreement and Plan of Merger dated as of August 13, 1997 among StemCells, Inc., the Registrant and CTI Acquisition Corp.
10.67***	Consulting Agreement dated as of September 25, 1997 between Dr. Irving Weissman and the Registrant.
10.68###	Letter Agreement among each of Dr. Irving Weissman and Dr. Fred H. Gage and the Registrant.
10.69**	Amended and Restated Cross License Agreement dated as of October 29, 1997 between Modex Therapeutiques SA and the Registrant.
10.70###	Letter Agreement dated as of September 30, 1997 between Dr. Seth Rudnick and the Registrant.
10.71****	StemCells, Inc. 1996 Stock Option Plan.

EXHIBIT NO.	TITLE OR DESCRIPTION
10.72****	1997 StemCells Research Stock Option Plan (the "1997 Plan").
10.73****	Form of Performance-Based Incentive Option Agreement issued under the 1997 Plan.
10.74###	Employment Agreement dated as of September 25, 1997 between Dr. Richard M. Rose and the Registrant.
10.75###	Employment agreement dated as of April 17, 1997, between John S. McBride and the Registrant.
10.78###	Loan Agreement dated as of May 15, 1996 between Fleet National Bank and the Registrant, together with the related Promissory Note executed by the Registrant, and an amendatory agreement dated as of May 15, 1997.
10.79[*]	Rights Agreement, dated as of July 27, 1998 between Bank Boston, N.A. as Rights Agent and the Registrant.*
10.80Section**	Employment Agreement dated as of June 8, 1998 between Philip K. Yachmetz and the Registrant.
10.81Section**	Consulting Services Agreement dated as of July 27, 1998, as amended December 19, 1998 between Dr. John J. Schwartz and the Registrant.
10.82Section**	Letter Agreement dated as of December 19, 1998 between John J. Schwartz and the Registrant.
10.83Section**	License Agreement dated as of October 27, 1998 between The Scripps Research Institute and the Registrant.
10.84Section**	License Agreement dated as of October 27, 1998 between The Scripps Research Institute and the Registrant.
10.85Section**	License Agreement dated as of November 20, 1998 between The Scripps Research Institute and the Registrant.
10.87SectionSection**	Purchase Agreement and License Agreement dated as of December 29, 1999 between Neurotech S.A. and the Registrant.
10.88**	License Agreement dated as of June 1999 between The Scripps Research Institute and the Registrant.
10.89**	License Agreement dated as of June 1999 between The Scripps Research Institute and the Registrant.
10.90	Employment Agreement dated as of June 8, 1998, as amended and restated as of June 8, 1999, between Philip K. Yachmetz and the Registrant.
10.91	Letter Agreement dated as of July 1, 1999 between John J. Schwartz and the Registrant.
10.92	Severance Agreement dated as of April 2, 1999 between John McBride and the Registrant.
10.93	Severance Agreement dated as of August 30, 1999 between Moses Goddard, M.D. and the Registrant.
10.95	Employment Agreement dated as of November 17, 1999 between George W. Dunbar Jr. and the Registrant.
10.96	Agreement dated as of November 17, 1999 between iCEO, LLC and the Registrant.
21	Subsidiaries of the Registrant.
23.1	Consent of Ernst & Young LLP, Independent Auditors.
27	Financial Data Schedule for fiscal year ended December 31, 1999.
99	Cautionary Factors Relevant to Forward-Looking Information.

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++	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.
*	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.
Section	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.
SectionSection	Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrant's current report on Form 8K on January 14, 2000.

(b) Current Reports on Form 8-K.

None

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 behalf by the undersigned, thereunto duly authorized.

STEMCELLS, INC.

BY: /S/ GEORGE W. DUNBAR, JR.
George W. Dunbar, Jr.
ACTING PRESIDENT AND CHIEF EXECUTIVE OFFICER

Dated: December 5, 2000

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/ GEORGE W. DUNBAR, JR. George W. Dunbar, Jr.	Acting President And Chief Executive Officer (principal executive officer)	December 5, 2000
/s/ GEORGE KOSHY George Koshy	Controller and Acting Chief Financial Officer (principal financial officer and principal accounting officer)	December 5, 2000
/s/ MARK J. LEVIN Mark J. Levin	Director	December 5, 2000
/s/ DONALD KENNEDY, PH.D. Donald Kennedy, Ph.D.	Director	December 5, 2000
/s/ JOHN J. SCHWARTZ, PH.D. John J. Schwartz, Ph.D.	Director, Chairman of the Board	December 5, 2000
/s/ IRVING L. WEISSMAN, M.D. Irving L. Weissman, M.D.	Director	December 5, 2000

Exhibit 10.88

LICENSE AGREEMENT

This License Agreement is entered into and made effective as of this ____day of June, 1999, by and between THE SCRIPPS RESEARCH INSTITUTE, a California nonprofit public benefit corporation ("Scripps") located at 10550 North Torrey Pines Road, La Jolla, California 92037, and STEMCELLS, INC., a California corporation ("Licensee") with offices at 701 George Washington Highway, Lincoln, Rhode Island 02865, a wholly-owned subsidiary of CytoTherapeutics, Inc. ("CTI"), with respect to the facts set forth below.

RECITALS

A. Scripps and Licensee have entered into a Research Funding and Option Agreement effective as of November 14, 1997 (the "Research Agreement"), pursuant to which Licensee agreed to fund certain research conducted in Dr. Nora Sarvetnick's laboratory at Scripps (the "Research Program").

B. Scripps is engaged in fundamental scientific biomedical and biochemical research, including research relating to pancreatic stem and progenitor cells, as more particularly described herein.

C. Licensee is engaged in research and development of stem and progenitor cells for the diagnosis, treatment and prophylaxis of diseases and other conditions in humans and animals.

D. Scripps has disclosed to Licensee certain technology described in that certain invention disclosure, a copy of which is attached hereto as Exhibit A and incorporated herein by reference (the "Invention(s)")

E. Scripps has the exclusive right to grant a license to the technology described in Exhibit A, subject to certain rights of the U.S. Government to use such technology for its own purposes, resulting from the receipt by Scripps of certain funding from the U. S. Government.

F. Scripps desires to grant to Licensee, and Licensee wishes to acquire, an exclusive worldwide right and license to the technology described in the Exhibit A and to certain patent rights and know-how of Scripps with respect thereto, subject to the terms and conditions set forth herein, with a view to developing and marketing products within the Field (as defined below).

AGREEMENT

NOW, THEREFORE, in consideration of the mutual covenants and conditions set forth herein, Scripps and Licensee hereby agree as follows:

1. Definitions. Capitalized terms shall have the meaning set forth below.

1.1 Affiliate. The term "Affiliate" shall mean any entity which directly or indirectly controls, is controlled by or is under common control with Licensee. The term "control" as used herein means the possession of the power to direct or cause direction of the management and the policies of an entity, whether through the ownership of a majority of the outstanding voting securities or by contract or otherwise.

1.2 Confidential Information. The term "Confidential Information" shall mean any and all proprietary or confidential information of Scripps or Licensee which may be exchanged between the parties at any time and from time to time during the term of this Agreement. Information shall not be considered confidential to the extent that it:

(a) Is publicly disclosed through no fault of any party hereto, either before or after it becomes known to the receiving party; or

(b) Was known to the receiving party prior to the date of this Agreement, which knowledge was acquired independently and not from another party hereto (or such party's employees); or

(c) Is subsequently disclosed to the receiving party in good faith by a third party who has a right to make such disclosure; or

(d) Has been published by a third party as a matter of right.

1.3 Field. The term "Field" shall mean all medical applications of the Scripps Patent Rights and Scripps Technology in humans and animals.

1.4 Licensed Product. The term "Licensed Product" shall mean a product, the manufacture, sale or use of which would but for the license granted herein, infringe a Valid Claim in the country for which such product is sold. Without limiting the foregoing, Licensed Product shall also include a product the manufacture, sale or use of a particular product would but for the license granted herein infringe a Valid Claim in the United States and at least two (2) Major Countries, in such case irrespective of where such product is made, sold or used and irrespective of whether such product is covered by a Valid Claim in the country where sold.

1.5 Major Countries. The term "Major Countries" shall mean France, Germany, Italy and the United Kingdom.

1.6 Net Sales. The term "Net Sales" shall mean the total amount invoiced to third parties on sales of Licensed Products by Licensee, its Affiliates, or Sublicensees, for which royalties are due under Article 3 below, less the following reasonable and customary deductions to the extent applicable to such invoiced amounts: (i) all trade, cash and quantity credits, discounts, refunds or government rebates; (ii) amounts for claims, allowances or credits for returns, retroactive price reductions, or chargebacks; (iii) packaging, handling fees and prepaid freight, sales taxes, duties and other governmental charges (including value added tax); and (iv) provisions for uncollectible accounts determined in accordance with reasonable accounting practices, consistently applied to all

products of the selling party; provided, however, that in the case of Patient-Specific Licensed Products, "Net Sales" shall equal thirty percent (30%) of the foregoing amounts (after the deductions described in (i) through (iv) above). For purposes of the foregoing, it is understood that Net Sales shall include only the amount invoiced for materials consisting of Licensed Products (less the foregoing deductions and adjustments) and shall not include charges related to services (other than cell separation and expansion) performed in connection with the sale of such Licensed Products; accordingly, Net Sales shall not include, without limitation, charges for apheresis, reinfusion, surgical procedures, hospital stays or the like. For the removal of doubt, Net Sales shall not include sales by Licensee to its Affiliates for resale, provided that if Licensee sells a Licensed Product to an Affiliate for resale, Net Sales shall include the amounts invoiced by such Affiliate to third parties on the resale of such Licensed Product. In the event that Licensee grants a sublicense hereunder, and receives payments based upon the Sublicensee's sales of Licensed Products, Licensee may upon approval by Scripps, which approval shall not be unreasonably withheld, substitute the definition of "Net Sales," used by the Sublicensee to calculate payments to Licensee in place of the foregoing definition of "Net Sales" for purposes of calculating royalties payable to Scripps on such Sublicensee's sales.

1.7 Patient-Specific Licensed Product. The term "Patient-Specific Licensed Product shall mean a Licensed Product that includes either (i) autologous cells from the patient; or (ii) nonautologous cells that otherwise are not intended for use in all patients (such as Licensed Products that are fetal cells expressing an HLA-type compatible with the particular patient but not optimally compatible with patients who have a different HLA type).

1.8 Scripps Patent Rights. The term "Scripps Patent Rights" shall mean all rights resulting from:

(a) all worldwide patent and patent applications claiming the Scripps Technology described in Exhibit A hereto (the "Existing Patents"); and

(b) all divisions, continuations, continuations-in-part, patents of addition, and substitutions of the Existing Patents, together with all registrations, reissues, reexaminations or extensions of any kind with respect to any of the foregoing patents to the extent the same claim Scripps Technology.

From time to time during the term of this Agreement the parties agree to record and update on Exhibit B all patents and patent applications within the Scripps Patent Rights

In the event that Scripps and Licensee are joint owners of an invention by reason of the fact that personnel of both Scripps and Licensee are joint inventors of such invention, it is understood that the Scripps Patent Rights include only Scripps' rights as a joint owner of the patent applications and patents that claim such joint invention.

1.9 Scripps Technology. The term "Scripps Technology" shall mean so much of the technology as is proprietary to Scripps that was developed in performance of the Research Program and in the disclosure provided to Licensee pursuant to Section 3.2 or 3.3 of the Research

Agreement, a copy of which is attached as Exhibit A hereto and incorporated herein by reference, together with materials, information and know-how related thereto from the Research Program as described Exhibit A whether or not the same is eligible for protection under the patent laws of the United States or elsewhere, and whether or not any such processes and technology, or information related thereto, would be enforceable as a trade secret or the copying of which would be enjoined or restrained by a court as constituting unfair competition.

1.10 Sublicensee. The term "Sublicensee" shall mean any non-Affiliate third party to whom Licensee has granted the right to manufacture and sell Licensed Products, with respect to Licensed Products made and sold by such third party.

1.11 Valid Claim. The term "Valid Claim" shall mean a claim of an issued and unexpired patent or a claim of a pending patent application within the Scripps Patent Rights which has not been held unpatentable, invalid or unenforceable by a court or other government agency of competent jurisdiction and has not been admitted to be invalid or unenforceable through reissue, reexamination, disclaimer or otherwise; provided, however, that if the holding of such court or agency is later reversed by a court or agency with overriding authority, the claim shall be reinstated as a Valid Claim with respect to Net Sales made after the date of such reversal. Notwithstanding the foregoing provisions of this Section 1.11, if a claim of a pending patent application within the Scripps Patent Rights has not issued as a claim of an issued patent within the Scripps Patent Rights, within five (5) years after the filing date from which such claim takes priority, such pending claim shall not be a Valid Claim for purposes of this Agreement.

2. License Terms and Conditions.

2.1 Grant of License.

(a) Scripps hereby grants to Licensee an exclusive, worldwide license, including the right to sublicense, to: make, use, sell, import, export or otherwise distribute Licensed Products; practice any method, process or procedure, and otherwise exploit the Scripps Patent Rights; and to have any of the foregoing performed on its behalf by a third party, in each case solely within the Field, subject to the terms of this Agreement.

(b) Scripps hereby grants to Licensee a non-exclusive, worldwide license, including the right to sublicense to and under the Scripps Technology for the purpose of exercising its rights and licenses under the Scripps Patent Rights.

2.2 Royalties. In consideration for the exclusive license granted pursuant to Section 2.1 hereof, Licensee shall pay to Scripps a continuing royalty the following percentages of Net Sales of each Licensed Product by Licensee, its Affiliates and Sublicensees: (i) two percent (2%) of Net Sales in Patent Countries and (ii) one percent (1%) in Non-Patent Countries. For purposes of calculating royalties due hereunder, a "Patent Country" shall mean, with respect to a particular Licensed Product, a country in which at the time of the sale of such Licensed Product in such country, the manufacture, use or sale of such Licensed Product would infringe a Valid Claim in

such country; and a "Non-Patent Country" shall mean, with respect to such Licensed Product, a country which a the time of sale of such Licensed Product in such country is not a Patent Country.

2.3 Milestone Payments. As additional consideration for the exclusive license granted pursuant to Section 2.1 hereof, Licensee agrees to pay to Scripps upon the first occurrence of each milestone specified below for the first Licensed Product to meet such milestone:

	MILESTONES	PAYMENT
1.	First initiation of Phase II Trials for the first Licensed Product.	$50,000
2.	First initiation of Phase III Trials for the first Licensed Product.	$125,000
3.	First receipt of government approval to market and distribute the first Licensed Product in the United States or the first Major Country.	$250,000

For purposes of the foregoing milestones, "Phase II Trials" shall mean that portion of the clinical studies for the FDA submission and approval process which provides for the initial trials of a Licensed Product for the purposes of determining the efficacious therapeutic dose range and evaluating safety in the proposed therapeutic indication as more fully defined in 21 C.F.R. ss. 312.21(b), or a similar clinical study in a country other than the United States; and "Phase III Trials" shall mean that portion of the clinical studies for the FDA submission and approval process which provides for trials of a Licensed Product on sufficient numbers of patients to establish the safety and efficacy of such Licensed Product to support regulatory approval in the proposed application as more fully defined in 21 C.F.R. ss. 3122.21(c), or similar clinical study in a country other than the United States.

2.4 Combination Products.

2.4.1 Definition of Combination Product. As used herein, the term "Combination Product" shall mean a Licensed Product which cannot be manufactured, used or sold without infringing Scripps Patent Rights licensed hereunder in the country where sold which is sold with another product, component or service for which no royalty would be due hereunder if sold separately.

2.4.2 Royalty Payable on Combination Products. The royalty payable on Combination Products shall be the royalty rate set forth in Section 2.2 above based on a pro rata portion of Net Sales of Combination Products in accordance with the following formula:

$$X = \frac{A}{-}$$

A + B, where

X = the pro rata portion of Net Sales attributable to Scripps Patent Rights or other Scripps Technology licensed herein (expressed as a percentage), and

A = the fair market value of the Licensed Product component, and

B = the fair market value of all other components (product, component or service) in the Combination Product.

The fair market values described above shall be determined by the parties hereto in good faith. Notwithstanding the foregoing, in the event that there is no separate fair market values of the Licensed Product and such other product(s), component(s) and/or services(s), then the Net Sales shall be as reasonably allocated by Licensee between such Licensed Product and such other product(s), component(s) and/or service(s), based upon their relative importance and proprietary position, subject to the consent of Scripps, which consent shall not be unreasonably withheld.

2. 5 Multiple Royalties. If Licensee, its Affiliate or Sublicensee is required to pay a non-Affiliate third party amounts with respect to a Licensed Product under agreements for patent rights or other technologies which Licensee, its Affiliate or Sublicensee, in its reasonable judgment, determines are necessary or desirable to license or acquire with respect to such Licensed Product, Licensee may deduct such amount owing to such non-Affiliate third parties (prior to any reductions) from the royalty owing to Scripps for the sale of such Licensed Product pursuant to Section 2.2 above. Notwithstanding the foregoing provisions of this Section 2.5, in no event shall the royalties due to Scripps pursuant to Section 2.2 above be so reduced to less than fifty percent (50%) of the amount that would otherwise be due Scripps thereunder.

2.6 Quarterly Payments.

2.6.1 Sales by Licensee. With regard to Net Sales made by Licensee or its Affiliates, royalties shall be payable by Licensee quarterly, within sixty (60) days after the end of each calendar quarter, based upon the Net Sales of Licensed Products during such preceding calendar quarter, commencing with the calendar quarter in which the first commercial sale of any Licensed Product is made.

2.6.2 Sales by Sublicensees. With regard to Net Sales made by Sublicensees of Licensee or its Affiliates, royalties shall be payable by Licensee quarterly, within ninety (90) days after the end of each calendar quarter, based upon the Net Sales of Licensed Products by such Sublicensee during such preceding calendar quarter, commencing with the calendar quarter in which the first commercial sale of any Licensed Product is made by such Sublicensee.

2. 7 Term of License. Unless terminated sooner in accordance with the provisions of this Agreement, the term of this license shall expire when the last of the royalty obligations set forth has expired (i.e., until expiration, revocation or invalidation of the last patent or the abandonment of the

last application within the Scripps Patent Rights, whichever is later). Notwithstanding the foregoing, if applicable government regulations require a shorter term and/or a shorter term of exclusivity than provided for herein, then the term of this License Agreement shall be so shortened or this License Agreement shall be amended to provide for a non-exclusive license, and, in such event, the parties shall negotiate in good faith to reduce appropriately the royalties payable as set forth under the section heading "Royalties" hereof. Notwithstanding anything herein to the contrary, Licensee's license under Section 2.1(b) with respect to the Scripps Technology shall survive the expiration, (but not an earlier termination, except as provided in Section 8.6 below) of this Agreement.

2.8 Sublicense. Licensee shall have the sole and exclusive right to grant sublicenses to any party with respect to the rights conferred upon Licensee under this Agreement, provided, however, that any such sublicense shall be subject in all respects to the restrictions, exceptions, royalty obligations, reports, termination provisions, and other provisions contained in this Agreement. Without limiting the foregoing, Licensee agrees to provide Scripps a copy of each such sublicense agreement within thirty (30) days of the execution thereof. Licensee shall pay Scripps, or cause its Affiliate or Sublicensee to pay Scripps, the same royalties on all Net Sales of such Affiliate or Sublicensee the same as if said Net Sales had been made by Licensee. Each Affiliate and Sublicensee shall report its Net Sales to Scripps through Licensee, which Net Sales shall be aggregated with any Net Sales of Licensee for purposes of determining the Net Sales upon which royalties are to be paid to Scripps.

2.9 Reports. Licensee shall furnish to Scripps at the same time as each royalty payment is made by Licensee, a detailed written report of Net Sales of the Licensed Products and the royalty due and payable thereon, including a description of any offsets or credits deducted therefrom, on a product-by-product and country-by-country basis, for the calendar quarter upon which the royalty payment is based.

2.10 Records. Licensee shall keep, and cause its Affiliates and Sublicensees to keep, full, complete and proper records and accounts of all sales of Licensed Products in sufficient detail to enable the royalties payable on Net Sales of each Licensed Product to be determined. Scripps shall have the right to appoint an independent certified public accounting firm approved by Licensee, which approval shall not be unreasonably withheld, to audit the records of Licensee, its Affiliates and Sublicensees as necessary to verify the royalties payable pursuant to this Agreement. Licensee, its Affiliates and Sublicensees shall pay to Scripps an amount equal to any additional royalties to which Scripps is entitled as disclosed by the audit, plus interest thereon at the rate of one and one-half percent (1.5%) per month. Such audit shall be at Scripps' expense; provided, however, that if the audit discloses that Scripps was underpaid royalties with respect to the period covered by the audit by at least five percent (5%), then Licensee, its Affiliates or Sublicensee, as the case may be, shall reimburse Scripps for all reasonable out-of-pocket audit costs. Scripps may exercise its right of audit as to each of Licensee, its Affiliates or Sublicensees no more frequently than once in any calendar year. The accounting firm shall disclose to Scripps only information relating to the accuracy of the royalty payments. Licensee, its Affiliates and Sublicensees shall preserve and maintain all such records required for audit for a period of three (3) years after the calendar quarter to which the record applies.

2.11 Foreign Sales. The remittance of royalties payable on sales outside the United States shall be payable to Scripps in United States Dollar equivalents at the official rate of exchange of the currency of the country from which the royalties are payable, as quoted in the Wall Street Journal for the last business day of the calendar quarter in which the royalties are payable. If the transfer of or the conversion into the United States Dollar equivalents of any such remittance in any such instance is not lawful or possible, the payment of such part of the royalties as is necessary shall be made by the deposit thereof, in the currency of the county where the sale was made on which the royalty was based to the credit and account of Scripps or its nominee in any commercial bank or trust company of Scripps' choice located in that country, prompt written notice of which shall be given by Licensee to Scripps and except as set forth in Section 2.10 above, Licensee shall have no further obligation with respect to such royalties.

2.12 Foreign Taxes. Any tax required to be withheld by Licensee under the laws of any foreign country for the accounts of Scripps shall be promptly paid by Licensee for and on behalf of Scripps to the appropriate governmental authority, and Licensee shall use its best efforts to furnish Scripps with proof of payment of such tax together with official or other appropriate evidence issued by the applicable government authority. Any such tax actually paid on Scripps' behalf shall be deducted from royalty payments due Scripps hereunder.

2.13 Single Payments. The parties hereto acknowledge that the parties may enter into multiple license agreements with respect to technologies arising out of the Research Agreement, including this Agreement (collectively, the "Scripps License Agreements") pursuant to which Licensee will owe royalties and milestone payments. Notwithstanding anything herein to the contrary, with respect to any unit of Licensed Product only a single royalty shall be due to Scripps at the highest applicable rate for such unit regardless if such Licensed Product is covered by more than one Valid Claim or would be a Licensed Product under more than one Scripps License Agreement. (For example, if a product sold by Licensee is a Licensed Product under this Agreement for which Licensee owes Scripps a royalty of 2% of Net Sales and Licensee would otherwise owe Scripps a royalty of 1% of Net Sales of such product under another Scripps License Agreement, Licensee's royalty obligation to Scripps shall be fulfilled by paying Scripps 2% of Net Sales with respect to sales of such License Product.) Likewise, with respect to the milestone payments under Section 2.3 above, once such milestone payment has been paid for a Licensed Product under any Scripps License Agreement then Licensee's obligation to pay such milestone shall be deemed to be fulfilled with respect to all Scripps License Agreement, regardless of whether the product for which such a milestone payment was paid was a "Licensed Product" for purposes of a particular Scripps License Agreement or not. (For example, if a Licensee initiates Phase II Trials for a product, which product falls within the definition of "Licensed Product" under this Agreement and pays Scripps the corresponding $50,000 payment, Licensee shall have no further obligation to pay any amounts to Scripps with respect to any other product under any Scripps License Agreement upon the initiation of Phase II Trials for a Licensed Product whether or not the product for which Licensee initially paid such milestone payment is a Licensed Product for purposes of any other Scripps License Agreement.)

3. Patent Matters.

3.1 Patent Prosecution and Maintenance. From and after the date of this Agreement, the provisions of this Section 3 shall control the prosecution and maintenance of any patent or patent application included within Scripps Patent Rights. Subject to the requirements, limitations and conditions set forth in this Agreement, Scripps shall direct and control (i) the preparation, filing and prosecution of the United States and foreign patent applications within Scripps Patent Rights (including any interferences and foreign oppositions) and (ii) maintain the patents issuing therefrom. Scripps shall select the patent attorney, subject to Licensee's written approval, which approval shall not be unreasonably withheld. Both parties hereto agree that Scripps may, at its sole discretion, utilize Scripps' Office of Patent Counsel in lieu of outside counsel for patent prosecution and maintenance described herein, and the fees and expenses incurred by Scripps with respect to work done by such Office of Patent Counsel shall be paid as set forth below. Licensee shall have full rights of consultation with the patent attorney so selected on all matters relating to Scripps Patent Rights. Scripps shall use its best efforts to implement all reasonable requests made by Licensee with regard to the preparation, filing, prosecution and/or maintenance of the patent applications and/or patents within Scripps Patent Rights.

3.2 Information to Licensee. Scripps agrees to use reasonable efforts to (i) keep Licensee informed as to the filing, prosecution and maintenance of patents and patent applications within the Scripps Patent Rights, (ii) furnish to Licensee copies of documents relevant to any such filing, prosecution and maintenance and (iii) allow Licensee reasonable opportunity to comment on documents filed with any patent office which would affect the Scripps Patent Rights or Licensee' rights hereunder.

3.3 Patent Costs. Licensee acknowledges and agrees that Scripps does not have independent funding to cover patent costs, and that the license granted hereunder is in part in consideration for Licensee's assumption of patent costs and expenses as described herein. Licensee shall pay for all expenses incurred by Scripps pursuant to Section 3.1 hereof. In addition, Licensee agrees to reimburse Scripps for all patent costs and expenses paid or incurred by Scripps to date inconnection with Scripps Patent Rights licensed hereunder. Licensee agrees to pay all such past and future patent expenses directly or to reimburse Scripps for the payment of such expenses within sixty (60) days after Licensee receives an itemized invoice therefor. In the event Licensee elects to discontinue payment for the filing, prosecution and/or maintenance of any patent application and/or patent within Scripps Patent Rights, any such patent application or patent shall be excluded from the definition of Scripps Patent Rights and from the scope of the license granted under this Agreement, and all rights relating thereto shall revert to Scripps and may be freely licensed by Scripps. Licensee shall give Scripps at least sixty (60) days' prior written notice of such election. No such notice shall have any effect on Licensee's obligations to pay expenses incurred up to the effective date of such election.

3.4 Ownership. Subject to any joint or mutual ownership of Licensee by virtue of joint inventorship of inventions covered therein, the patent applications filed and patent applications obtained by Scripps pursuant to Section 3.1 hereof shall be owned solely by Scripps, assigned to Scripps and deemed a part of Scripps Patent Rights.

3.5 Scripps Right to Pursue Patent. If at any time during the term of this Agreement, Licensee's rights with respect to Scripps Patent Rights are terminated, Scripps shall have the right to take whatever action Scripps deems appropriate to obtain or maintain the corresponding patent protection at its own expense. If Scripps pursues patents under this Section 3.5, Licensee agrees to cooperate fully, including by providing, at no charge to Scripps, all appropriate technical data and executing all necessary legal documents.

3.6 Prosecution by Licensee. If Scripps elects not to file, prosecute or maintain any patent application or patent within the Scripps Patent Rights or pay any fee related thereto, in any country Scripps shall promptly notify Licensee of such election, but in no case later than sixty (60) prior to any required action relating to the filing, prosecution or maintenance of such patent application or patent. In such event, if Licensee elects to take over the filing, prosecution and/or maintenance of one or more patents or patent applications within the Scripps Patent Rights, Licensee shall have the right, at its option, to control the filing, prosecution and/or maintenance of any such patent applications or patents within the Scripps Patent Rights at its own expense. In which case Licensee shall keep Scripps reasonably informed on matters regarding such filing, prosecution and maintenance.

3.7 Infringement.

3 .7.1 Enforcement. If either party determines that a third party is making, using or selling a product that may infringe the Scripps Patent Rights, that party shall notify the other party in writing.

(a) Licensee shall have the first right (itself or through others), at its sole option, to bring suit to enforce the Scripps Patent Rights, and/or to defend any declaratory judgment action with respect thereto, in each case with respect to the manufacture, sale or use of a product within the Field; provided, however, that Licensee shall keep Scripps reasonably informed as to the defense and/or settlement of such action. Scripps shall have the right to participate in any such action with counsel of its own choice at its own expense.

(b) In the event Licensee elects not to initiate an action to enforce the Scripps Patent Rights against a commercially significant infringement by a third party within the Field, within one (1) year of a request by Scripps to do so, (or within such shorter period which may be required to preserve the legal rights of Scripps under the laws of the relevant government), Scripps may initiate such action at its expense with Licensee's prior written consent, which consent shall not be unreasonably withheld. Licensee shall have the right to participate in any such action with counsel of its own choice at its own expense.

(c) All recoveries received by a party from an action to enforce the Scripps Patent Rights shall be first applied to reimburse the controlling party's and then the non-controlling party's unreimbursed expenses, including without limitation, reasonable attorney's fees and court costs. Any remainder shall, to the extent the same pertains to an infringement of the Scripps Patent Rights, be divided seventy percent (70%) to Licensee and thirty percent (30%) to Scripps.

3.7.2 Defense. If Licensee, its Affiliate, Sublicensee, distributor or other customer is sued by a third party charging infringement of patent rights that dominate a claim of the Scripps Patent Rights or that cover other Related Material with respect to the manufacture, use, distribution or sale of a Licensed Product, Licensee will promptly notify Scripps. As between the parties to this Agreement, Licensee will be entitled to control the defense in any such action(s) and withhold one-half (1/2) of the royalties related to such Licensed Product otherwise payable to Scripps and use the withheld royalties to reimburse the legal defense costs, attorneys' fees and liability incurred in such infringement suit(s). Notwithstanding the foregoing, Licensee agrees to withhold only that portion of such royalties as may reasonably be necessary to reimburse amounts in accordance with this Section 3.7.2. If Licensee is required to pay a royalty to a third party to make and/or sell a Licensed Product as a result of a final judgment or settlement, such amounts may be deducted from the running royalties payable to Scripps hereunder in relation to such Licensed Product; provided that such royalties shall not be so reduced by more than fifty percent (50%). Subject to the provisions of Section 4.3 below, Licensee agrees to indemnify and hold Scripps harmless from any costs, expenses or liability arising out of all such infringements or charges of infringement.

3.7.3 Cooperation. In any suit, action or other proceeding in connection with enforcement and/or defense of the Scripps Patent Rights, each party hereto agrees to cooperate fully, including without limitation by joining as a party plaintiff and executing such documents as the other party may reasonably request. Without limiting the foregoing, upon the request of and, at the expense of a party controlling any suit, action or other proceeding pursuant to this Article 3, the other party shall make available at reasonable times and under appropriate conditions all relevant personnel, records, papers, information, samples, specimens and other similar materials in such other party's possession.

3.7.4 No Implied Obligations. Except as expressly provided in this Section 3.7, neither party has any obligation to bring or prosecute actions or suits against any third party for patent infringement.

4. Obligations Related to Commercialization.

4.1 Commercial Development Obligation. In order to maintain the license granted hereunder in force, Licensee shall use reasonable efforts and due diligence to develop Scripps Technology and Scripps Patent Rights which are licensed hereunder into commercially viable Licensed Products, as promptly as is reasonably and commercially feasible, and thereafter to produce and sell reasonable quantities of Licensed Products. Licensee shall keep Scripps generally informed as to Licensee's progress in such development, production and sale, including its efforts, if any, to sublicense Scripps Technology and Scripps Patent Rights, and Licensee shall deliver to Scripps an annual written report and such other reports as Scripps may reasonably request. The parties hereto acknowledge and agree that achievement of mutually agreeable milestones shall be evidence of compliance by Licensee with its commercial development obligations hereunder. Notwithstanding the foregoing, if Licensee believes that it cannot, within the exercise of prudent and reasonable business judgment, perform any mutually agreed upon milestones within the time period required therefor, Licensee may request an extension of time for the performance date to a date that Licensee believes to be reasonable and prudent and Scripps shall agree to any requested

extension which is not more than one (l) year in length from the originally required date and will not unreasonably withhold consent to requests for longer extensions. In the event Scripps has a reasonable basis to believe that Licensee is not using reasonable efforts and due diligence as required hereunder, upon notice by Scripps to Licensee which specifies the basis for such belief, Scripps and Licensee shall negotiate in good faith to attempt to mutually resolve the issue. In the event Scripps and Licensee cannot agree upon any matter related to Licensee's commercial development obligations, the parties agree to utilize arbitration pursuant to Section 10.2 hereof in order to resolve the matter. If the arbitrator determines that Licensee has not complied with its obligations hereunder, and such default is not cured within sixty (60) days after the arbitrator's decision, Scripps may terminate Licensee's rights under this Agreement.

4.2 Governmental Approvals and Marketing of Licensed Products. Licensee shall be responsible for obtaining all necessary governmental approvals for the development, production, distribution, sale and use of any Licensed Product, at Licensee's expense, including, without limitation, any safety studies. Licensee shall have sole responsibility for any warning labels, packaging and instructions as to the use of Licensed Products and for the quality control for any Licensed Product.

4.3 Indemnity. Licensee hereby agrees to indemnify, defend and hold harmless Scripps and any parent, subsidiary or other affiliated entity and their trustees, officers, employees, scientists and agents from and against any liability or expense arising from any product liability claim asserted by any party as to any Licensed Product or any claims arising from the use of any Scripps Patent Rights or Scripps Technology pursuant to this Agreement. Such indemnity and defense obligation shall apply to any product liability or other claims, including without limitation, personal injury, death or property damage, made by employees, subcontractors, sublicensees, or agents of Licensee, as well as any member of the general public. Notwithstanding the foregoing, Licensee's obligation to provide indemnification under this Section 4.3 shall be subject to each party seeking indemnification hereunder (i) promptly notify Licensee in writing of any claim, suit or proceeding with respect to which the party intends to claim such indemnification, (ii) give Licensee sole control of the defense and/or settlement thereof, and (iii) provide Licensee, at Licensee's expense, with reasonable assistance and full information with respect to such claim, suit or proceeding. Licensee shall not settle any claim, suit or proceeding subject to this Section 4.3 or otherwise consent to an adverse judgment in such claim, suit or proceeding if the same materially diminishes the rights or interests of the indemnified party without the express written consent of such party. Licensee shall have no obligation for any claim, suit or proceeding if the party seeking indemnification makes any settlement regarding such claim, suit or proceeding without the prior written consent of Licensee, which consent shall not be unreasonably withheld. Licensee shall use its best efforts to have Scripps and any parent, subsidiary or other affiliated entity and their trustees, officers, employees, scientists and agents named as additional insured parties on any product liability insurance policies maintained by Licensee, its Affiliates and sublicensees applicable to Licensed Products.

4.4 Patent Marking. To the extent required by applicable law, Licensee shall mark all Licensed Products or their containers in accordance with the applicable patent marking laws.

4.5 No Use of Name. Except as required by law, the use of the name "The Scripps Research Institute", " Scripps", or any variation thereof in connection with the advertising or sale of Licensed Products is expressly prohibited.

4.6 U.S. Manufacture. To the extent required by applicable United States laws, if at all, Licensee agrees that Licensed Products will be manufactured in the United States, or its territories, subject to such waivers as may be required, or obtained, if at all, from the United States Department of Health and Human Services, or its designee.

4.7 Foreign Registration. Licensee agrees to register this Agreement with any foreign governmental agency which requires such registration, and Licensee shall pay all costs and legal fees in connection therewith. In addition, Licensee shall assure that all foreign laws affecting this Agreement or the sale of Licensed Products are fully satisfied.

5. Limited Warranty. Scripps hereby represents and warrants that subject to the rights of the United States Government (i) it has sole right and power to enter into this Agreement and grant the rights and licenses granted herein; (ii) Scripps is and shall be the owner of the entire right, title, and interest in and to the Scripps Patent Rights; (iii) Scripps has not previously granted and will not grant any rights in the Scripps Patent Rights that are inconsistent with the rights and licenses granted to Licensee herein; and (iv) to the best of its knowledge, there are no claims of third parties that would call into question the rights of Scripps to grant to Licensee the rights contemplated hereunder. EXCEPT AS PROVIDED IN THIS SECTION 5, NEITHER PARTY MAKES ANY WARRANTIES OR CONDITIONS (EXPRESS, IMPLIED, STATUTORY OR OTHERWISE) WITH RESPECT TO THE SUBJECT MATTER HEREOF. SPECIFICALLY, SCRIPPS MAKES NO OTHER WARRANTIES CONCERNING SCRIPPS PATENT RIGHTS OR SCRIPPS TECHNOLOGY COVERED BY THIS AGREEMENT, INCLUDING WITHOUT LIMITATION, ANY EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AS TO SCRIPPS PATENT RIGHTS, SCRIPPS TECHNOLOGY OR ANY LICENSED PRODUCT. SCRIPPS MAKES NO WARRANTY OR REPRESENTATION AS TO THE VALIDITY OR SCOPE OF SCRIPPS PATENT RIGHTS, OR THAT ANY LICENSED PRODUCT WILL BE FREE FROM AN INFRINGEMENT ON PATENTS OR OTHER INTELLECTUAL PROPERTY RIGHTS OF THIRD PARTIES, OR THAT NO THIRD PARTIES ARE IN ANY WAY INFRINGING SCRIPPS PATENT RIGHTS OR SCRIPPS TECHNOLOGY COVERED BY THIS AGREEMENT.

6. Interests in Intellectual Property Rights.

6.1 Preservation of Title. Scripps shall retain full ownership and title to Scripps Technology, and Scripps Patent Rights licensed hereunder and shall use its reasonable best efforts to preserve and maintain such full ownership and title, subject to Licensee fully performing all of its obligations under this Agreement.

6.2 Royalty-free License to Improvements. Licensee hereby grants to Scripps a non-exclusive, royalty-free license to any improvement to Scripps Technology developed by Licensee

during the term of this Agreement, to use for Scripps own non-commercial research purposes or grant to other nonprofit institutions for their non-commercial research purposes.

6.3 Governmental Interest. Licensee and Scripps acknowledge that Scripps has received, and expects to continue to receive, funding from the United States Government in support of Scripps' research activities. Licensee and Scripps acknowledge and agree that their respective rights and obligations pursuant to this Agreement shall be subject to Scripps' obligations and the rights of the United States Government, if any, which arise or result from Scripps' receipt of research support from the United States Government, including without limitation, the grant by Scripps to the United States a non-exclusive, irrevocable, royalty-free license to Scripps Technology and Scripps Patent Rights licensed hereunder for governmental purposes.

6.4 Reservation of Rights. Scripps reserves the right to use for any non-commercial research purposes and the right to allow other nonprofit institutions to use for any non-commercial research purposes any Scripps Technology and Scripps Patent Rights licensed hereunder, without Scripps or such other institutions being obligated to pay Licensee any royalties or other compensation.

7. Confidentiality and Publication.

7.1 Treatment of Confidential Information. The parties agree that during the term of this Agreement and for ten (10) years thereafter, a party receiving Confidential Information of the other party will (i) maintain in confidence such Confidential Information to the same extent such party maintains its own proprietary industrial information, (ii) not disclose such Confidential Information to any third party without prior written consent of the other party and (iii) not use such Confidential Information for any purpose except those permitted by this Agreement.

7.2 Permitted Usage. Notwithstanding the provisions of Section 7.1 above, the receiving party may use or disclose Confidential Information of the disclosing party to the extent necessary to exercise its rights hereunder (including commercialization and/or sublicensing of Scripps Patent Rights and Scripps Technology) or fulfill its obligations and/or duties hereunder and in filing for, prosecuting or maintaining any proprietary rights, prosecuting or defending litigation, complying with applicable governmental regulations and/or submitting information to tax or other governmental authorities; provided that if the receiving party is required by law to make any public disclosures of Confidential Information of the disclosing party, to the extent it may legally do so, it will give reasonable advance notice to the disclosing party of such disclosure and will use its reasonable efforts to secure confidential treatment of Confidential Information prior to its disclosure (whether through protective orders or otherwise).

7.3 Publications. Licensee agrees that Scripps shall have a right to publish in accordance with its general policies and subject to Section 6.2 of the Research Agreement.

7.4 Publicity. Except as otherwise provided herein or required by law, no party shall originate any publication, news release or other public announcement, written or oral, whether in the public press, stockholders' reports, or otherwise, relating to this Agreement or to any sublicense

hereunder, or to the performance hereunder or any such agreements, without the prior written approval of the other party, which approval shall not be unreasonably withheld. Scientific publications published in accordance with Section 7.3 of this Agreement shall not be construed as publicity governed by this Section 7.4.

8. Term and Termination.

8.1 Term. Unless terminated sooner in accordance with the terms set forth herein, this Agreement, and the license granted hereunder, shall terminate as provided in Section 2.7 hereof.

8.2 Termination Upon Default. Any one or more of the following events shall constitute an event of default hereunder: (i) the failure of a party to pay any amounts when due hereunder and the expiration of thirty (30) days after receipt of a written notice requesting the payment of such amount; (ii) the failure of a party to perform any material obligation required of its to be performed hereunder, and the failure to cure within sixty (60) days after receipt of notice from the other party specifying in reasonable detail the nature of such default. Upon the occurrence of any event of default, the non-defaulting party may deliver to the defaulting party written notice of intent to terminate, such termination to be effective upon the date set forth in such notice.

Such termination rights shall be in addition to and not in substitution for any other remedies that may be available to the non-defaulting party. Termination pursuant to this Section 8.2 shall not relieve the defaulting party from liability and damages to the other party for breach of this Agreement. Waiver by either party of a single default or a succession of defaults shall not deprive such party of any right to terminate this Agreement arising by reason of any subsequent default.

Notwithstanding the foregoing provisions of this Section 8.2, if the party alleged to be in default of this Agreement disputes in good faith such default within the applicable cure period, the other party's right to terminate shall be stayed until it has been determined in accordance with Section 10.2 below of this Agreement that the party alleged to be in default was actually in default and such defaulting party fails to comply with its obligations hereunder within the applicable cure period.

8.3 Termination Upon Bankruptcy or Insolvency. This Agreement may be terminated by Scripps giving written notice of termination to Licensee upon the filing of bankruptcy or bankruptcy of Licensee or the appointment of a receiver of any of Licensee's assets, or the making by Licensee of any assignment for the benefit of creditors, or the institution of any proceedings against Licensee under any bankruptcy law which proceeding is not dismissed with prejudice within ninety (90) days from its initiation. Termination shall be effective upon the date specified in such notice.

8.4 Termination by Licensee. Any provision herein notwithstanding, Licensee may terminate this Agreement, in its entirety or as to any particular patent or patent application within the Scripps Patent Rights, or as to any particular Licensed Product, at any time by giving Scripps at least ninety (90) days prior written notice. From and after the effective date of a termination under this Section 8.4 with respect to a particular patent or application, such patent(s) and patent

application(s) in the particular country shall cease to be within the Scripps Patent Rights for all purposes of this Agreement, and all rights and obligations of Licensee with respect to such patent(s) and patent application(s) shall terminate. From and after the effective date of a termination under this Section 8.3 with respect to a particular Licensed Product, the license granted under Section 2.1 above shall terminate with respect to such Licensed Product, and the same shall cease to be a Licensed Product for all purposes of this Agreement. Upon a termination of this Agreement in its entirety under this Section 8.4, all rights and obligations of the parties shall terminate, except as provided in Section 8.5 below.

8.5 Rights Upon Expiration. Neither party shall have any further rights or obligations upon the expiration of this Agreement upon its regularly scheduled expiration date with respect to this Agreement, other than the obligation of Licensee to make any and all reports and payments for the final quarter period. Provided, however, that upon such expiration, each party shall be required to continue to abide by its non-use and non-disclosure obligations as described in Section 7.1, and Licensee shall continue to maintain records under Section 2.10 and abide by its obligation to indemnify Scripps as described in Section 4.3 and by its obligations under Section 6.2 hereof.

8.6 Rights Upon Termination.

8.6.1 Accrued Obligations. Termination of this Agreement for any reason shall not release either party hereto from any liability which at the time of such termination has already accrued to the other party.

8.6.2 Inventory. In the event this Agreement is terminated for any reason, Licensee shall provide Scripps with a written inventory of all Licensed Products that Licensee and its Affiliates have in process of manufacture, in use or in stock and Licensee and its Affiliates shall have the right to sell or otherwise dispose of such Licensed Products for a period not to exceed six (6) months from the effective date of such termination, all subject to the payment to Scripps royalties and provision of reports pursuant to this Agreement.

8.6.3 Sublicenses. Upon termination of this Agreement by Scripps for any reason, any sublicense granted by Licensee hereunder shall survive, provided that upon request by Scripps, such Sublicensee promptly agrees in writing to be bound by the applicable terms of this Agreement.

8.6.4 Survival. Sections 2.10, 4.3, 6.2, 7.1 and 10 shall survive any termination of this Agreement. Except as otherwise provided in this Section 8, all rights and obligations of the parties under this Agreement shall terminate upon termination of this Agreement.

9. Assignment; Successors.

9.1 Assignment. Neither this Agreement nor any rights granted hereunder may be assigned or transferred by Licensee except (i) to an Affiliate of Licensee or (ii) to a successor in interest to all or substantially all of the business assets of Licensee, whether by way of a merger, consolidation, sale of all or substantially all of Licensee's assets, change of control or similar transaction, without the prior written consent of Scripps.

9.2 Binding Upon Successors and Assigns. Subject to the limitations on assignment herein, this Agreement shall be binding upon and inure to the benefit of any successors in interest and assigns of Scripps and Licensee. Any such successor or assignee of Licensee's interest shall expressly assume in writing the performance of all the terms and conditions of this Agreement to be performed by Licensee.

10. General Provisions.

10.1 Independent Contractors. The relationship between Scripps and Licensee is that of independent contractors. Scripps and Licensee are not joint venturers, partners, principal and agent, master and servant, employer or employee, and have no other relationship other than independent contracting parties. Scripps and Licensee shall have no power to bind or obligate each other in any manner, other than as is expressly set forth in this Agreement.

10.2 Arbitration. Any controversy or claim arising out of or relating to this Agreement, or the breach thereof, shall be settled by binding arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("AAA"), and the procedures set forth below. In the event of any inconsistency between the Rules of AAA and the procedures set forth below, the procedures set forth below shall control. Judgment upon the award rendered by the arbitrators may be enforced in any court having jurisdiction thereof.

10.2.1 Location. The location of the arbitration shall be in the County of San Diego in the State of California.

10.2.2 Selection of Arbitrators. The arbitration shall be conducted by a panel of three neutral arbitrators who are independent and disinterested with respect to the parties, this Agreement, and the outcome of the arbitration. Each party shall appoint one neutral arbitrator, and these two arbitrators so selected by the parties shall then select the third arbitrator. If one party has given written notice to the other party as to the identity of the arbitrator appointed by the party, and the party thereafter makes a written demand on the other party to appoint its designated arbitrator within the next ten days, and the other party fails to appoint its designated arbitrator within ten days after receiving said written demand, then the arbitrator who has already been designated shall appoint the other two arbitrators.

10.2.3 Discovery. Unless the parties mutually agree in writing to some additional and specific pre-hearing discovery, the only pre-hearing discovery shall be (a) reasonably limited production of relevant and non-privileged documents, and (b) the identification of witnesses to be called at the hearing, which identification shall give the witness's name, general qualifications and position, and a brief statement as to the general scope of the testimony to be given by the witness. The arbitrators shall decide any disputes and shall control the process concerning these pre-hearing discovery matters. Pursuant to the Rules of AAA, the parties may subpoena witnesses and documents for presentation at the hearing.

10.2.4 Case Management. Prompt resolution of any dispute is important to both parties; and the parties agree that the arbitration of any dispute shall be conducted expeditiously. The arbitrators are instructed and directed to assume case management initiative and control over the arbitration process (including scheduling of events, pre-hearing discovery and activities, and the conduct of the hearing), in order to complete the arbitration as expeditiously as is reasonably practical for obtaining a just resolution of the dispute.

10.2.5 Remedies. The arbitrators may grant any legal or equitable remedy or relief that the arbitrators deem just and equitable, to the same extent that remedies or relief could be granted by a state or federal court, provided however, that no punitive damages may be awarded. No court action may be maintained seeking punitive damages. The decision of any two of the three arbitrators appointed shall be binding upon the parties.

10.2.6 Expenses. The expenses of the arbitration, including the arbitrators' fees, expert witness fees, and attorney's fees, may be awarded to the prevailing party, in the discretion of the arbitrators, or may be apportioned between the parties in any manner deemed appropriate by the arbitrators. Unless and until the arbitrators decide that one party is to pay for all (or a share) of such expenses, both parties shall share equally in the payment of the arbitrators' fees as and when billed by the arbitrators.

10.2.7 Confidentiality. Except as set forth below, the parties shall keep confidential the fact of the arbitration, the dispute being arbitrated, and the decision of the arbitrators. Notwithstanding the foregoing, the parties may disclose information about the arbitration to persons who have a need to know, such as directors, trustees, management employees, witnesses, experts, investors, attorneys, lenders, insurers, and others who may be directly affected. Additionally, if a party has stock which is publicly traded, the party may make such disclosures as are required by applicable securities laws. Further, if a party is expressly asked by a third party about the dispute or the arbitration, the party may disclose and acknowledge in general and limited terms that there is a dispute with the other party which is being (or has been) arbitrated. Once the arbitration award has become final, if the arbitration award is not promptly satisfied, then these confidentiality provisions shall no longer be applicable.

10.3 Entire Agreement Modification. This Agreement sets forth the entire agreement and understanding between the parties as to the subject matter hereof. There shall be no amendments or modifications to this Agreement, except by a written document which is signed by both parties. It is understood that the Research Agreement is separate and independent from this Agreement and termination of either agreement shall not operate to terminate or otherwise effect the rights and obligations of the parties under the other agreement.

10.4 California Law. This Agreement shall be construed and enforced in accordance with the laws of the State of California.

10. 5 Limitation of Liability. NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY OR ANY THIRD PARTY FOR ANY SPECIAL, CONSEQUENTIAL, EXEMPLARY OR INCIDENTAL DAMAGES (INCLUDING LOST OR ANTICIPATED

REVENUES OR PROFITS RELATING TO THE SAME), ARISING FROM ANY CLAIM RELATING TO THIS AGREEMENT, WHETHER SUCH CLAIM IS BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, EVEN IF AN AUTHORIZED REPRESENTATIVE OF SUCH PARTY IS ADVISED OF THE POSSIBILITY OR LIKELIHOOD OF SAME.

10.6 No Implied Obligations. Licensee's sole obligation to exploit the Scripps Patent Rights and Scripps Technology is as set forth in Section 4.1. Nothing in this Agreement shall be deemed to require Licensee to otherwise exploit the Scripps Patent Rights or Scripps Technology nor prevent Licensee from commercializing products similar to or competitive with a Licensed Product.

10.7 Headings. The headings for each article and section in this Agreement have been inserted for convenience of reference only and are not intended to limit or expand on the meaning of the language contained in the particular article or section.

10.8 Severability. Should any one or more of the provisions of this Agreement be held invalid or unenforceable by a court of competent jurisdiction, it shall be considered severed from this Agreement and shall not serve to invalidate the remaining provisions thereof. The parties shall make a good faith effort to replace any invalid or unenforceable provision with a valid and enforceable one such that the objectives contemplated by them when entering this Agreement may be realized.

10.9 No Waiver. Any delay in enforcing a party's rights under this Agreement or any waiver as to a particular default or other matter shall not constitute a waiver of such party's rights to the future enforcement of its rights under this Agreement, excepting only as to an express written and signed waiver as to a particular matter for a particular period of time.

10.10 Name. Whenever there has been an assignment by Licensee as permitted by this Agreement, the term "Licensee" as used in this Agreement shall also include and refer to, if appropriate, such assignee.

10.11 Notices. Any notices required by this Agreement shall be in writing, shall specifically refer to this Agreement and shall be sent by registered or certified airmail, postage prepaid, or by telefax, telex or cable, charges prepaid, or by overnight courier, postage prepaid and shall be forwarded to the respective addresses set forth below unless subsequently changed by written notice to the other party:

For Scripps The Scripps Research Institute
10550 North Torrey Pines Road, TPC-9
La Jolla, California 92037
Attn: Director, Technology Development
Fax No.: (619) 784-9910

For Licensee: StemCells, Inc.

701 George Washington Highway
Lincoln, Rhode Island 02865
Attn: Research Director
Fax No.: (401) 333-0684

with a copy to: CytoTherapeutics, Inc.
701 George Washington Highway
Lincoln, Rhode Island 02865
Attn: General Counsel
Fax No.: (401) 334-9152

Notice shall be deemed delivered upon the earlier of (i) when received, (ii) three (3) days after deposit into the mail, or (iii) the date notice is sent via telefax, telex or cable, (iv) the day immediately following delivery to overnight courier (except Sunday and holidays).

10.12 Compliance with U. S. Laws. Nothing contained in this Agreement shall require or permit Scripps or Licensee to do any act inconsistent with the requirements of any United States law, regulation or executive order as the same may be in effect from time to time.

IN WITNESS WHEREOF, the parties have executed this Agreement by their duly authorized representatives as of the date set forth above.

SCRIPPS:	LICENSEE:
THE SCRIPPS RESEARCH INSTITUTE	STEMCELLS, INC.
By: _____	By: _____
Name: _____	Philip K. Yachmetz
Title: _____	Senior Vice President

EXHIBIT 10.90

EMPLOYMENT AGREEMENT

THIS EMPLOYMENT AGREEMENT is made as of this 8th day of June, 1998 (the "Effective Date"), as amended and restated as of June 8, 1999, by and between CytoTherapeutics, Inc., a Delaware corporation ("Employer") having its principal place of business at 701 George Washington Highway, Lincoln, Rhode Island 02865 and PHILIP K. YACHMETZ ("Employee") with a principal residence at 7 North Koewing Place, West Orange, New Jersey 07052-4014, collectively referred to as the "parties."

RECITALS

Whereas Employer desires to employ Employee at its Lincoln, Rhode Island Facility and Employee desires to be so employed,

The parties enter this Agreement to set forth the terms and conditions of Employee's employment by Employer, to address certain matters related to Employee's employment with Employer, and Employee's loyalty and commitment to Employer.

NOW THEREFORE, in consideration of these promises and the parties' material covenants, representations, and warranties made herein, the parties agree as follows:

STATEMENT OF AGREEMENT

SECTION 1. EMPLOYMENT

a. Position. Employer wishes to employ and Employee hereby accepts the position of Senior Vice President - Business Development, General Counsel and Secretary for the term of this Agreement. Employee shall report directly to Employer's Chief Executive Officer. Such employment shall be at a primary work location in the Northeastern United States (subject to such travel as the Employer may reasonably request).

b. Employee's Commitment. Employee shall consider his employment by Employer as his principal employment, shall devote his full business time and attention to his duties and responsibilities under this Agreement, and shall perform them to the best of his abilities. While subject to any provision of this Agreement, Employee shall maintain loyalty to Employer, and shall take no action that would directly or indirectly promote any competitor or injure Employer's interests. Subject to the foregoing, employee may engage in other charitable or business activities to the extent that they do not interfere or create a conflict with his obligations under this Agreement; provided that Employee first discloses any such activities to Employer, and that Employee's continued participation in any such activity shall be subject to Employer's ongoing approval, which may be withheld at Employer's sole discretion.

c. Duties. Employee's primary duties and responsibilities as Senior Vice President - Business Development, General Counsel and Secretary shall be to:

(1) Direct and oversee all legal matters pertaining to CTI, including contractual relationships, general corporate and securities matters, patent, copyright and the coordination of any legal matters handled by outside counsel.

(2) Direct the research and analysis of such business opportunities, strategic partnerships, alliances and collaborations, including the establishment and recommendation of strategic initiatives as directed by the Employer's CEO from time to time; responsible for implementation of such strategic initiatives of Senior Management as directed by the Employer's CEO from time to time, including the negotiation of agreements related to external alliances, direct the policies and programs related to corporate licensing objectives for the acquisition of licensing opportunities and techniques.

(3) Serve as corporate secretary of the Company and its subsidiaries.

SECTION 2. COMPENSATION, BENEFITS AND EXPENSES

a. Salary. Subject to Subsection 2b, Employer shall pay Employee as salary of Two Hundred Fifty Thousand dollars ($250,000.00) annually, payable in accordance with Employer's payroll practices in effect from time to time.

b. Bonus.

(1) Employee shall receive a "sign on" bonus of Fifteen Thousand Dollars ($15,000) payable, $10,000 in cash and $5,000 in registered shares of Employer's common stock (3,906 shares), calculated at the price per share of $1.28 per share, the closing price of the Employer's common stock as quoted on the Nasdaq stock exchange for the Effective Date of Employment.

(2) In addition, Employee shall be eligible (in the sole discretion of the Employer) to receive performance related bonuses at the end of each calendar year, including 1998, in a percentage amount of base salary similar to that for which other members of the Employer's senior management are eligible or are awarded under guidelines in effect at such time. Employee's bonus shall be based on (i) the reduction in comparable outside legal fees versus the base period of January 1, 1998 through June 30, 1998, (ii) the level of cash funding received by Employer from business development transactions with third parties in which Employee is materially involved, and (iii) the attainment of other specific performance objectives mutually agreed with Employer's Chief Executive Officer. The payment and amount of any such bonus shall be determined in the sole discretion of the Employer and its Board of Directors.

c. Stock Options and Grants. (i) Through the Employer's 1992 Equity Incentive Plan (the "Incentive Plan") and subject to the terms and conditions set forth herein, Employee is hereby granted, as of the Effective Date of this Agreement, an option to acquire 75,000 shares of the common stock of the Employer at a strike price, subject to

the approval of the Employer's Board of Directors, of $1.281 per share, or such other strike price as may be specified by the Board of Directors (the "Time-Based Option"). The time-based option will vest as follows: (A) 30,000 of the shares will vest on the Effective Date, and (B) the remaining 45,000 shares shall vest at the rate of 3,000 shares per month on each monthly anniversary of the Effective Date so long as Employee continues to be employed hereunder. Employee shall have one (1) year from the last such vesting date within which to exercise such option (e.g.: September 10, 2000). The expiration of the Initial Term of this Agreement shall not effect the validity, the vesting schedule or the exercise period of such Time-Based Option granted Employee. (ii) Through the Incentive Plan, upon the approval of the Employer's Board of Directors, Employee is hereby granted a second option to acquire 12,000 shares of the common stock of the Employer at a strike price equal to the closing price for the Employer's Common Stock on the date of the approval of this grant by the Company's Board (the "Time-Based Option II"). The Time-Based Option II will vest at the rate of 1,500 shares per month on the 1st day of each month commencing with September 1, 1999 and ending with April 1, 2000. Employee shall have one (1) year from the Termination Date of this Agreement to exercise the option to purchase the shares subject to the Time-Based Option and the Time-Based Option II (e.g.: April 1, 2001.

The compensation set forth in Sections 2a, 2b and 2c may be increased from time to time at the will and discretion of Employer.

d. Relocation. As soon as reasonably practicable following the Effective Date, Employee will establish his principal office at the Company's offices in Lincoln, Rhode Island and a temporary residence within driving distance of such office. The Employer shall pay or reimburse Employee up to an amount not to exceed $2,500 per month for all costs of such temporary housing and related expenses, including, but not limited to, apartment rent and security deposit, furniture rental, utilities, cable television, basic telephone service and similar expenses, for the term of this Agreement and for such additional period while Employee is still rendering services to the Employer pursuant to Section 4.a.(1) (collectively the "Temporary Residence Period"). Employer shall also during the Temporary Residence Period pay or reimburse Employee for two (2) round trip airfares per month to the New Jersey/New York area for use by Employee or his daughter. Until such time as Employee has established his temporary residence in Rhode Island, Employer shall reimburse Employee for hotel, travel, meal and related costs to and from New Jersey. The cost of Employee's temporary housing and the cost of the two (2) round trips airfares set forth above are hereinafter collectively referred to as the "Temporary Relocation Expenses."

e. Benefits. Employee will be entitled to participate in any and all employee benefit plans from time to time in effect for senior management of the Employer generally, including, but not limited to, medical, dental and hospitalization plans, retirement and 401(k) savings plans, life insurance and accidental death plans, disability plans, etc., except to the extent that such plans provide duplicative benefits or a lower level of benefits than that specifically provided Employee herein. Additionally, Employee shall be entitled to participation similar to that provided other members of Employer's senior management in

any supplemental stock or option grants, stock appreciation rights awards, phantom stock rights, "golden parachute" or "golden handcuff" policies of the Employer in effect as of the Effective Date or adopted by Employer thereafter for the general benefit of its senior management. Employee's participation shall be subject to (i) the terms of the applicable plan documents, (ii) generally applicable policies of the Employer, and (iii) the discretion of the Board of Directors of the Employer and plan administrators, as provided for or contemplated by such plan. Employee will be entitled to four (4) weeks' vacation for the period ending on the first anniversary of this Agreement and two (2) weeks' vacation for the period from the first anniversary of this Agreement through the Termination Date. Employer will provide Employee with a leased automobile at a cost to be approved by Employer's CEO, cover the cost of up to three (3) state bar memberships per year and the cost of professional association memberships consistent with Employer's policy for its senior management.

f. Withholdings, "Gross Up" of Compensation. (i) Employer shall withhold from any amounts payable as compensation all federal, state, municipal, or other taxes as are required by any law, regulation, or ruling. (ii) Employer shall "gross up" any and all Temporary Relocation Expenses paid or reimbursed to Employee during the Temporary Residence Period by 36% in order to offset any and all income tax liability to Employee for the payment or reimbursement of these expenses by Employer. (iii) In addition, in the event Employee sustains an increased state income tax liability due to the payment of state income taxes in both Rhode Island and New Jersey versus Employee's paying only New Jersey state income tax, then Employer shall "gross up" the compensation paid to Employee hereunder in order to reimburse and offset any and all incremental increase in Employee's state income tax liability.

g. Business Expenses. Employer shall reimburse Employee for expenses reasonably incurred in the course of his employment, in accordance with Employer's policies in effect from time to time.

SECTION 3. TERM

a. Initial Term. The term of Employee's employment shall commence on the Effective Date and shall expire on October 31, 1999 (the "Term"), after which the provisions of Section 4 shall apply. For purposes of this Agreement, the "Termination Date" shall mean October 31, 1999 or the effective date of an early termination pursuant to section 3.b below.

b. Early Termination. Notwithstanding any other provision of this Agreement, Employee's employment shall terminate at any time, as follows:

(1) Employer may terminate your employment upon thirty (30) days written notice to Employee in the event you become disabled during your employment through any illness, injury, accident or condition of either a physical or psychological nature and, as a result, you are unable to perform substantially all of your duties and responsibilities hereunder for ninety (90) consecutive days during

the Initial Term. In that event, the Employer shall pay Employee the severance set forth in Section 4.

(2) Employee's employment may also be terminated by Employer at any time without prior notice upon a showing of "reasonable cause." Should Employee be terminated by Employer for "reasonable cause," no severance pay will be paid to Employee nor will his health insurance benefits be continued by Employer at its expense for any period of time as addressed in Section 4 of this Agreement. "Reasonable cause" shall be defined for the purposes of this Agreement as being: (a) any act of fraud, embezzelement or other material dishonesty by Employee with respect to the Employer which is proven to be directly detrimental to Employer's best interest; (b) Employee's willful failure to perform material duties and responsibilities described in Section 1 (c) above, after receiving notice and a reasonable opportunity to cure; (c) Employee's conviction of, or plea of nolo contendre to, any act that constitutes a felony under the laws of the state of Rhode Island or the United States; or (d) Employee's material breach of Section 5 of this Agreement.

(3) Employee may terminate his employment with immediate effect at any time "with cause" upon written notice to Employer, in which event the provisions of Section 4 shall apply. The following shall constitute "with cause" for the puposes of this Agreement: (a) material breach by Employer of any provision of this Agreement, includng without limitation any material diminution of Employee's position, authorities or responsibilities from that contemplated hereby or as in effect by practice during the Term of this Agreement, or (b) a Change of Control, being defined as the execution of agreements, the consummation of an agreed transaction or the pending consummation of a tender offer which will result in (i) a consolidation or merger in which the Employer is not the surviving corporation, or (ii) a transaction or series of transactions that result in acquisition of fifty percent (50%) or more of the Employer's outstanding Common Stock by a single person or entity or a group of persons or entities acting in concert, or (iii) the sale or transfer of all or substantially all of the Employer's assets.

SECTION 4. SEVERANCE

a. Severance Payments and Benefits. Upon the expiration of the Term or upon the early termination of the Term pursuant to Sections 3.b.(1) or 3.b.(3), Employee shall receive the following Severance Payments and Benefits from Employer:

(1) A payment equal to nine (9) month's of Employee's regular salary as of the date of the Termination Date, such lump sum shall be payable at Employee's sole election in either a lump sum on the Termination Date or in periodic payments specified by Employee. In the event the early termination is pursuant to Section 3.b.(1), such lump sum payment and related benefits hereunder shall be deemed to be made as compensation for Employee's past services to Employer.

(2) Employer will pay to Employee the balance of any accrued and unused vacation earned by Employee through the Termination Date.

(3) Employer will pay any accrued but unpaid bonus, if any, under Section 2.b.(2) for the period ending with the Termination Date or any prior fiscal period, if any, or any such other bonus, if any, which may be agreed between Employer and Employee or to which Employee may become entitled to prior to the Termination Date.

(4) Employer will continue to pay or reimburse Employee for the Temporary Relocation Expenses pursuant to Section 2.d for the period through the Termination Date and for any residual notice period occasioned by the termination provisions of those obligations which extends beyond the Termination Date. Such payment or reimbursement shall continue to be subject to the "gross up" provisions of Section 2.f.(ii) until final such payment shall be made.

(5) Employer will pay for the first twelve (12) months of Employee's COBRA coverage or, if such COBRA is unavailable, Employer shall pay to Employee the cash value of such twelve (12) months of COBRA coverage.

(6) Employer will also "gross up" the ordinary and severance compensation paid to Employee hereunder in order to reimburse and offset any and all incremental increase in Employee's state income tax liability pursuant to the provisions of Section 2.f.(iii) hereof.

(7) To facilitate the consulting obligations of Employee under Section 4.a.(8) below, Employee will be permitted to retain possession of the Sony Vaio desktop and portable computer equipment, and related equipment (monitor, printer, fax machine, etc.), assigned to Employee as of the Termination Date. Employee may retain such equipment upon the expiration of his consulting obligations hereunder.

(8) For the period of November 1, 1999 through April 30, 2000, Employer shall pay Employee Two Thousand Five Hundred Dollars ($2,500) per month as a retainer, payable within the first ten (10) days of each month, for up to twelve (12) hours per month of business development, management, legal and related consulting services to be rendered by Employee with respect to Employer's business. Subject to Employee's availability, additional consulting services may be provided to Employer at the rate of $1,500 per day.

b. Reference Letter Upon Separation of Employment. Employer agrees to provide Employee with a letter of recommendation upon Employee's separation of

employment, granted that Employee's separation of employment from Employer is for any reason other than "reasonable cause."

SECTION 5. CONFIDENTIALITY

a. Confidential Information. "Confidential Information" means information in whatever form, including information that is written, electronically stored, orally transmitted, or memorized, that is of commercial value to Employer and that was created, discovered, developed, or otherwise becomes known to Employee, or in which property rights are held, assigned to, or otherwise acquired by or conveyed to Employer, including any Employee Invention (as subsequently defined) or idea, knowledge, know-how, process, system, method, technique research and development, technology, software, technical information, trade secret, as defined in state statute, trademark, copyrighted material, reports, records, documentation, data, customer or supplier lists, tax or financial information, business or marketing plans, strategy or forecast. Confidential Information does not include information that is or becomes generally known within Employer's industry through no act or omission by Employee, provided, however, that the compilation, manipulation, or other exploitation of generally known information may constitute Confidential Information.

b. Employee Invention. "Employee Invention" means any idea, invention, software, technique, modification, process, improvement, or similar item, whether or not reduced to writing or stored electronically or otherwise, and whether or not protectible by patent, trademark, copyright, or other intellectual property law, that is crated, conceived, or developed by Employee or under his direction, whether solely or with others, during or after his employment by Employer, that relates in any way to, or is useful in any manner in, the business now or then conducted or proposed to be conducted by Employer or which is based upon or otherwise derives from or makes use of the Confidential Information.

c. Ownership; Disclosure. Any Confidential Information, whether or not developed by Employee, shall at all times be Employer's exclusive property. Employee shall promptly disclose any Employee Invention to Employer in writing.

d. Restrictions. During the term of this Agreement, and for ten (10) years thereafter, Employee shall not, without Employer's prior written consent:

(1) Use any Confidential Information for the benefit of himself of any other party other than Employer or disclose it to any other person or entity;

(2) Remove any Confidential Information or other documentation, device, plan or other record or evidence pertaining to Employer's business from Employer's premises, except when specifically authorized to do so in pursuit of Employer's business; or

e. Purpose. The parties acknowledge and agree that the Confidential Information is a valuable business asset, and that this Section is necessary to protect Employer's legitimate business interests.

SECTION 6. ADDITIONAL REPRESENTATIONS AND WARRANTIES

In addition to his other representation and warranties set forth in this Agreement, Employee further represents and warrants as follows:

a. Employee's performance of this Agreement shall not breach any agreement to which he is or was a party that requires him to hold any information in confidence or in trust;

b. Employee has not and shall not breach any such Agreement;

c. Employee shall not bring to Employer or use in connection with his employment any confidential or proprietary information belonging to another entity without first delivering a written release of that information to Employer; and

d. Employee has provided Employer with an original or true copy of any employment, non-competition, confidential or proprietary information, or similar agreement to which he is or has been a party which is now in effect or which may be in effect during the term of this Agreement.

SECTION 7. REMEDIES

a. Irreparable Harm. The parties acknowledge and agree that irreparable harm would result in the event of a breach or threat of a breach by Employee of Section 5 or the making of any untrue representation or warranty by Employee in this Agreement. Therefore, in such an event, and notwithstanding any other provision of this Agreement:

(1) Employer shall be entitled to a restraining order, order of specific performance, or other injunctive relief, without showing actual damage and without bond or other security; and

(2) Employer's obligation to make any payment or provide any benefit under this Agreement, including without limitation any severance benefits, shall immediately cease.

b. Remedies Not Exclusive. Employer's remedies under this Section are not exclusive, and shall not prejudice or prohibit any other rights or remedies under this Agreement or otherwise. To the extent required to be enforceable by applicable law, the cessation of Employer's obligation to make payments or continue benefits under this Section shall be deemed to be in the nature of liquidated damages and not a penalty.

c. Cessation of Payments. In the event Employer obtains relief as provided in this Section, or in the event of Employee's breach of Section 5 or the making of any untrue representation or warranty by Employee in this Agreement, Employer's obligation

to make any payment or provide any benefit under this Agreement, including any severance benefits, shall immediately cease.

SECTION 8. LEGAL COUNSEL

a. Understanding, Voluntary Agreement. Employee represents and warrants that he has been afforded a reasonable opportunity to review this Agreement, to understand its terms, and to discuss it with an attorney of his choice, and that he knowingly and voluntarily enters this Agreement.

b. Waiver of Separate Representation. To the extent Employee has not engaged separate legal counsel to represent him in connection with this Agreement, the parties acknowledge an agree that their respective interest in this Agreement are in conflict, that they have the right to retain independent counsel, that they have been fully informed about this right and conflicts of interest that arise from retaining the same legal counsel to represent both of them, and that this Section constitutes written disclosure of these conflicts. The parties further affirm that they are waiving separate representation freely, voluntarily, and with full knowledge of the effect of this waiver. NO party shall at any time claim that this Agreement is void or unenforceable in any respect because of the lack of use of independent counsel, or that the legal counsel who prepared this Agreement acted improperly in doing so.

SECTION 9. CONFIDENTIAL AGREEMENT

This Agreement is confidential, Employee and Employer shall keep its provisions confidential and shall not disclose them to anyone, including any past, present, or prospective employee of Employer; provided, that this Section shall not prohibit Employee from discussing this Agreement in confidential communications with his family members, attorneys, accountants, or other professional advisors, provided that the provisions of Section 5 shall at all times apply to communications with any such persons, and provided Employer may disclose the terms of this Agreement to the extent it is required by federal or state law, rule or regulation.

SECTION 10. MISCELLANEOUS PROVISIONS

a. Waivers. No assent, express or implied, by any party to any breach or default under this Agreement shall constitute a waiver of or assent to any breach or default of any other provision of this Agreement or any breach or default of the same provision on any other occasion.

b. Entire Agreement, Modification. This Agreement constitutes the entire agreement of the parties concerning its subject matter and supersedes all other oral or written understandings, discussions, and agreements, and may be modified only in a writing signed by both parties.

c. Binding Effect; No Third Party Beneficiaries This Agreement shall bind and benefit the parties and their respective heirs, devisees, beneficiaries, grantees, donees, legal representatives, successors, and assigns. Nothing in this Agreement shall be construed to confer any rights or benefits on third parties.

d. Assignment. Neither party may assign its interest in this Agreement without the other's prior written consent; provided that Employer may assign its interest to another entity which controls, is controlled by, or is under common control with Employer.

e. Severability. If any provision of this Agreement, including the restriction on time and geographic area contained in the Covenant Not to Compete and Confidential Information provisions of this Agreement, is found in binding arbitration or by a court or other tribunal of competent jurisdiction to be invalid or unenforceable, the attempt shall first be made to read that provision in such a way to make it valid and enforceable in light of the parties' apparent intent as evidenced by this Agreement. If such a reading is impossible, the tribunal having jurisdiction may revise the provision in any reasonable manner, to the extent necessary to make it binding and enforceable. If no such revision is possible, the offending provision shall be deemed stricken from the Agreement, and every other provision shall remain in full force and effect.

f. Forum. All lawsuits, actions, and other proceedings arising from this Agreement or the transactions it contemplates shall be prosecuted in the appropriate court in New Jersey and all parties agree to both subject matter and in personam jurisdiction in that forum.

g. Governing Law. This Agreement shall be governed by and construed under the laws of the State of Rhode Island.

h. Legal Counsel. The parties acknowledge that they have read and fully understand the contents of this Agreement and execute it after having had an opportunity to consult with legal counsel.

IN WITNESS WHEREOF, the partied have executed this Agreement to be effective as specified above.

PHILIP K. YACHMETZ	CYTOTHERAPEUTICS, INC.
BY: _____	BY: _____
Philip K. Yachmetz	Richard M. Rose, MD President & CEO

EXHIBIT 10.91

CYTOTHERAPEUTICS, INC.
701 GEORGE WASHINGTON HIGHWAY
LINCOLN, RHODE ISLAND 02865

As of July 1, 1999

John Schwartz
110 Atherton Avenue
Atherton, California 94027

Dear John:

This letter will confirm our agreement with respect to the amendment, with effect from July 1, 1999, of your Letter Agreement with CytoTherapeutics, Inc. (the "Company"), dated December 19, 1999 (the "Agreement").

Section 2. "Compensation; Time Commitment" shall be modified such that subsection 2.a.(iii) shall read:

"(iii) One Hundred Thirty Two Thousand Dollars ($132,000) per year, plus a fee of One Thousand Five Hundred Dollars ($1,500) per Board meeting or Committee meeting (if held at a date and time separate from the Board meeting) where you are physically present, plus Five Hundred Dollars ($500) per Board meeting or Committee meeting (if held at a date and time separate from the Board meeting) held by conference call, payable quarterly in arrears (this cash compensation plus any other compensation provided for herein shall be referred to as the "Compensation"). "

Section 2. " Compensation; Time Commitment" shall be further modified such that Subsection b. shall read:

"b. As Chairman of the Board of Directors, you will be expected to devote no less than thirty (30) business days per calendar quarter to the performance of your duties and responsibilities collectively under this Agreement and the Consulting Agreement (hereinafter "Duties and Responsibilities"). In the event you devote more than thirty (30) days in any calendar quarter to the performance of your

Duties and Responsibilities, you shall, within thirty (30) days of the end of the calendar quarter, provide an accounting to the President and Chief Executive Officer of the Company detailing the actual time spent during such preceding calendar quarter. After review and approval by the President and Chief Executive Officer of the Company you will be promptly further compensated for additional days exceeding thirty (30) in any calendar quarter at the rate of One Thousand Five Hundred Dollars ($1,500) per day. All such additional payments made shall be promptly reported by the President and Chief Executive Officer to the Compensation Committee of the Board (the "Compensation Committee") for subsequent ratification by such Compensation Committee, such ratification not to delay the payment of any such additional payments."

Except as specifically modified hereby, all other terms and conditions of the Agreement remain in full force and effect

If the foregoing is acceptable to you, please sign the enclosed copy of this letter in the space provided below and return it to me, whereupon this letter and such copy will constitute a binding amendment of the Agreement between you and the Company on the basis set forth above as of the date first above written.

Sincerely yours,
CYTOTHERAPEUTICS, INC.

By: _____
Richard M. Rose, M.D.
President &
Chief Executive Officer

Accepted and Agreed:

_____
John J. Schwartz

Date: _____

EXHIBIT 10.93

CYTOTHERAPEUTICS, INC.
701 George Washington Highway
Lincoln, RI 02865
401-288-1000

August 30, 1999

Moses Goddard, MD
155 Pelletier Lane
Tiverton, RI 02878

Dear Moses:

As we have discussed, we have determined that it is in our mutual best interests to effect a voluntary end to your employment with CytoTherapeutics, Inc. ("CTI" or the "Company"). If accepted by you, this letter will confirm that you hereby resign as Vice President, Chief Technical Officer--Cell Encapsulation & General Manager Cell Encapsulation, Director and employee of CTI and from all other positions you hold in CTI and its Affiliates (as defined herein), effective as of August 31, 1999. It is understood that CTI will take actions in reliance on your resignation and that it shall become irrevocable on the effective date of this Agreement. In consideration of your resignation from your employment with CTI effective on August 31, 1999, CTI is offering you the severance package set forth below. If you accept it, this letter will constitute the agreement between you and CTI concerning your severance arrangements, as follows:

1. During the period from the date of this letter, written above, through August 31, 1999 you will continue to be employed by the Company at your current rate of pay.

2. (a) CTI will provide you on or before August 31, 1999 with a lump-sum payment equal to (i) two months salary at your final base rate of pay, plus (ii) the amount payable to you under the Company severance policy currently in effect calculated through October 31, 1999, provided that you also shall receive a pro-rated portion of the amount payable per year of service under the severance policy for the partial year of service ended October 31, 1999, plus (iii) all vacation time earned but not used through and including August 31, 1999, reduced by the amount of any Company loan or loans outstanding under the Company's 401(k) Plan. You agree that from August 31, 1999 through October 31, 1999 (the "Transitional Period"), at the Company's request, you will provide up to ten (10) days of consulting services relating to the Company's encapsulated

cell therapy technology and transactions related thereto at no cost to the Company. If the time commitment required of you during the Transitional Period exceeds ten (10) days, you shall be compensated at the rate of $1,000 per day. After the Transitional Period you agree to remain available, at the request of the Company, for consulting services relating to the Company's encapsulated cell therapy technology and transactions related thereto for which you will be compensated at the rate of $1,500 per day, plus expenses.

(b) In addition to the above, upon the approval of the Company's Board of Directors, you will receive an option to acquire 18, 000 shares of the common stock of the Company, at a strike price equal to the price per share of the Company's common stock of the date of the approval of the grant by the Company's Board of Directors. This time-based option will vest at a rate of 1,500 shares per month on the first day of each month for the twelve months commencing with November 1, 1999, provided that you continue to remain available for the consulting services discussed above. The Company may terminate the consulting arrangement on no less than sixty (60) days written notice to you. Any options which remain unvested as of the termination date cited in the Company's notice to you shall expire as of such date. You shall have six (6) months from the last vesting date of options under this grant within which to exercise such option.

3. During the Transitional Period, the Company will continue your participation in those Company employee benefit plans and which you are currently a participant, to the extent permitted by the terms of those plans and generally applicable Company policies. Except for the options granted to you under Section 2.(b) above, stock options granted to you and not yet expired, exercised, canceled or otherwise become unexercisable shall continue to vest through August 31, 1999, but not thereafter. In addition, subject to approval by the Company's Board of Directors, the exercise period for all of the options previously granted to you which shall have vested as of August 31, 1999 shall be extended to February 28, 2000 (the "Exercise Period Extension"), provided, however, that all such options shall be exercisable only for so long as you continue to comply with your obligations under this Agreement, including, without limitation, your obligations under paragraph 9 of this Agreement. I will strongly recommend approval of the Exercise Period Extension at a meeting of the Board of Directors to be held prior to August 31, 1999.

4. To the extent permitted by the terms of the Company's group health and dental plans and by its health and dental plan insurers or providers, as applicable, the Company will continue your participation and that of your eligible dependents in its group health and dental plan to the same extent as you and they currently participate and will pay the premium costs of such participation to the same extent currently paid, from August 31, 1999 through the earlier of (i) November 30, 1999 or (ii) the date you commence other employment and become eligible for coverage under the plans of your new employer. If the Company is unable to provide the continuations contemplated in the first sentence of this section, you may exercise your right to continue your coverage and that of your eligible dependents in the Company's group health and dental plan under the federal law known as COBRA, provided you are eligible to do so, and, if you are eligible and so elect, then, until the earlier of November 30, 1999 or the date you cease to be eligible for continuation under COBRA,

the Company will pay the premium costs of your coverage and that of your eligible dependents. Alternatively, the Company may satisfy its obligations to you under this paragraph by paying to you on October 31, 1999 a lump sum amount equal to the cost to the Company of your previous month's group health plan insurance coverage, and, shall so satisfy its obligation to you in the event that the Company has no group health plan willing to provide COBRA coverage to you on terms comparable to those in effect on the date of this agreement. Coverage under all other benefit plans of the Company, including, without limitation, the Company's group life insurance plan, shall cease as of August 31, 1999.

5. The Company will pay for the costs of the four month outplacement services program to be rendered to you by Executive Destinations in accordance with their agreement with the Company.

6. All payments by the Company under this Agreement will be reduced by all taxes and other amounts that the Company is required to withhold under applicable law and all other deductions authorized by you.

7. In signing this agreement, you acknowledge that, on receipt by you of the payments to be provided you in accordance with Sections 1 and 2 hereof, you will have received payment in full of any and all sums which are now, or might hereafter have become, owing to you from CTI, whether for services rendered by you during your employment with CTI or otherwise, including without limitation any and all salary, vacation pay, severance pay and bonuses.

8. You agree that you will not disclose this agreement or any of its terms or provisions, directly or by implication, except to members of your immediate family and to your legal and tax advisors, and then only on condition that they agree not to further disclose this agreement or any of its terms or provisions to others.

9. You agree that you will not disparage CTI or any of its Affiliates or any of their directors, trustees, officers or employees; and that you will not otherwise do or say anything that could disrupt the good morale of the employees of CTI and its Affiliates or otherwise harm the interests or reputation of CTI or any of its Affiliates. "Affiliates" means all persons and entities directly or indirectly controlling, controlled by or under common control with CTI, where control may be by management authority, equity interest, trusteeship, membership or otherwise. Affiliates of CTI include, without limitation, StemCells, Inc.

10. In signing this agreement, you give CTI assurance that on or prior to August 31, 1999 you will return to CTI any and all documents, materials and information related to the business, whether present or otherwise, of CTI and its Affiliates, and all keys and other property of CTI and its Affiliates in your possession or control (other than the cellular telephone previously provided to you by the Company, which you may retain, subject to your paying all service charges therefor after August 31, 1999). Recognizing that your employment with CTI will have been terminated, you

agree that after August 31, 1999 you will not, for any purpose, attempt to access or use any computer or computer network or system of CTI or any of its Affiliates, including without limitation their electronic mail system(s). Notwithstanding the above, during the period that you are consulting with the Company pursuant to Paragraph 2(a), you shall continue to have access to, and are allowed to maintain copies of, documents, materials and information related to the Company's business and shall continue to have access to the Company's premises.

11. You have signed an agreement with the Company dealing with, among other matters, confidentiality, inventions and noncompetition (the "Employee Agreement"). You agree to meet all of your obligations under the Employee Agreement, both during the remainder of your employment with the Company and following termination of your employment, in accordance with the terms of the Employee Agreement; provided, however, that if you meet all of your obligations under this agreement, then the Company will relieve you of those obligations of the Employee Agreement which prohibit your competition with the Company.

12. You agree to cooperate with CTI at any time within three years hereafter with respect to all matters arising during or related to your employment, including but not limited to all matters in connection with any governmental investigation, litigation or regulatory or other proceeding which may have arisen or which may arise following the signing of this agreement. CTI shall reimburse you for any reasonable, documented lodging, travel or similar normally reimbursable out-of-pocket expenses incurred by you in fulfilling your obligations under this paragraph.

13. In order to be certain that this agreement will resolve any and all concerns that you might have, CTI requests that you carefully consider its terms, including the release of claims set forth below and, in that regard, encourages you to seek the advice of an attorney before signing this agreement.

14. This Agreement and the exhibits hereto constitutes the entire agreement between you and CTI and supersedes any and all prior and contemporaneous communications, agreements and understandings, whether written or oral, with respect to your employment by CTI, the termination of that employment and all matters pertaining thereto, excluding only the Employee Agreement (modified as provided above), the parties' obligations under CTI's 1992 Equity Incentive Plan, any other obligations which you may have to CTI or any of its Affiliates with respect to confidential information, non-competition, assignment of intellectual property or the like under contract or applicable law. In signing this Agreement, you represent and affirm that you have not relied on any promises or representations, written or oral, express or implied, by anyone connected with CTI or any of its Affiliates that are not set forth expressly in this Agreement.

15. You agree that this agreement shall be in complete and final settlement of any and all causes of action, rights or claims that you have had in the past, now have, or might now have, in any way related to, connected with or arising out of your employment by the Company or service as a director of the Company or the termination thereof or pursuant to Title VII of the Civil Rights

Act, the Americans with Disabilities Act, the Age Discrimination in Employment Act, or any other federal, state or local employment law, regulation or other requirement and you, on your own behalf and on behalf of your heirs, executors, administrators, personal representatives and assigns, hereby release and forever discharge CTI and its Affiliates and all of their respective past and present directors, shareholders, officers, employees, agents, successors and assigns and all others connected with any of them, both individually and in their official capacities, from any and all such causes of action, rights or claims. Nothing contained herein shall modify or eliminate any right you may have to indemnification as a result of your status as executive officer or director of the Company or your rights to enforce the provisions of this Agreement or your rights as a stockholder in the Company.

16. In signing this agreement, you give CTI assurance that you have signed it voluntarily and with a full understanding of its terms and that you have had sufficient opportunity to consider this agreement before signing it. This Agreement, including the release of claims contained in the Section immediately above, contains binding legal obligations. This Agreement may be amended only by a writing signed by you and an expressly authorized representative of CTI.

If the terms of this agreement are acceptable to you, please sign, date and return it to me within twenty-one days of the date you receive it. You may revoke this agreement at any time during the seven-day period immediately following the date of your signing. If you do not do so, then, at the expiration of that seven-day period, this letter will take effect as a legally binding agreement between you and CTI (and each party's successors and assigns) on the basis set forth above, to be enforced under and construed in accordance with the laws of the State of Rhode Island without regard to the conflict of law principles thereof. The enclosed copy of this letter, which you should also sign and date, is for your records.

Sincerely,

Philip K. Yachmetz, Esquire
Senior Vice President, Business Development
and General Counsel

Accepted and agreed:

Signature: _____
Moses Goddard

Date: _____

Date: _____

EXHIBIT 10.95

525 Del Rey Avenue, Suite C
Sunnyvale, CA 94086

CytoTherapeutics

November 17, 1999

Mr. George Dunbar

Dear George:

On behalf of StemCells, Inc. (the "Company"), I am pleased to invite you to join the Company as Acting President of StemCells, Inc. reporting to the Company's Board of Directors. The effective date of your employment will be November 8, 1999.

The terms of this offer of employment are as follows:

1. Compensation. Your Base Salary will be $6,730.77 biweekly ($175,000 per year) subject to review and adjustment from time to time. Your salary will begin as of the effective date of employment.

2. Responsibilities. Your responsibilities as Acting President will be to perform such services as are customarily performed by the President of a biotechnology company, as requested by the Board from time to time. Specific responsibilities will be to provide the management and leadership role on behalf of the Board to accelerate the timely and cost effective exit from its parent's Rhode Island operations, and to establish consolidated corporate headquarters around the existing Sunnyvale, California facility. The priorities in Rhode Island include the early sale and disposition of the Lincoln, Rhode Island ECT pilot plant, leasing the existing science and administration facility, appropriate partnering of the ECT technology, and the sorting out with the State of Rhode Island any dispute that might exist regarding their initial "seed loan" to the Company's parent, CytoTherapeutics, Inc. The corporate relocation priorities are to initiate the minimum infrastructure necessary to manage the ongoing scientific and medical infrastructure necessary to manage the ongoing scientific and medical activities with limited disruption and to ensure all public company obligations are being met. Attention to other business development and shareholder drivers will be discussed and reviewed at the discretion of the Board. It is understood by the parties that the terms of this letter, including any provisions for compensation, stock options and benefits, all have to do with this interim position, and that if you were to become a permanent officer the terms and conditions would first be renegotiated.

3. Stock Options. Subject to the approval of the Board of Directors of CytoTherapeutics, you will be granted the following shares of CytoTherapeutics' stock at a price equal to the fair market value at the time of your countersigning this letter:

- A stock option for 4,000 shares each month. In its absolute discretion, each quarter the Board of Directors will also consider an additional grant of up to 3,000 additional options if, it deems the services provided by you to be truly outstanding.

4. At Will Employment. You should be aware that your employment with the Company is for no specified period and constitutes "at-will" employment. As a result, you are free to terminate your employment at any time, for any reason or for no reason. Similarly, the Company is free to terminate your employment at any time, for any reason or for no reason. In the event of termination of your employment, you will not be entitled to any payments, benefits, damages or compensation.

5. Employment Agreement. As a condition of accepting this offer of employment, you will be required to complete, sign and return the Company's standard form of Employment Agreement.

6. Immigration Laws. For the purposes of federal immigration laws, you will be required to provide to the Company documentary evidence of your identity and eligibility for employment in the United States. Such documentation must be provided within 3 (three) business days of the effective date of your employment, or your employment relationship with the Company may be terminated.

7. General. This offer letter, the Employment Agreement and the Employee Stock Option Agreement, when signed by you, sets forth the terms of your employment with the Company and supersedes any and all prior representations and agreements, whether written or oral. This agreement can only be amended in a written document signed by you and an officer of the Company. This agreement will be governed by California law.

We look forward to you joining the Company. If the foregoing terms are agreeable, please indicate your acceptance by signing both enclosed copies of this letter in the space below, keeping one copy for your files and returning one copy to me.

Sincerely,

_____

John Schwartz
Chairman of the Board
CytoTherapeutics, Inc.

AGREED AND ACCEPTED:

_____ This _____ day of November, 1999

enc: Offer Letter Copy
Employee Information Agreement
I-9 Form

525 Del Rey Avenue, Suite ^
Sunnyvale, CA 94086

CytoTherapeutics

EXHIBIT 10.96
November 17, 1999

Dr. Kenneth D. Coleman
President/CEO
Mr. David Powell
Chairman
iCEO, L.L.C.

Re: Mr. George Dunbar

Dear Ken and David:

CTI would very much like to engage George Dunbar to serve as Acting President of StemCells, Inc., a subsidiary of CTI, on the following terms:

1. We would expect George to sign our normal Employment Offer letter and Employment Agreement, substantially in the form attached.
2. The Acting President's responsibilities will be to perform such services as are customarily performed by the President of a biotechnology company, as requested by the Board from time to time. Specific responsibilities will be to provide the management and leadership role on behalf of the Board to accelerate the timely and cost effective exit from its parent's Rhode Island operations, and to consolidate corporate headquarters around the existing Sunnyvale, California facility. The priorities in Rhode Island include the early sale and disposition of the Lincoln, Rhode Island ECT pilot plant, leasing the existing science and administration facility, appropriate partnering of the ECT technology, and the sorting out with the State of Rhode Island any dispute that might exist regarding their initial "seed loan" to CTI. The corporate relocation priorities are to initiate the minimum infrastructure necessary to manage the ongoing scientific and medical infrastructure necessary to manage the ongoing scientific and medical activities with limited disruption and to ensure all CTI's public company obligations are being met. Attention to other business development and shareholder drivers will be discussed and reviewed at the discretion of the Board. CTI acknowledges and understands that iCEO, L.L.C. cannot and does not guarantee that CTI will obtain funding that it deems acceptable or adequate as a result of the Acting President's performance of services.

3. George would begin as of November 7, 1999, and, of course, would commit to the time necessary to carry out his responsibilities, as you said. We would, as you also note, want to meet with you and George as necessary to discuss any issues that arise in connection with this appointment. George's employment will

be at will, continuing until terminated by either him or us, neither party having any obligation to give the other party advance notice, as reflected in the enclosed engagement letter.

4. We will pay at the total annual rate of $250,000 so long as George is in our employ as Acting President. We will pay iCEO, L.L.C. that part of the total rate that you direct. The remainder will constitute George's salary; we will also pay the employer's share of payroll taxes, and withhold taxes and other amounts as appropriate, on the amounts paid to George. George will be paid on the same schedule as all CTI employees, which is currently every two weeks, and iCEO will bill us for its share on the 15th and the last day of the month for the prior period, amounts to be due on receipt.
5. We will grant options to purchase a total of 8,000 shares of CTI stock every month; every three months, the CTI Board of Directors will also consider an additional grant of up to a total of 6,000 additional options if, in its absolute discretion, it deems the services provided by George are truly outstanding. The shares will be divided between George and iCEO as you direct in your reply to this letter. The strike price for all options will be the price of the shares at the close of business on the date of grant, which will occur at CTI's first Board meeting in November, 1999.
6. We will reimburse George promptly for his reasonable expenses incurred on behalf of StemCells. We will, of course, require that he follow normal business practices with respect to receipts and advance authorization where required.
7. I have left space below for you to let us know how the monetary payment and the options should be divided up. We will use that information to complete the engagement letter, and send you a copy of the completed package once the remaining documents are fully executed.
8. CTI agrees that if, within 120 days following the termination of George's employment as Acting President of StemCells, it or StemCells should engage George on a permanent basis rather than as Acting President, it will pay iCEO, L.L.C. an amount equal to one third of his first year's targeted cash compensation, including base salary and bonus, in such permanent position.
9. It is understood by all parties that the terms of this agreement, as well as the Employment Offer letter and Employment Agreement, all have to do with an interim position, and that if George were to become CEO of CTI on a permanent basis the terms and conditions would first be renegotiated. It is further understood that George has certain consulting agreements which have been disclosed and which are listed in Exhibit B to the Employment Agreement, and it is agreed that in light of the interim nature of this appointment, he is entitled to continue to provide services under those agreements so long as their performance does not interfere in any way with his carrying out of his responsibilities toward StemCells or its parent. It is also understood and agreed that George is free to interview with other companies during his appointment as Acting President, again so long as this does not interfere in any way with his

carrying out of his responsibilities toward StemCells or its parent. Moreover, if at any time during the duration of his appointment as Acting President of StemCells George should be dissatisfied with his compensation because he finds his responsibilities significantly different from what he now believes they will be, he and you should feel free to meet with the Chairman of the Board of CTI to discuss the problem and how it could be ameliorated.

I believe this obviates the need for Exhibit A to your letter, but if I have omitted anything of importance, please let me know.

Sincerely,

John Schwartz
Chairman of the Board

Enclosures

Accepted, with the condition that $6,250 per month of the annual amount of $250,000 referred to in paragraph 4 (i.e., thirty percent) above be paid to iCEO, L.L.C., and fifty percent of the options for 8,000 shares of CTI stock (i.e., 4,000 shares) per month and fifty percent of any additional options granted as set out in paragraph 5 above, be granted to iCEO Diversified Stock Fund.

_____
by:
iCEO, L.L.C.

EXHIBIT 21

SUBSIDIARIES OF STEMCELLS, INC.

NAME	JURISDICTION OF INCORPORATION
StemCells California, Inc.	California

Exhibit 23.1

CONSENT OF INDEPENDENT AUDITORS

We consent to the use of our report dated April 14, 2000, included in the Annual Report on Form 10-K of StemCells, Inc. (formerly CytoTherapeutics, Inc.) for the year ended December 31, 1999, with respect to the consolidated financial statements, as amended, included in this Form 10-K/A.

/s/ Ernst & Young LLP

Providence, Rhode Island
December 1, 2000

This schedule contains summary information extracted from the consolidated statement of earnings for the year ended December 31, 1999 and the consolidated balance sheet at December 31, 1999 and is qualified in its entirety by reference to such financial statements.

YEAR	
	DEC-31-1999
DEC-31-1999	
	4,760,064
	0
	3,000,000
	0
	0
	8,970,855
	5,779,777
	(828,401)
	15,780,999
	3,560,550
	2,937,083
	0
	0
	186,355
	3,320,048
	15,780,999
	0
	5,021,707
	0
	0
	20,959,136
	0
	335,203
	(15,708,626)
	0
	(15,708,626)
	0
	0
	0
	(15,708,626)
	(.84)
	(.84)

EXHIBIT 99
CAUTIONARY FACTORS RELEVANT TO FORWARD-LOOKING INFORMATION

You should carefully consider the risks described below before making an investment decision regarding StemCells, Inc. We may face other risks not described below that we do not presently know about or that we currently deem immaterial.

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

OUR TECHNOLOGY IS AT AN EARLY STAGE OF DISCOVERY AND DEVELOPMENT AND WE MAY FAIL TO DEVELOP ANY PRODUCTS.

Our stem cell technology is at the early pre-clinical stage for the brain stem cell and at the discovery phase for the liver and pancreas stem cells and has not yet led to the development of any proposed product. We may fail to discover the stem cells we are seeking, to develop any products, to obtain regulatory approvals, to enter clinical trials, or to commercialize any products. Any product using stem cell technology may fail to (i) survive and persist in the desired location, (ii) provide the intended therapeutic benefits, (iii) properly integrate into existing tissue in the desired manner, or (iv) achieve benefits therapeutically equal to or better than the standard of treatment at the time of testing. In addition, any such product may cause undesirable side effects. Results of early pre-clinical research may not be indicative of the results that will be obtained in later stages of preclinical or clinical research. If the appropriate regulatory authorities do not approve our products, or if we fail to maintain regulatory compliance, we would have limited ability to commercialize our products, and our business and results of operations would be harmed. Furthermore, since stem cells are a new form of therapy, the marketplace may not accept any products we may develop.

If we do succeed in developing products, we will face many potential obstacles such as the need to obtain regulatory approvals, and to develop or obtain manufacturing, marketing and distribution capabilities. In addition, we will face substantial additional risks such as product liability.

WE HAVE LIMITED LIQUIDITY AND CAPITAL RESOURCES AND MAY NOT OBTAIN THE SIGNIFICANT CAPITAL RESOURCES WE WILL NEED TO SUSTAIN OUR RESEARCH AND DEVELOPMENT EFFORTS.

We have limited liquidity and capital resources and must obtain substantial additional capital to support our research and development programs, for acquisition of technology and intellectual property rights, and, to the extent we decide to undertake these activities ourselves, for pre-clinical and clinical testing of our anticipated products, pursuit of regulatory approvals, establishment of production capabilities, establishment of marketing and sales capabilities and distribution channels, and general administrative expenses.

Even though we owned 126,193 shares of Modex Therapeutics Ltd., stock with an estimated fair market value on June 30, 2000 of $19,220,165 based on the per share price of approximately $152.00, which we converted from a market price of 247.50 Swiss francs on June 30, 2000, we are restricted from selling these shares until December 23, 2000. On October 31, 2000, the market price on Modex stock was 329.50 Swiss francs, which converts to $183.28 using the exchange rates on that date, and represents an estimated fair market value of $23,128,598 for our holdings. The performance of Modex stock since Modex's initial public offering does not predict its future value and the value of our holdings is subject to change and could decrease significantly. If we decide to sell our Modex shares, due to the relatively small trading volume in Modex shares and the relatively large size of our holding, or other factors, we may not be able to sell our Modex shares at their market value or at all, and we may have to sell these shares at a significant discount to the market price. In addition, fluctuations in currency exchange rates could decrease the proceeds we might realize on a potential sale of Modex shares.

We intend to pursue our needed capital resources through equity and debt financings, corporate alliances, grants and collaborative research arrangements. Our ability to complete any such arrangements successfully will depend upon market conditions and, more specifically, on continued progress in our

research and development efforts. We may fail to obtain the necessary capital resources from any such sources when needed or on terms acceptable to us. If we do not obtain the necessary capital resources, we may have to delay, reduce or eliminate some or all of our research and development programs or license our technology or any potential products to third parties rather than commercializing them ourselves.

WE HAVE PAYMENT OBLIGATIONS RESULTING FROM REAL PROPERTY OWNED OR LEASED BY US IN RHODE ISLAND, WHICH ADVERSELY AFFECT OUR ABILITY TO FUND OUR STEM CELL RESEARCH AND DEVELOPMENT.

Prior to our reorganization in 1999 and the resulting consolidation of all functions in California, we carried out our former encapsulated cell therapy programs at facilities in Lincoln, Rhode Island, where we also had our administrative offices. Although we have vacated these facilities, we have continuing obligations for lease payments and operating costs of approximately $950,000 per year for our former science and administrative facility, which we have leased through June 30, 2013, and debt service payments and operating costs of approximately $1,000,000 per year for our former encapsulated cell therapy pilot manufacturing facility. We are currently seeking to sublease the science and administrative facility and to sell the pilot manufacturing facility, but may not be able to do so. These continuing costs significantly reduce our cash resources and adversely affect our ability to fund further development of our stem cell technology. The lease for the science and administrative facility contains a provision requiring occupancy of the premises and we currently are in violation of this provision. The landlord has agreed not to take any action as a result of this violation until November 19, 2000. We intend to seek an additional period of forebearance from the landlord, but we cannot give any assurance that the landlord will grant this additional forebearance or that we will be able to sublease the premises during any additional period of time. If the landlord decides to pursue its rights after any period of forebearance, we may be required to pay the landlord the entire amount due for the rest of the lease period.

WE MAY NEED BUT FAIL TO OBTAIN PARTNERS TO SUPPORT OUR STEM CELL DEVELOPMENT EFFORTS AND TO COMMERCIALIZE OUR TECHNOLOGY.

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

We entered into a sponsored Research Agreement with the Scripps Research Institute under which we funded certain research in return for license or options to license the inventions resulting from the research. This agreement expired on November 14, 2000 and we are negotiating with Scripps to extend the term of this agreement or to enter into a new agreement. As of the date of this report, we have not yet completed our negotiations with Scripps and we cannot give any assurance that our negotiations will be successful. If we are unable to extend the term of this agreement or enter into a new agreement, we will have to find a replacement to perform this research or we will have to perform this research ourselves. In either case, we may experience delay and additional expense in connection with this research effort.

WE HAVE A HISTORY OF OPERATING LOSSES AND WE MAY FAIL TO OBTAIN REVENUES OR BECOME PROFITABLE.

We have incurred $124,237,900 in operating losses through September 30, 2000 and expect to continue to incur substantial operating losses in the future in order to conduct our research and development activities, and if those activities are successful, to fund clinical trials and other expenses. These expenses

include the cost of acquiring technology, product testing, acquiring regulatory approvals, establishing production, marketing, sales and distribution programs, and administrative expenses. We have not earned any revenues from sales of any product. All of our past revenues have been derived from, and any revenues we may obtain for the foreseeable future are expected to be derived from, cooperative agreements, research grants, investments and interest on invested capital. We have no cooperative agreements and we have received only two research grants for our stem cell technology, and we may not obtain any such agreements or additional grants in the future, or receive any revenues from them.

WE DO NOT ANTICIPATE RECEIVING FUTURE REVENUES FROM THE SALE OF OUR ENCAPSULATED CELL TECHNOLOGY.

In December 1999, we sold our encapsulated cell therapy technology to Neurotech S.A. While under the terms of the sale we may receive royalty and other payments from Neurotech under certain circumstances, we do not anticipate receiving any material payments from Neurotech in the near future, if at all.

WE DEPEND ON PATENTS AND PROPRIETARY RIGHTS TO PROTECT OUR INTELLECTUAL PROPERTY FROM INFRINGEMENT. NEVERTHELESS, SUCH PROTECTION IS UNCERTAIN AND, IF GAINED, MAY OFFER ONLY LIMITED PROTECTION. IF WE ARE UNABLE TO PROTECT OUR PATENTS AND PROPRIETARY RIGHTS, OUR BUSINESS, FINANCIAL CONDITION AND RESULTS OF OPERATIONS WILL BE HARMED.

We own or license a number of patents or pending patent applications covering human nerve stem cell cultures, central nervous system stem cell cultures, neuroblast cultures, peripheral nervous system stem cell cultures, and an animal model for liver failure. Patent protection for products such as those we propose to develop is highly uncertain and involves complex and continually evolving factual and legal questions. The governmental authorities that consider patent applications can deny or significantly reduce the patent coverage requested in an application before or after issuing the patent. Consequently, we do not know whether any of our pending applications will result in the issuance of patents, or if any existing or future patents will provide sufficient protection or significant commercial advantage or if others will circumvent these patents. Since patent applications are secret until patents are issued in the United States or until the applications are published in foreign countries, 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. Our patents may not issue from our pending or future patent applications or, if issued, may not be of commercial benefit to us, or may not afford us adequate protection from competing products. In addition, third parties may challenge our patents or governmental authorities may declare them invalid. In the event that a third party has also filed a patent application relating to inventions claimed in our patent applications, we may have to participate in proceedings to determine priority of invention. This could result in substantial uncertainties and cost for us, even if the eventual outcome is favorable to us, and the outcome might not be favorable to us. Even if a patent issues, a court could decide that the patent was issued invalidly.

IF OTHERS ARE FIRST TO DISCOVER AND PATENT ANY STEM CELLS WE ARE SEEKING TO DISCOVER, WE COULD BE BLOCKED FROM FURTHER WORK ON THAT STEM CELL, AND OUR BUSINESS WOULD BE HARMED.

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

WE MAY NEED TO OBTAIN LICENSES TO THIRD PARTY PATENTS, AND MAY NOT BE ABLE TO GET THEM.

A number of pharmaceutical, biotechnology and other companies, universities and research institutions have filed patent applications or have received patents relating to cell therapy, stem cells and other technologies potentially relevant to or necessary for our expected products. We cannot predict which, if any, of the applications will issue as patents. 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 three patents issued to two competitors claiming certain methods for enriching central nervous system stem cells through gene modification of in vitro cultured cells. These patents were issued or licensed to NeuralStem

and Layton Bioscience. It is possible that NeuralStem or Layton Bioscience will be able to produce commercially available stem cell products before we can. These genetically modified cells may be effective in treating defective, diseased or damaged central nervous system tissue.

If third party patents or patent applications contain claims infringed by our technology and these claims are valid, we may be unable to obtain licenses to these patents at a reasonable cost, if at all, and may also be unable to develop or obtain alternative technology. If we are unable to obtain such licenses at a reasonable cost, our business could be significantly harmed. We may have to to defend ourselves in court against allegations of infringement of third party patents. Patent litigation is very expensive and could consume substantial resources and create significant uncertainties. An adverse outcome in such a suit could subject us to significant liabilities to third parties, require disputed rights to be licensed from third parties, or require us to cease using such technology.

Proprietary trade secrets and unpatented know-how are also important to our research and development activities. We cannot be certain that others will not independently develop the same or similar technologies on their own or gain access to our trade secrets or disclose such technology, or that we will be able to meaningfully protect our trade secrets and unpatented know-how and keep them secret.

We require our employees, consultants, and significant scientific collaborators and sponsored researchers to execute confidentiality agreements upon the commencement of an employment or consulting relationship with us. These agreements may, however, fail to provide meaningful protection or adequate remedies for us in the event of unauthorized use, transfer or disclosure of such information or inventions.

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

WE COMPETE WITH COMPANIES THAT HAVE SIGNIFICANT ADVANTAGES OVER US.

The market for therapeutic products 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, such as Biogen, Inc. and Genzyme, an Elan Corporation. These companies already produce or are developing treatments for degenerative diseases that are not stem-cell based, and they have significantly greater capital resources and expertise in research and development, manufacturing, testing, obtaining regulatory approvals and marketing than we do. Many of these potential competitors have significant products approved or in development that could be competitive with our potential products, and also operate large, well-funded research and development programs. In addition, we expect to compete with smaller companies such as NeuralStem and Layton Bioscience and with universities and other research institutions who are developing treatments for degenerative diseases that are stem-cell based.

Our competitors may succeed in developing technologies and products that are more effective than those being developed by us, or that would render our technology obsolete or non-competitive.

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 will affect our ability to gather market acceptance and market share. With respect to clinical testing, competition may delay progress by limiting the number of clinical investigators and patients available to test our potential products.

DEVELOPMENT OF OUR TECHNOLOGY WILL BE SUBJECT TO EXTENSIVE GOVERNMENT REGULATION.

Our research and development efforts, as well as any future clinical trials, and the manufacturing and marketing of any products we may develop, will be subject to extensive regulation by governmental authorities in the United States

and other countries. The process of obtaining U.S. Food and Drug

Administration and other necessary regulatory approvals is lengthy, expensive and uncertain. We or our collaborators may fail to obtain the necessary approvals to commence or continue clinical testing or to manufacture or market our potential products in reasonable time frames, if at all. In addition, the United States Congress and other legislative bodies may enact regulatory reforms or restrictions on the development of new therapies that could adversely affect the regulatory environment in which we operate or the development of any products we may develop.

We base our research and development on the use of human stem and progenitor cells obtained from fetal tissue. The federal and state governments and other jurisdictions impose restrictions on the use of fetal tissue. These restrictions change from time to time and may become more onerous. Additionally, we may not be able to identify or develop reliable sources for the cells necessary for our potential products--that is, sources that follow all state and federal guidelines for cell procurement. Further, we may not be able to obtain such cells in the quantity or quality sufficient to satisfy the commercial requirements of our potential products. As a result, we may be unable to develop or produce our products in a profitable manner.

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

WE DEPEND ON A LIMITED NUMBER OF KEY PERSONNEL.

We are highly dependent on the principal members of our management and scientific staff and certain of our outside consultants, including the members of our scientific advisory board, our chief executive officer, each of our vice presidents and the directors of our neural stem cell and liver stem cell programs. Although we have entered into employment agreements with some of these individuals, they may terminate their agreements at any time. We currently have outside consultants and interim personnel in key management and scientific positions who are not permanent employees. Loss of services of any of these individuals could have a material adverse effect on our operations, because these individuals possess management experience or specialized scientific skills which we do not otherwise have and which we may not be able to replace. In addition, our operations are dependent upon our ability to attract and retain additional qualified scientific and management personnel. More generally, we may not be able to attract and retain the personnel we need on acceptable terms given the competition for experienced personnel among pharmaceutical, biotechnology and health care companies, universities and research institutions. If we lose the services of these key personnel or are unable to attract and retain additional qualified personnel, we may have to delay, reduce or eliminate some or all of our research and development programs.

On September 22, 2000 we announced that George Dunbar, our acting President and Chief Executive Officer, would be phasing out his service. Mr. Dunbar will continue in his position on a reduced time basis during this transition period. We are actively seeking to hire a permanent chief executive officer, but we can give no assurance that we will be able to find a candidate possessing the necessary qualifications. If we are unable to hire and retain a qualified chief executive officer, our business and operations could suffer materially.

HEALTHCARE INSURERS AND OTHER ORGANIZATIONS MAY NOT PAY FOR OUR PRODUCTS OR MAY IMPOSE LIMITS ON REIMBURSEMENTS.

In both domestic and foreign markets, sales of potential products are likely to depend in part upon the availability and amounts of reimbursement from third party health care payor organizations, including government agencies, private health care insurers and other health care payors such as health maintenance organizations and self-insured employee plans. There is considerable pressure to reduce the cost of therapeutic products, and government and other third party payors are increasingly attempting to contain health care costs by limiting both coverage and the level of reimbursement for new therapeutic products,

and by refusing, in some cases, to provide any coverage for uses of approved products for disease indications for which the Food and Drug Administration has not granted marketing approval. Significant uncertainty exists as to the reimbursement status of newly approved health care products. We can give no assurance that reimbursement will be provided by such payors at all or without substantial delay, or, if such reimbursement is provided, that the approved reimbursement amounts will be sufficient to enable us to sell products we develop on a profitable basis. Changes in reimbursement policy could also adversely affect the willingness of pharmaceutical companies to collaborate with us on the development of our stem cell technology.

In certain foreign markets, pricing or profitability of prescription pharmaceuticals is subject to government control. We expect that there will continue to be a number of Federal and state proposals to implement government control over health care costs. Efforts at healthcare reform are likely to continue in future legislative sessions. We do not know what legislative proposals Federal or state governments will adopt or what actions Federal, state or private payers for healthcare goods and services may take in response to healthcare reform proposals or legislation. We cannot predict the effect government control and other healthcare reforms may have on our business.

OUR QUARTERLY OPERATING RESULTS MAY FLUCTUATE.

Our operating results have varied, and may in the future continue to vary, significantly from quarter to quarter due to a variety of factors. These factors include the receipt of one-time license or milestone payments under collaborative agreements, costs associated with the wind-down of our encapsulated cell therapy programs, variation in the level of expenses related to our research and development efforts, receipt of grants or other support for our research and development efforts, and other factors. Quarterly comparisons of our financial results are not necessarily meaningful and you should not rely upon them as an indication of future performance. Our stock price may be volatile and this volatility could result in lawsuits or make it difficult to raise capital. The market price for our common stock has been volatile and could decline below the offering price for the shares. We believe that the market price for our common stock could fluctuate substantially due to some or all of the risk factors enumerated above.

The stock market has recently experienced extreme price and volume fluctuations. These fluctuations have especially affected the market price of the stock of many high technology and health care-related companies. Such fluctuations have often been unrelated to the operating performance of these companies. Nonetheless, these broad market fluctuations may negatively affect the market price of our common stock. In the past, companies that have experienced volatility in the market price of their stock have been the objects of securities class action litigation. If we were the object of securities class action litigation, we could incur material costs and suffer a diversion of our management's attention and resources. In addition, volatility in our stock price may make it difficult for us to obtain additional capital resources through financings on terms acceptable to us.

EVENTS WITH RESPECT TO OUR SHARE CAPITAL COULD CAUSE THE PRICE OF OUR COMMON STOCK TO DECLINE.

Sales of substantial amounts of our common stock on the open market, or the availability of such shares for sale, could adversely affect the price of our common stock. In particular, as of October 31, 2000, we had outstanding stock options to purchase approximately 2,566,530 shares of common stock, at an average exercise price of approximately $4.402 per share, subject to adjustment in certain circumstances. Of this total, options covering approximately 941,309 shares are currently exercisable at an average exercise price of approximately $4.742 per share.