AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON AUGUST 3, 2001

REGISTRATION NO. 333-

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

STEMCELLS, INC.
(Exact name of registrant as specified in its charter)

DELAWARE	2836	94-3078125
(State or other Jurisdiction of Incorporation or Organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification No.)

3155 PORTER DRIVE
PALO ALTO, CA 94304
(650) 475-3100
(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

IRIS BREST, ESQ.
STEMCELLS, INC.
3155 PORTER DRIVE
PALO ALTO, CA 94304
(650) 475-3100
(Name, address, including zip code, and telephone number, including area code, of agent for service)

COPIES TO:
GEOFFREY B. DAVIS, ESQ.
Ropes & Gray
One International Place
Boston, Massachusetts 02110
(617) 951-7000
(617) 951-7050 (fax)

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC: As soon as practicable after this Registration Statement becomes effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. /X/

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. / /

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. / /

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. / /

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. / /

CALCULATION OF REGISTRATION FEE

TITLE OF EACH CLASS OF SECURITIES TO BE REGISTERED	AMOUNT TO BE REGISTERED	PROPOSED MAXIMUM OFFERING PRICE PER SHARE(1)	PROPOSED MAXIMUM AGGREGATE OFFERING PRICE(1)	AMOUNT OF REGISTRATION FEE
Common Stock, par value $.01 per share.....	1,900,000 shares	$4.275	$8,122,500	$2,031

(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) of the Securities Act of 1933, based on the average of the high and low prices as reported on the Nasdaq National Market on August 2, 2001.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(a), MAY DETERMINE.

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SUBJECT TO COMPLETION, DATED AUGUST 3, 2001

THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. WE MAY NOT SELL THESE SECURITIES UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PROSPECTUS IS NOT AN OFFER TO SELL THESE SECURITIES AND IT IS NOT SOLICITING AN OFFER TO BUY THESE SECURITIES IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED.

PROSPECTUS

STEMCELLS, INC.
1,900,000 SHARES OF COMMON STOCK

The selling stockholder listed on page 49 of this prospectus or in an accompanying supplement to this prospectus is offering to sell up to 1,900,000 shares of our common stock.

Our common stock is listed on the Nasdaq National Market under the symbol "STEM." The last reported sale price for our common stock on the Nasdaq National Market on August 2, 2001 was $4.29 per share.

THE SECURITIES OFFERED HEREBY INVOLVE A HIGH DEGREE OF RISK.
SEE "RISK FACTORS" BEGINNING ON PAGE 5.

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION NOR HAS THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

THE DATE OF THIS PROSPECTUS IS , 2001.

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PROSPECTUS SUMMARY

THIS SUMMARY HIGHLIGHTS IMPORTANT INFORMATION REGARDING OUR BUSINESS AND THIS OFFERING. BECAUSE THIS IS ONLY A SUMMARY, IT DOES NOT CONTAIN ALL THE INFORMATION THAT MAY BE IMPORTANT TO YOU. YOU SHOULD READ THE ENTIRE PROSPECTUS CAREFULLY, INCLUDING "RISK FACTORS" AND OUR FINANCIAL STATEMENTS AND RELATED NOTES, BEFORE DECIDING TO INVEST IN OUR COMMON STOCK.

STEMCELLS, INC.

We are engaged in research and development efforts focused on the identification, isolation and expansion of stem cells as the underlying technology for developing potential cell transplant therapies. Stem cells are key cells in the body that produce all of the functional mature cell types found in normal, healthy individuals. Our goal is to develop therapies that will use stem cells to repopulate or repair tissues, such as those of the brain, pancreas or liver, that have been damaged or lost as a result of disease or injury. All of our programs are currently at the discovery or pre-clinical stage.

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.

We believe that our stem cell technologies, if successfully developed, may provide the basis for effective therapies for these and other conditions. Our aim is to return patients to productive lives and significantly reduce the substantial health care costs often associated with these diseases and disorders. We have made significant progress toward developing stem cell therapies for the nervous system by identifying and characterizing the human central nervous system stem cell. We have also made significant advances in our search for the stem cells of the pancreas and the liver by identifying novel markers on the surface of cells so they can be isolated and tested to determine whether they are stem cells.

We have established our intellectual property position with respect to stem cell therapies for each of these three areas--the central nervous system, the pancreas and the liver--by patenting or seeking patent protection for our discoveries and by entering into exclusive licensing arrangements. Our portfolio of issued patents includes a method of culturing normal human neural stem cells in our proprietary medium, and our published studies show that our cultured and expanded cells give rise to all three major cell types of the central nervous system. In addition, the Company recently announced the results of a new study that showed that human brain stem cells can be successfully isolated with the use of 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 neural stem cells, and we have applied for a composition of matter patent. We also have filed an improved process patent for the growth and expansion of these purified normal human neural cells.

Historical Note: We were formerly known as CytoTherapeutics and were incorporated in Delaware in 1988. We currently have one subsidiary, StemCells California, Inc., a California corporation we acquired in September 1997. Until mid-1999, we had programs in a different technology, encapsulated cell therapy, as well as stem cell programs. In 1999, we embarked on a major restructuring of our research and development operations and sold the encapsulated cell therapy technology. We now focus exclusively on the discovery, development and commercialization of our proprietary platform of stem cell technologies.

RECENT DEVELOPMENTS

SALE OF MODEX SHARES

On April 30, 2001, we sold 103,577 shares in Modex Therapeutics, Ltd., a Swiss biotherapeutics company, for a net price of 87.30 Swiss Francs per share, which converts to approximately $50.30, for total proceeds of approximately $5,200,000, net of commissions and fees. We no longer hold any shares of Modex. See "Business--Corporate Collaboration."

COMMON STOCK PURCHASE AGREEMENT RELATING TO EQUITY LINE

On May 10, 2001, we entered into a common stock purchase agreement with Sativum Investments Limited for the potential future issuance and sale of up to $30,000,000 of our common stock, subject to restrictions and other obligations that are described throughout this prospectus. We, at our sole discretion, may draw down on this facility, sometimes termed an equity line, from time to time, and Sativum is obligated to purchase shares of our common stock at a 6% discount to a volume weighted average market price over the 20 trading days following the drawdown notice. Our volume weighted average market price is calculated by adding the total dollars traded in every transaction in a given trading day and dividing that number by the total number of shares traded during that trading day. We are limited with respect to how often we can exercise a drawdown and the amount of each drawdown. In connection with the equity line, we issued a warrant to purchase 250,000 shares of common stock to Sativum and warrants to purchase an aggregate of 100,000 shares of common stock to placement agents, all at $2.38 per share. Our placement agents have exercised their warrants in full.

We delivered a draw down notice to Sativum Investments Limited, dated as of July 11, 2001, in connection with the common stock purchase agreement dated as of May 10, 2001 evidencing an equity line facility between us and Sativum. In the draw down notice, we notified Sativum that we are exercising our right to sell up to $5,000,000 of our common stock to Sativum based on the formula in the stock purchase agreement, during the 20 trading days beginning on July 12, 2001, and ending on August 8, 2001. During the first 10 trading days, Sativum purchased a total of 425,134 shares of our common stock at an average purchase

price of $5.88 per share, net of Sativum's discount of six percent. Our placement agents, Pacific Crest Securities, Inc. and Granite Financial Group, Inc. received $50,000 and $25,000, respectively, as placement fees in connection with this draw down, resulting in net proceeds to us of $2,424,000 for the first 10 trading day settlement period after paying escrow fees.

On July 2, 2001, the Securities and Exchange Commission declared effective a registration statement with respect to up to 10,350,000 shares of our common stock which we may issue pursuant to the common stock purchase agreement and related warrants. We are not required to purchase any shares under the equity line and cannot sell more than 3,922,606 shares pursuant to the agreement without stockholder approval.

ISSUANCE OF NEW PATENTS

On June 7, 2001, we announced the issuance to us of two new patents that further our proprietary position in our neural and pancreatic research programs. The first patent is a process patent that covers a novel method to separate neural stem cells for growth in culture. The second patent covers a unique model useful for identifying stem cells for the pancreas and liver. With these new patents, we now own or have exclusive license to 25 issued U.S. patents in the neural stem cell field, as well as fifteen U.S. applications, including two that have been allowed, and pending foreign counterparts.

ISSUANCE OF SHARES AND WARRANTS TO MILLENNIUM PARTNERS

On June 8, 2001, Millennium Partners, L.P. exercised an option to purchase $2,000,000 of our common stock that it received in connection with an earlier purchase of our common stock. At the closing on June 21, 2001, Millennium purchased 457,750 shares of our common stock at $4.3692 per share. We received $1,500,000 of the purchase price at the closing on June 21, 2001, and we will receive

the remaining $500,000 upon effectiveness of the registration statement of which this prospectus forms a part. Millennium also received a warrant to purchase 50,352 shares of our common stock at a price per share of $4.7664. This warrant is callable by us at any time at $7.944 per underlying share. In addition, Millennium received an adjustable warrant similar to the adjustable warrant issued to Millennium on August 3, 2000. See "Description of Capital Stock--Warrants." We agreed to file a registration statement covering resales of the issued shares and the shares underlying the warrants from time to time by Millennium. See "Selling Stockholder."

Our principal executive office is located at 3155 Porter Drive, Palo Alto, California 94304 and our telephone number is (650) 475-3100. We maintain a website on the Internet at WWW.STEMCELLSINC.COM. Our website, and the information contained therein, is not a part of this prospectus.

THE OFFERING

Common stock offered	Up to 1,900,000 shares of common stock offered for resale by the selling stockholder. See "Selling Stockholder." None of these shares will be offered by us.
Use of proceeds	We will not receive any of the proceeds of the resale of shares covered by this prospectus.
Nasdaq National market symbol	STEM

SUMMARY CONSOLIDATED FINANCIAL DATA

The following tables summarize the consolidated financial data for our business. You should read this table together with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and notes included elsewhere in this prospectus.

	THREE MONTHS ENDED	YEAR ENDED DECEMBER 31,			MARCH

31,					
1998	1999	2000	2000	2001	
					(IN THOUSANDS, EXCEPT INCOME PER SHARE DATA)
CONSOLIDATED STATEMENT OF OPERATIONS DATA:					
Revenue from collaborative agreements and grants	$ 8,803	$ 5,022	$ 74	$ --	$ 100
Gain on sale of investment	--	--	1,428	--	2,550
Research and development expenses	17,659	9,984	5,979	907	1,644
ECT wind-down expenses	--	--	6,048	3,327	234
Net income (loss)	$(12,628)	$(15,709)	$(11,125)	$(1,794)	$ 269

AS OF DECEMBER 31, 2000	AS OF MARCH 31, 2001	
		(IN THOUSANDS)
CONSOLIDATED BALANCE SHEET DATA:		
Cash, cash equivalents and marketable securities	$ 6,069	$ 4,499
Restricted investments	16,356	8,413
Total assets	29,795	21,507
Long-term debt, including capitalized leases	2,605	2,521
Stockholders' equity	22,982	15,462

In July 1999 we began restructuring the company to focus solely on our stem cell technology. As part of this restructuring we terminated all activities related to our former encapsulated cell technology and we relocated our headquarters from Rhode Island to California. The results shown for the year ended December 31, 1999 and 2000 includes $6,047,806 and $3,327,360, respectively, in expenses related to the restructuring. For more information on this restructuring see "Business" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and notes included elsewhere in this prospectus.

During 2000, in connection with our investment in Modex Therapeutics, Ltd., a Swiss biotechnology company that completed an initial public offering on June 23, 2000, we realized a $1,427,686 gain and recognized an increase in value related to our remaining holdings of $16,356,334 as of December 31, 2000. During the three months ended March 31, 2001, we realized a gain of $2,550,000 in connection with further sales of Modex shares. After a subsequent sale on April 30, 2001, we no longer hold any shares of Modex. For more information on Modex, see "Recent Developments" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and notes included elsewhere in this prospectus.

RISK FACTORS

THE OFFERING INVOLVES A HIGH DEGREE OF RISK. YOU SHOULD CAREFULLY CONSIDER THE RISKS DESCRIBED BELOW AND THE OTHER INFORMATION IN THIS PROSPECTUS BEFORE MAKING AN INVESTMENT DECISION REGARDING STEMCELLS, INC.OUR BUSINESS, FINANCIAL CONDITION OR RESULTS OF OPERATIONS COULD BE MATERIALLY ADVERSELY AFFECTED IF ANY OF THESE RISKS ACTUALLY OCCUR. 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 COMMERCIALLY ACCEPTABLE 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 product. We may fail to discover the stem cells we are seeking, to develop any products, to obtain regulatory approvals, to enter clinical trials, or to commercialize any products. Any product using stem cell technology may fail to:

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

In addition, our products may cause undesirable side effects. Results of early pre-clinical research may not be indicative of the results that will be obtained in later stages of pre-clinical or clinical research. If regulatory authorities do not approve our products, or if we fail to maintain regulatory compliance, we would have limited ability to commercialize our products, and our business and results of operations would be harmed. Furthermore, because stem cells are a new form of therapy, the marketplace may not accept any products we may develop.

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

WE HAVE PAYMENT OBLIGATIONS RESULTING FROM REAL PROPERTY OWNED OR LEASED BY US IN RHODE ISLAND, WHICH DIVERTS FUNDING FROM OUR STEM CELL RESEARCH AND DEVELOPMENT.

Prior to our reorganization in 1999 and the consolidation of our business in California, we carried out our encapsulated cell therapy programs in Lincoln, Rhode Island, where we also had our administrative offices. Although we have vacated the Rhode Island facilities, we remain obligated to make lease payments and operating costs of approximately $1,200,000 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, which we own. 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. In March 2001, our landlord approved a sublease of part of the premises.

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

Equity and debt financings alone may not be sufficient to fund the cost of developing our stem cell technologies, and we may need to rely on our ability to reach partnering arrangements to provide financial support for our stem cell discovery and development efforts. In addition, in order to

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

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

We have incurred $130,229,646 in operating losses through March 31, 2001 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 currently 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.

IF WE ARE UNABLE TO PROTECT OUR PATENTS AND PROPRIETARY RIGHTS, OUR BUSINESS, FINANCIAL CONDITION AND RESULTS OF OPERATION WILL BE HARMED.

We own or license a number of patents and 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. We cannot be certain that we were the first to make the inventions covered by each of our pending patent applications or that we were the first to file patent applications for such inventions because patent applications are secret until patents are issued in the United States or until the applications are published in foreign countries, and because publication of discoveries in the scientific or patent literature often lags behind actual discoveries. Patents may not issue from our pending or future patent applications or, if issued, may not be of commercial benefit to us, or may not afford us adequate protection from competing products. In addition, third parties may challenge our patents or governmental authorities may declare them invalid. In the event that a third party has also filed a patent application relating to inventions claimed in our patent applications, we may have to participate in proceedings to determine priority of invention. This could result in substantial uncertainties and cost for us, even if the eventual outcome is favorable to us, and the outcome might not be favorable to us. Even if a patent issues, a court could decide that the patent was issued invalidly.

Proprietary trade secrets and unpatented know-how are also important to our research and development activities. We cannot be certain that others will not independently develop the same or

similar technologies on their own or gain access to our trade secrets or disclose such technology, or that we will be able to meaningfully protect our trade secrets and unpatented know-how and keep them secret. We require our employees, consultants, and significant scientific collaborators and sponsored researchers to execute confidentiality agreements upon the commencement of an employment or consulting relationship with us. These agreements may, however, fail to provide meaningful protection or adequate remedies for us in the event of unauthorized use, transfer or disclosure of such information or inventions.

IF OTHERS ARE FIRST TO DISCOVER AND PATENT THE STEM CELLS WE ARE SEEKING TO DISCOVER, WE COULD BE BLOCKED FROM FURTHER WORK ON THOSE STEM CELLS.

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

WE MAY BE UNABLE TO OBTAIN NECESSARY LICENSES TO THIRD PARTY PATENTS AND OTHER RIGHTS.

A number of pharmaceutical, biotechnology and other companies, universities and research institutions have filed patent applications or have received patents relating to cell therapy, stem cells and other technologies potentially relevant to or necessary for our expected products. We cannot predict which, if any, of the applications will issue as patents. If third party patents or patent applications contain claims infringed by our technology and these claims are valid, we may be unable to obtain licenses to these patents at a reasonable cost, if at all, and may also be unable to develop or obtain alternative technology. If we are unable to obtain such licenses at a reasonable cost, our business could be significantly harmed.

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

WE COMPETE WITH COMPANIES THAT HAVE SIGNIFICANT ADVANTAGES OVER US.

The market for therapeutic products 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 the ones we are developing, 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 IS SUBJECT TO AND RESTRICTED BY 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 and restricted by extensive regulation by governmental authorities in the United States and other countries. The process of obtaining U.S. Food and Drug Administration and other necessary regulatory approvals is lengthy, expensive and uncertain. We or our collaborators may fail to obtain the necessary approvals to commence or continue clinical testing or to manufacture or market our potential products in reasonable time frames, if at all. In addition, the U.S. Congress and other legislative bodies may enact regulatory reforms or restrictions on the development of new therapies that could adversely affect the regulatory environment in which we operate or the development of any products we may develop.

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

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

WE DEPEND ON A LIMITED NUMBER OF KEY PERSONNEL.

We are highly dependent on the principal members of our management and scientific staff and some of our outside consultants, including the members of our scientific advisory board, our chief executive officer, 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, rather than permanent employees, in key management and scientific positions. 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 that we do not otherwise have and that 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. 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.

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

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

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

We have limited liquidity and capital resources and must obtain substantial additional capital to support our research and development programs, for acquisition of technology and intellectual property rights, and, to the extent we decide to undertake these activities ourselves, for pre-clinical and clinical testing of our anticipated products, pursuit of regulatory approvals, establishment of production capabilities, establishment of marketing and sales capabilities and distribution channels, and general administrative expenses. If we do not obtain the necessary capital resources, we may have to delay, reduce or eliminate some or all of our research and development programs or license our technology or any potential products to third parties rather than commercializing them ourselves.

If we are unable to draw down on our equity line or choose not to do so, we intend to pursue our needed capital resources through equity and debt financings, corporate alliances, grants and collaborative research arrangements. See "Management's Discussion and Analysis of Financial Condition and Results of Operation--Liquidity and Capital Resources." We may fail to obtain the necessary capital resources from any such sources when needed or on terms acceptable to us. Our ability to complete any such arrangements successfully will depend upon market conditions and, more specifically, on continued progress in our research and development efforts. We are prohibited from entering into other stand-by equity based credit facilities during the term of the common stock purchase agreement that governs our equity line.

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

Our common stock is quoted on the Nasdaq National Market. In order to continue to be included in the Nasdaq National Market, a company must meet Nasdaq's maintenance criteria. The maintenance criteria most applicable to us requires a minimum bid price of $1.00 per share, $4,000,000 in net tangible assets and $5,000,000 market value of the public float. The public float excludes shares held directly or indirectly by any of our officers, directors and holders of 10% or more of our outstanding common stock. As of March 31, 2001, we had approximately $15.4 million of net tangible assets. As of May 24, 2001, the market value of our public float was approximately $71.6 million, and the lowest bid price of our common stock since March 31, 2001 was $1.47. We cannot assure you that we will continue to meet these listing criteria. The issuance by us of shares of common stock to Sativum, or the

subsequent resale by investors of those shares, in either case at a discount to

the market price, may cause the trading price of our common stock to fall to a level below the Nasdaq minimum bid price requirement. Failure to meet these maintenance criteria may result in the delisting of our common stock from the Nasdaq National Market. If our common stock is delisted and in order to have our common stock relisted on the Nasdaq National Market, we would be required to meet the criteria for initial listing, which are more stringent than the maintenance criteria. Accordingly, we cannot assure you that if we were delisted we would be able to have our common stock relisted on the Nasdaq National Market.

If our common stock were delisted from the Nasdaq National Market, we would not be able to draw down any additional funds on the equity line, and we also may be required to pay damages to other holders of our common stock under agreements we previously entered into with them in connection with equity financings. Finally, if our common stock were removed from listing on the Nasdaq National Market, it might become more difficult for us to raise funds through the sale of our common stock or securities convertible into our common stock.

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.

INDUSTRY AND MARKET DATA

In this prospectus, we rely on and refer to information and statistics regarding disease occurrences, costs of treatment, biotechnology, and the market sectors in which we may compete in the future. We obtained this information and statistics from various third party sources, discussions with our consultants and/or our own internal estimates. We believe that these sources and estimates are reliable, but we have not independently verified them.

USE OF PROCEEDS

We will not receive any of the proceeds from the resale of shares offered by the selling stockholder under this prospectus.

PRICE RANGE OF COMMON STOCK

Our common stock is quoted on the Nasdaq National Market under the symbol "STEM." The following table sets forth the high and low sale prices of our common stock for the periods indicated on the Nasdaq National Market.

	COMMON STOCK PRICE	
	HIGH	LOW
1999 First Quarter	$ 1.78	$1.16
1999 Second Quarter	$ 1.37	$0.53
1999 Third Quarter	$ 2.38	$0.69
1999 Fourth Quarter	$ 1.62	$1.00
2000 First Quarter	$20.00	$1.38
2000 Second Quarter	$ 8.06	$2.00
2000 Third Quarter		

2000.....
$11.67 $3.53 Fourth Quarter
2000.....
$ 6.75 $2.25 First Quarter
2001.....
$ 3.75 $1.72 Second Quarter
2001.....
$ 6.15 $1.47

There were approximately 287 record holders of our common stock as of April 25, 2001. On August 2, 2001, the reported last sale price on the Nasdaq National Market for our common stock was $4.29 per share.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our common stock. We currently intend to retain any future earnings to fund the development and growth of our business. We do not, therefore, anticipate paying any cash dividends within the next five years. Any future determination to pay dividends will be at the discretion of our board of directors and will be dependent on then existing conditions, including our financial stability, results of operations, contractual restrictions, capital requirements, business prospects and other factors our board of directors deems relevant.

CAPITALIZATION

The following table presents our consolidated capitalization as of March 31, 2001. This table excludes:

- 3,511,457 shares of common stock issuable upon the exercise of outstanding stock options and warrants as follows:

  a) as of March 31, 2001, 3,164,618 shares of common stock issuable upon the exercise of stock options pursuant to our stock option plans at a weighted average price of $4.11 per share.

  b) 171,839 shares of common stock issuable upon the exercise of warrants held by Millennium Partners, L.P. at a weighted average exercise price of $4.89 per share.

  c) 100,000 shares of common stock issued or issuable upon the exercise of warrants granted to May Davis Group, Inc. and four of its affiliates at an exercise price of $5.0375 per share.

  d) 75,000 shares of common stock issuable upon the exercise of warrants at $6.58 per share held by holders of our 6% cumulative convertible preferred stock.

- 457,750 shares of common stock sold to Millennium on June 21, 2001, other shares issuable upon exercise of an adjustable warrant issued to Millennium on June 21, 2001, and additional shares issuable upon exercise of an adjustable warrant issued August 3, 2000.

- 622,469 shares of common stock issued upon the exercise of a warrant held by Millennium at an exercise price of $0.01 per share.

- additional shares of common stock issuable upon exercise of a warrant held by Millennium at an exercise price of $0.01 per share following a warrant adjustment date on July 27, 2001.

- The right of the holders of our 6% cumulative convertible preferred stock to convert their shares of preferred stock into shares of common stock at $3.77 per share.

- 100,000 shares of common stock issuable upon exercise of warrants held by Pacific Crest Securities, Inc. and Granite Financial Group, Inc. at an exercise price of $2.38.

This table should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and notes thereto included elsewhere in this prospectus.

AS OF MARCH 31, 2001 ---------- (UNAUDITED)
Stockholders' equity: Convertible Preferred Stock, par value $0.01 per share, 1,000,000 shares authorized, 2,626 designated as 6% Cumulative Convertible Preferred Stock, 1,500 shares issued.....

$ 1,500,000 Common stock, par value $0.01 per share, 45,000,000 shares authorized, 21,458,211 shares issued..... 214,612 Additional paid-in-capital..... 137,608,696 Accumulated deficit..... (130,229,646) Accumulated other comprehensive income..... 8,412,650 Deferred compensation..... (2,044,609) ---------- Total stockholders' equity..... $ 15,461,703 ==========

SELECTED CONSOLIDATED FINANCIAL DATA

The following selected consolidated financial data should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and notes to those statements and other financial information included elsewhere in this prospectus.

The consolidated historical financial data presented below as of December 31, 1996, 1997, 1998, 1999 and 2000 and for the years then ended are derived from our consolidated financial statements, which have been audited by Ernst & Young LLP, our independent auditors. The selected consolidated financial data as of March 31, 2001, and for the three months ended March 31, 2000 and 2001 are derived from our unaudited financial statements. In the opinion of our management, the unaudited financial statements have been prepared on the same basis as the audited consolidated financial statements and include all adjustments (consisting only of normal recurring adjustments) necessary for a fair presentation of the financial position and results of operations for such periods. The selected consolidated financial data for the three months ended March 31, 2001 are not necessarily indicative of the results that may be expected for the year ended December 31, 2001 or any other future period.

	THREE MONTHS ENDED MARCH 31,						YEAR ENDED DECEMBER 31,						(UNAUDITED)
	1996	1997	1998	1999	2000	2000	2001						
	(IN THOUSANDS, EXCEPT INCOME PER SHARE DATA)												
CONSOLIDATED STATEMENT OF OPERATIONS DATA:													
Revenue from collaborative agreements and grants	$ 7,104	$ 10,617	$ 8,803	$ 5,022	$ 74	$ --	$ 100						
Gain on sale of investment	--	--	--	--	1,428	--	2,550						
Research and development expenses	17,130	18,604	17,659	9,984	5,979	907	1,644						
Acquired research and development	--	8,344	--	--	--	--	--						
ECT wind-down and corporate relocation expenses	--	--	--	6,048	3,327	234	--						
Net income (loss)	$(13,759)	$(18,114)	$(12,628)	$(15,709)	$(11,125)	$(1,794)	$ 269						
Basic and diluted net income (loss) per share applicable to common stockholders before cumulative effect of a change in accounting principle	$ (0.89)	$ (1.08)	$ (0.69)	$ (0.84)	$ (0.57)	$ (0.09)	$ 0.01						
Cumulative effect of a change in accounting principle	--	--	--	(0.01)	--	--	--						
Net income (loss) per share applicable to common stockholders	$ (0.89)	$ (1.08)	$ (0.69)	$ (0.84)	$ (0.58)	$							

(0.09) $ 0.01 Shares used in computing basic net income (loss) per share.....	15,430	16,704	18,291	18,706	20,068	19,330	20,989
Shares used in computing diluted income (loss) per share.....	15,430	16,704	18,291	18,706	20,068	19,330	22,405

AS OF	AS OF	DECEMBER 31,				MARCH 31,
1996	1997	1998	1999	2000	2001	
(IN THOUSANDS) CONSOLIDATED BALANCE SHEET DATA: Cash, cash equivalents and marketable securities.....	$42,607	$29,050	$17,386	$ 4,760	$ 6,069	$ 4,499
Restricted investments.....	--	--	--	--	--	16,356
Total assets.....	58,397	44,301	32,866	15,781	29,795	21,507
Long-term debt, including capitalized leases.....	8,223	4,108	3,762	2,937	2,605	2,521
Redeemable common stock.....	8,159	5,583	5,249	5,249	--	--
Stockholders' equity.....	34,747	28,900	17,897	3,506	22,982	15,462

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 THREE MONTHS ENDED MARCH 31, 2001 AND 2000 AND THE YEARS ENDED DECEMBER 31, 2000, 1999 AND 1998 SHOULD BE READ IN CONJUNCTION WITH THE "SELECTED CONSOLIDATED FINANCIAL DATA" SECTION OF THIS PROSPECTUS AND OUR CONSOLIDATED FINANCIAL STATEMENTS AND NOTES TO THOSE STATEMENTS AND OTHER FINANCIAL INFORMATION INCLUDED ELSEWHERE IN THIS PROSPECTUS. THE FORWARD-LOOKING STATEMENTS IN THIS DISCUSSION REGARDING OUR EXPECTATIONS REGARDING OUR FUTURE PERFORMANCE, LIQUIDITY AND CAPITAL RESOURCES AND OTHER NON-HISTORICAL STATEMENTS IN THIS DISCUSSION INVOLVE NUMEROUS RISKS AND UNCERTAINTIES AS DESCRIBED IN THE "RISK FACTORS" SECTION OF THIS PROSPECTUS. OUR ACTUAL RESULTS MAY DIFFER MATERIALLY FROM THOSE CONTAINED IN ANY FORWARD-LOOKING STATEMENTS.

RESULTS OF OPERATIONS

OVERVIEW

Since our inception in 1988, we have been primarily engaged in research and development of human therapeutic products. At the beginning of 1999, our corporate headquarters, most of our employees, and the main focus of our operations were primarily devoted to a different technology--encapsulated cell therapy, 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, we sold the ECT and we relocated from Rhode Island to California. As a result of a restructuring in the second half of 1999, our sole focus is now on our stem cell technology. The year 2000 was a year of transition, in which we completed the consolidation and restructuring of our operations. Comparisons with results of operations prior to 2000 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 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, sale of marketable securities and the initiation or termination of research collaborations, in addition to the winding-down of terminated research and development programs referred to above.

THREE MONTHS ENDED MARCH 31, 2001 AND 2000

For the three months ended March 31, 2001, revenues from grants totaled $100,000. There was no such revenue for the three months ended March 31, 2000.

On January 9, 2001, we sold 22,616 Modex shares for a net price of 182.00 Swiss francs per share, which converts to $112.76 per share, for total proceeds and a realized gain of $2,550,000.

Research and development expenses totaled $1,644,257 for the three months ended March 31, 2001, compared with $906,632 for the same period in 2000. The increase of $737,625 or 81% from 2000 to 2001 was primarily attributable to the related costs of an increase in personnel from 11 full time

employees to 19 full time employees to facilitate the expansion of our research programs and initiate development and the cost of leasing a larger facility.

General and administrative expenses were $996,862 for the three months ended March 31, 2001, compared with $657,714 for the same period in 2000. The increase of $339,148, or 52%, from 2000 to 2001 was primarily attributable to the related costs of an increase in personnel from 5 full time employees to 8 full time employees, which included the hiring of senior management personnel as part of the restructuring and consolidation of our operations in California and the cost of leasing a larger facility.

Wind-down expenses related to our ECT research, our Rhode Island operations and the transfer of our headquarters to California for the three months ended March 31, 2000 were $234,386. In December 2000, we created a reserve of $1,780,578 related to the carrying costs for the Rhode Island facilities through 2001. At March 31, 2001 the reserve was $1,381,946.

Interest income for the three months ended March 31, 2001 and 2000 was $79,041 and $73,332 respectively. Interest expense of $64,460 for the three months ended March 31, 2001 was booked against the wind-down reserve created in 2000 for the whole of 2001, as the expense was part of the bond payments related to the Rhode Island facilities. Interest expense for the same period in 2000 was $68,858. The decrease in 2001 was attributable to lower outstanding debt and capital lease balances in 2001 compared to 2000.

Other income for the three months ended March 31, 2001 was $180,389, which was a refund from the Citizens Bank of Rhode Island for an overpayment of property taxes in prior years.

Net income for the three months ended March 31, 2001 was $268,541 or $0.01 per share, as compared to net loss of $1,794,258, or $0.09 per share, for the comparable period in 2000. The decrease in net loss of $2,062,800 or 115% from the same period in 2000 was primarily attributable to a realized gain of $2,550,230 from the sale of a portion of our Modex investment, offset by an increase in expenses attributable to an increase in personnel and the costs associated with our move to a larger facility.

YEARS ENDED DECEMBER 31, 2000, 1999 AND 1998

Revenues totaled $74,000, $5,022,000 and $8,803,000 for the years ending December 31, 2000, 1999 and 1998, respectively. Revenues for 2000 are from Neurotech, S.A. in return for the assignment of our intellectual property assets relating to Encapsulated Cell Technology. Revenues for 1999 and 1998 were from collaborative agreements, earned primarily from a Development, Marketing and License Agreement with AstraZeneca Group plc, which was signed in March 1995. The decrease in revenues from 1998 to 1999 to 2000 resulted primarily from the June 1999 termination of the Astra agreement.

Research and development expenses totaled $5,979,000 in 2000, as compared to $9,984,000 in 1999 and $17,659,000 in 1998. The decrease of $4,005,000, or 40%, from 1999 to 2000 and the decrease of $7,675,000 or 43%, from 1998 to 1999, was primarily attributable to the wind-down of research activities relating to our encapsulated cell technology, precipitated by termination of the Astra Agreement.

General and administrative expenses were $3,361,000 in 2000, compared with $4,927,000 in 1999 and $4,603,000 in 1998. The decrease of $1,566,000 or 32%, from 1999 to 2000 was primarily attributable to the relocation of our headquarters to a smaller facility as well as a reduction of personnel.

Wind-down expenses related to our ECT research, our Rhode Island operations and the transfer of our headquarters to California totaled $3,327,000 and $6,048,000 for 2000 and 1999, respectively. No such expenses were incurred in 1998. 1999 expenses included accruals of approximately $1.6 million for employee severance costs, $1.9 million in losses and reserves for the write-down of related patents and fixed assets, $1.2 million for our costs of settlement of a 1989 funding agreement with RIPSAT,

$700,000 of estimated additional carrying costs through June 30, 2000, and other related expenses totaling $760,000.

During 2000, we incurred approximately $290,000 of costs in excess of the amounts accrued as of December 31, 1999 for the carrying costs, including lease payments, property taxes and utilities, through the expected June 30, 2000 disposition of the Rhode Island facilities. During the third and fourth quarters of 2000 we incurred additional $1.3 million in carrying costs for the Rhode Island facilities, because we were unable to dispose of them as we had expected. We have created a reserve of $1,780,000 related to the carrying costs for the Rhode Island facilities through 2001. In February 2001, we subleased portions of the facilities and are actively seeking to sublease, assign or sell our remaining interests in the properties. However, there can be no assurance that we will be able to dispose of these facilities in a reasonable time, if at all.

Interest income for the years ended December 31, 2000, 1999 and 1998 totaled $303,000, $564,000 and $1,254,000, respectively. The average cash and investment balances were $5,668,000, $10,663,000 and $21,795,000 in 2000, 1999 and 1998, respectively. The decrease in interest income from 1998 to 1999 to 2000 was attributable to lower average balances.

In 2000, interest expense was $273,000, compared to $335,000 in 1999 and $472,000 in 1998. The decrease from 1998 to 1999 to 2000 was attributable to lower outstanding debt and capital lease balances.

During the second quarter 2000 we realized a $1,427,000 gain in connection with the sale of a portion of our investment in Modex. Modex Therapeutics, Ltd., a Swiss biotechnology company that completed an initial public offering on June 23, 2000, and is publicly traded on the Swiss Neue Market exchange.

The net loss in 2000, 1999 and 1998 was $11,125,000, $15,709,000, and $12,628,000, respectively. The loss per share was $0.58, $.84 and $.69 in 2000, 1999 and 1998, respectively. The decrease from 1999 to 2000 is primarily attributable to the wind-down of our encapsulated cell technology research and our Rhode Island operations and offset by the elimination of revenue from the Astra Agreement. The increase from 1998 to 1999 is primarily attributable to the elimination of revenue from the Astra Agreement, which was terminated in June 1999, as well as expenses related to the wind-down of our encapsulated cell technology research and our other Rhode Island operations, the transfer of our corporate headquarters to California and an accrual for the our estimate of the costs of settlement of a funding agreement with RIPSAT.

LIQUIDITY AND CAPITAL RESOURCES

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

We had unrestricted cash and cash equivalents totaling $4,499,000 at March 31, 2001. Cash equivalents are invested in money market funds.

Our liquidity and capital resources were, in the past, significantly affected by our relationships with corporate partners, which were related to our former encapsulated cell technology, or ECT. These relationships are now terminated, and we have not yet established corporate partnerships with respect to our stem cell technology.

In the third quarter of 1999, we announced restructuring plans to wind down 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 California. As part of our restructuring of operations and relocation of corporate headquarters to California, we identified a significant amount of excess fixed

assets. In December 1999, we completed the disposition of those excess fixed assets, from which we received more than $746,000.

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.

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 believe 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 the 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, for approximately $3,100,000, certain shares of our redeemable Common Stock held by Genentech. 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 our 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.

We continue to have outstanding obligations in regard to our former facilities in Lincoln, Rhode Island, including lease payments and operating costs of approximately $1,200,000 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.

CONVERTIBLE PREFERRED STOCK

On April 13, 2000, we sold 1,500 shares of our 6% cumulative convertible preferred stock plus warrants for a total of 75,000 shares of our common stock to two members of our Board of Directors for $1,500,000, on terms more favorable to us than we were able to obtain from outside investors. The face value of the shares of preferred stock is convertible at the option of the holders into common stock at $3.77 per share. The holders of the preferred stock have liquidation rights equal to their original investments plus accrued but unpaid dividends. Any unconverted preferred stock will be

converted to common stock, at the applicable conversion price, on April 13, 2002. The warrants expire on April 13, 2005.

MILLENNIUM PARTNERS

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 $1 billion in assets under management. The Fund purchased our common stock at $4.33 per share. The Fund is entitled, pursuant to an adjustable

warrant issued on August 3, 2000 in connection with the sale of common stock to the Fund, to purchase additional shares of common stock for $0.01 per share. The adjustments to the adjustable warrant are calculated 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 have the right, under certain circumstances, to cap the number of additional shares by purchasing part of the entitlement from the Fund. On January 27, 2001, the Fund's adjustable warrant became exercisable for 463,369 shares of our common stock, and the Fund purchased all of those shares on March 30, 2001, for $4,634. On April 27, 2001, the Fund's adjustable warrant became exercisable for an additional 622,469 shares of our common stock, and the Fund purchased all of those shares on July 19, 2001 for $6,225. The Fund also received on August 3, 2000 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 was granted an 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 paid 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 on August 23, 2000 a warrant to purchase up to 19,900 shares of common stock at $6.03 per share. This warrant is callable by us at any time at $10.05 per underlying share.

On June 8, 2001, the Fund exercised its remaining option to purchase $2 million of our common stock. At the closing on June 21, 2001, the Fund purchased 457,750 shares of our common stock at $4.3692 per share. The Fund paid $1,500,000 of the purchase price at the closing and will pay the remainder upon effectiveness of the registration statement of which this prospectus forms a part. In connection with the closing, the Fund received an adjustable warrant similar to the adjustable warrant issued on August 3, 2000. The Fund also received a warrant to purchase 50,352 shares of our common stock at a price per share of $4.7664. This warrant is callable by us at any time at $7.944 per underlying share.

MODEX

We have sold all of our shares of Modex Therapeutics, Ltd. Our final sale of Modex shares occurred on April 30, 2001, when we realized a gain of $5,232,168 net of commissions and other fees. All other sales occurred prior to March 31, 2001. In addition, on April 30, 2001, we sold Modex our rights to future payments under the agreement between us and Neurotech S.A. for $300,000.

EQUITY LINE

On May 10, 2001, we entered into a common stock purchase agreement with Sativum Investments Limited for the potential future issuance and sale of up to $30,000,000 of our common stock, subject to restrictions and other obligations that are described throughout this prospectus. We, at our sole discretion, may draw down on this facility, sometimes termed an equity line, from time to time, and Sativum is obligated to purchase shares of our common stock at a 6% discount to a volume weighted

average market price over the 20 trading days following the drawdown notice. We are limited with respect to how often we can exercise a drawdown and the amount of each drawdown. In connection with the equity line, we issued a warrant to purchase 250,000 shares of common stock to Sativum and warrants to purchase an aggregate of 100,000 shares of common stock to placement agents, all at $2.38 per share. Our placement agents, Pacific Crest Securities, Inc., and Granite Financial Group, Inc., have exercised their warrants in full.

We delivered a draw down notice to Sativum Investments Limited, dated as of July 11, 2001, in connection with the common stock purchase agreement dated as of May 10, 2001 evidencing an equity line facility between us and Sativum. In the draw down notice, we notified Sativum that we are exercising our right to sell up to $5,000,000 of our common stock to Sativum based on the formula in the stock purchase agreement, during the 20 trading days beginning on July 12, 2001, and ending on August 8, 2001. During the first 10 trading days, Sativum purchased a total of 425,134 shares of our common stock at an average purchase price of $5.88 per share, net of Sativum's discount of six percent. Our placement agents, Pacific Crest Securities, Inc. and Granite Financial Group, Inc. received $50,000 and $25,000, respectively, as placement fees in connection with this draw down, resulting in net proceeds to us of $2,424,000 for the first

10 trading day settlement period after paying escrow fees.

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. Failure to do so will have a material effect on our 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, facilities or investments, government grants and funding from collaborative arrangements, if obtainable, to fund our operations.

We may, but are not required to, draw down on the equity line from time to time as necessary and possible under the terms of the facility. We also intend to pursue opportunities to obtain additional financing in the future through grants and collaborative research arrangements. We are permitted under the terms of the equity line to pursue unrelated debt and equity financing other than other stand-by equity based credit facilities. 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 us.

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 through December 2001. Our cash requirements may vary, however, depending on numerous factors. If for some reason we are not able to drawdown on the equity line, 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.

RECENT ACCOUNTING PRONOUNCEMENT

In June 1998, the Financial Accounting Standards Board issued SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities" (SFAS 133). The statement requires us to recognize all derivatives on the balance sheet at fair value. Derivatives that are not hedges must be adjusted to fair

value through income. If the derivative is a hedge, depending on the nature of the hedge, changes in fair value of derivatives are either offset against the change in fair value of assets, liabilities, or firm commitments through earnings or recognized in other comprehensive income until the hedged item is recognized in earnings. Because we had no derivative instruments and do not currently engage in hedging activities, the adoption of Statement No. 133 on January 1, 2001 had no impact on our results of operations or financial position.

BUSINESS

OVERVIEW

We are engaged in research aimed at the development of therapies that would use stem and progenitor cells derived from fetal or adult sources to treat, and possibly cure, human diseases and injuries such as Parkinson's disease, hepatitis, diabetes, and spinal cord injuries. The body uses certain key cells known as stem cells to produce all the functional mature cell types found in normal organs of healthy individuals. Progenitor cells are cells that have already developed from the stem cells, but can still 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.

We were formerly known as CytoTherapeutics, Inc. Until mid-1990 we had programs in a different technology, encapsulated cell therapy, as well as stem cell programs. We now focus exclusively on the discovery, development and commercialization of our proprietary platform of stem cell technologies. Effective May 2000 we changed our name to StemCells, Inc.

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 that are essential to life. When cells are damaged or destroyed, they no longer produce, metabolize or accurately regulate these 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, obtaining the cells often requires significant surgical procedures. The challenge, therefore, has been three-fold:

- to identify the stem cells;
- to create techniques and processes that we can use to expand these rare cells in sufficient quantities for effective transplants; and
- to establish a bank of normal human stem or progenitor cells that we can use 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, cells modified by a cancer gene, an unpurified mixture of many different cell types, or 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 hosts accept CNS stem cells that are transplanted into them, and that the cells continue to migrate and 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 alliances in these key 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 exist for many systems of the human body: the blood and immune system; the central and peripheral nervous systems (including the brain); and the liver, pancreas endocrine, and skin systems. These cells are responsible for organ regeneration during normal cell replacement and, to a 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 disease, injury or genetic defect has damaged or destroyed.

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. 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 that we sponsored that used 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 markers present on the surface of freshly obtained brain cells can successfully isolate human central nervous system stem 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 to therapies that are based on cells derived from cancer cells, cells modified by a cancer gene, an unpurified mixture of cell types, or animal-derived cells. 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 to research and develop human central nervous system stem and progenitor cell-based therapies for these diseases.

We continue to research 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 loss of nervous system tissue.

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 research the isolation and development of a series of stem and progenitor cells that would 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. The table is qualified in its entirety by reference to the more detailed descriptions of such programs appearing elsewhere in this prospectus. We continually evaluate our research and product development and reallocate resources in light of experimental results, commercial potential, availability of third party funding, likelihood of near-term efficacy, collaboration success or significant technology enhancement, or other relevant factors. Our research and product development programs are in 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 - Demonstrated IN VITRO the ability to system tissue (including spinal cord, initiate and expand stem cell-containing degenerated retinas and tissue affected by human neural cultures and specialization certain genetic disorders) 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 - Identified markers on the surface of cells tissue to isolate and culture islet stem cells of the pancreas - Commenced small animal testing LIVER STEM CELL RESEARCH Repair or replace damaged liver tissue - Demonstrated the production of hepatocytes including tissue resulting from certain from purified mouse

hematopoietic stem metabolic genetic diseases 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

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(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

Currently, 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. We believe that therapies using stem cells represent a fundamentally new approach to the treatment of diseases caused by lost or damaged tissue. We 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 NeuroSpheres first invented these cultures. Further, NeuroSpheres granted us exclusive, worldwide licenses, encompassing all uses, to numerous inventions

and associated patents and patent applications. These inventions and associated patents and patent applications are subsequently noted in the section entitled "License Agreements and Sponsored Research Agreements--NeuroSpheres, Ltd."

In 1997, our scientists invented a reproducible method for growing human central nervous system, 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, or CNS. 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. The US Patent and Trademark Office has since allowed a patent on those methods. We are expanding our preclinical efforts toward the goal of selecting the proper indications to pursue.

In December 1998, we announced that the U.S. Patent and Trademark Office had granted patent No. 5,851,832. This patent covered 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 U.S. 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 U.S. 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 using 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. The unmodified cells are normal human CNS stem cells and, therefore, may be especially suitable for transplantation. In addition, the cells may provide a safer and more effective alternative to therapies 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 took purified and expanded stem cells and transplanted them into the normal brains of immunodeficient mouse hosts, where they took hold and grew into neurons and glial cells.

Throughout 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. In addition, this technology could 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

Nora Sarvetnick, Ph.D., of The Scripps Research Institute, in collaboration with some of our senior researchers, has conducted our discovery program directed to the identification, isolation and culturing of the pancreas stem and progenitor cells. It is our intention to bring the research on stem and

progenitor cells of the pancreas in house. We expect that Dr. Sarvetnick will continue to consult with us.

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. Dr. Sarvetnick and her research team identified these novel markers 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 using 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. In addition, we 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 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. Further, we 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. Failing to meet this criteria caused AstraZeneca to terminate the collaboration in June 1999.

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 California. We subleased a portion of our former corporate headquarters building and our pilot manufacturing and cell processing facility in Rhode Island are actively seeking to sublease, assign or sell our interest in the remainder.

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 transferred these rights to royalties and other payments to Modex. 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.

SUBSIDIARY

STEMCELLS CALIFORNIA, INC.

On September 26, 1997, we acquired by merger the California corporation StemCells, Inc., currently StemCells California, Inc., 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 COLLABORATIONS

CORPORATE INVESTMENT

In July 1996, we, together with certain founding scientists, established Modex Therapeutics, Ltd., a Swiss biotherapeutics company, to pursue extensions of our former technology of ECT for certain applications outside the central nervous system. We, along with the scientists, formed Modex, headquartered in Lausanne, Switzerland, 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 continued to hold approximately 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. After Modex's IPO, we owned 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 January 2, 2001 was 210.00 Swiss francs, or approximately $130.39, per share. On January 9, 2001, we sold 22,616 Modex shares for a net price of 182.00 Swiss francs per share, which converts to $112.76 per share, for total proceeds of approximately $2,550,000. In connection with this sale, we agreed not to resell any more of our remaining 103,577 Modex shares until April 12, 2001. On April 30, 2001, we sold our remaining 103,577 Modex shares for a net price of 87.30 Swiss francs per share, which converts to approximately $50.30, for proceeds from that sale of approximately $5,200,000.

LICENSE AGREEMENTS AND SPONSORED RESEARCH AGREEMENTS

SPONSORED RESEARCH AGREEMENTS

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. In addition, we entered into license agreements with the California Institute of Technology. All of these agreements relate largely to stem or progenitor cells and or to processes and methods for the isolation, identification, expansion or culturing of stem or progenitor cells.

Our research agreement with Scripps expired on November 14, 2000. It is our intention to bring the research on stem and progenitor cells of the pancreas in house. Dr. Nora Sarvetnick, who led the

research at Scripps, will continue to consult with us. Our license agreements with Scripps are not affected by the expiration of the research agreement. They

will terminate upon expiration, revocation or invalidation of the patents licensed to us, unless governmental regulations require a shorter term. In addition, these license agreements are subject to early termination 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 issued 12,800 shares of common stock amounting to $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. In addition, we 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.

LICENSE AGREEMENTS

We 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 possess 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.

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. Celgene has now acquired Signal. 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. Further, the party receiving the license can terminate the agreement at any time upon notice to the other party. Under these agreements, we must reimburse Signal for payments it must make to the University of California based on products we develop and for 50% of certain other payments Signal must make.

NEUROSPHERES, LTD.

In March 1994, we entered into a Contract Research and License Agreement with NeuroSpheres, Ltd., which was clarified in a License Agreement dated as of April 1, 1997. Under the agreement as clarified, we obtained an exclusive patent license from NeuroSpheres in the field of transplantation, subject to a limited right of NeuroSpheres to purchase a nonexclusive license from us, which right was not exercised and has expired. We developed additional intellectual property relating to the subject matter of the license. We entered into an additional license agreement with NeuroSpheres as of October 30, 2000, under which we obtained an exclusive license in the field of non-transplant uses, such as drug discovery and drug testing, so that together the licenses are exclusive for all uses of the technology. We made up-front payments to NeuroSpheres of 65,000 shares of our common stock in October 2000 and $50,000 in January 2001, and we will make additional cash payments when milestones are achieved in the non-transplant field, or in any products employing NeuroSpheres patents for generating cells of the blood and immune system from neural stem cells. In addition we reimbursed Neurospheres for patent costs amounting to $341,000. Milestone payments would total $500,000 for each product that is approved for market. Our agreements with NeuroSpheres will terminate at the expiration of all patents licensed to us, but can terminate earlier if we breach 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.

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 through appropriate testing and by 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. In addition, the carrier may be used to improve the stability and acceptance of the stem cells or their progeny. Our stem and progenitor cell programs are still in an early stage and, therefore, all of the issues surrounding the 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. We intend 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 possess an aggressive program of vigorously seeking and protecting our intellectual property which we believe might be useful in connection with our products. In addition, we believe that our know-how will 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 possess 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

neural stem cell therapy area includes 25 issued U.S. patents. An additional fifteen patent applications are pending, four of which the U.S. Patent and Trademark Office has allowed.

We own, or have filed, the following United States Patents and patent applications:

- U.S. Patent Number 5,968,829 (Human CNS neural stem cells)
- U.S. Patent Number 6,103,530 (Human CNS neural stem cells--culture media)
- U.S. Patent Number 6,238,922 (Use of collagenase in the preparation of neural stem cell cultures)
- U.S. Patent Number 6,242,666 (An animal model for identifying a common stem/progenitor to liver cells and pancreatic cells)
- Application Number WO 99/11758 (Cultures of human CNS neural stem cells)
- Application Number WO 00/36091 (An animal model for identifying a common stem/progenitor to liver cells and pancreatic cells)
- Application Number WO98/50526 (Generation, characterization, and isolation of neuroepithelial stem cells and lineage restricted intermediate precursor)
- Application Number WO 00/50572 (Use of collagenase in the preparation of neural stem cell cultures)
- Application Number WO 00/47762 (Enriched neural stem cell populations and methods of identifying, isolating, and enriching neural stem cells)

We licensed the following United States Patents or pending patent applications from Neurospheres Holdings Ltd.:

- U.S. Patent Number 5,851,832 (IN VITRO proliferation)
- U.S. Patent Number 5,750,376 (IN VITRO genetic modification)
- U.S. Patent Number 5,981,165 (IN VITRO production of dopaminergic cells from mammalian central nervous system multipotent stem cell compositions)

- U.S. Patent Number 6,093,531 (Generation of hematopoietic cells from multipotent neural stem cells)

- U.S. Patent Number 5,980,885 (Methods for inducing IN VIVO proliferation of precursor cells)

- U.S. Patent Number 6,071,889 (Methods for IN VIVO transfer of a nucleic acid sequence to proliferating neural cells)

- U.S. Patent Number 6,165,783 (Methods of inducing differentiation of multipotent neural stem cells)

- Application Number WO 93/01275 (Mammalian central nervous system multipotent stem cell compositions)

- Application Number WO 94/09119 (Remyelination using mammalian central nervous system multipotent stem cell compositions)

- Application Number WO 94/10292 (Biological factors useful in differentiating mammalian central nervous system multipotent stem cell compositions)

- Application Number WO 94/16718 (Genetically engineered mammalian central nervous system multipotent stem cell compositions)

- Application Number WO 96/15224 (Differentiation of mammalian central nervous system multipotent stem cell compositions)

- Application Number WO 99/2196 (Erythropoietin-mediated neurogenesis)

- Application Number WO 99/16863 (Generation of hematopoietic cells)

- Application Number WO 98/22127 (Pretreatment with growth factors to protect against CNS damage)

- Application Number WO 97/3560 (IN SITU manipulation of cells of the hippocampus)

- Application Number WO 96/09543 (IN VITRO models of CNS functions and dysfunctions)

- Application Number WO 95/13364 (IN SITU modification and manipulation of stem cells of the CNS)

- Application Number WO 96/15226 (IN VITRO production of dopaminergic cells from mammalian central nervous system multipotent stem cell composition)

- Application Number WO 96/15266 (Regulation of neural stem cell proliferation).

We licensed the following United States Patents or pending patent applications from the University of California, San Diego:

- U.S. Patent Number 5,776,948 (Method of production of neuroblasts)

- U.S. Patent Number 6,013,521 (Method of production of neuroblasts)

- U.S. Patent Number 6,020,197 (Method of production of neuroblasts)

- Application Number WO 94/16059 (Method of production of neuroblasts)

- Application Number WO 00/52143 (Methods of enriching a population of uncultured cells).

We licensed the following United States Patents or pending patent applications from the California Institute of Technology:

- U.S. Patent Number 5,629,159 (Immortalization and disimmortalization of cells)

- Application Number WO 96/40877 (Immortalization and disimmortalization of cells)

- U.S. Patent Number 5,935,811 (Neuron restrictive silencer factor proteins)

- Application Number WO 96/27665 (Neuron restrictive silencer factor proteins)

- U.S. Patent Number 5,589,376 (Mammalian neural crest stem cells)

- U.S. Patent Number 5,824,489 (Methods for isolating mammalian multipotent neural crest stem cells)

- Application Number WO 94/02593 (Mammalian neural crest stem cells)

- U.S. Patent Number 5,654,183 (Genetically engineered mammalian neural crest stem cells)

- U.S. Patent Number 5,928,947 (Mammalian multipotent neural crest stem cells)

- U.S. Patent Number 5,693,482 (IN VITRO neural crest stem cell assay)

- U.S. Patent Number 6,001,654 (Methods for differentiating neural stem cells to neurons or smooth muscle cells (TGFb))

- Application Number WO 98/48001 (Methods for differentiating neural stem cells to neurons or smooth muscle cells (TGFb))

- U.S. Patent Number 5,672,499 (Methods for immortalizing multipotent neural crest stem cells)

- U.S. Patent Number 5,849,553 (Immortalizing and disimmortalizing multipotent neural crest stem cells)

- U.S. 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. For instance, 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 it believes may be important to the development of its 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 neural and pancreatic stem cells.

COMPETITION

The targeted disease states for our initial products in some instances currently have no effective long-term therapies. We do, however, 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 possess 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.

In addition, we may face competition from companies that 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 are subject to regulation by numerous governmental authorities in the United States and other countries. The future manufacturing and marketing of our potential products will be likewise regulated.

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 and the Public Health Service Act, as well as other Federal and state statutes and regulations, govern 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	Preclinical tests include laboratory evaluation of tests 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 The results of the preclinical tests are submitted application for an Investigational New to the FDA as part of an IND, and the IND becomes Drug Exemption, or IND, which must become effective 30 days following its receipt by the effective before human clinical trials in FDA, as long as there are no questions, requests the U.S. may commence for delay or objections from the FDA.

STEPS	CONSIDERATIONS
---	Clinical trials involve the evaluation of the product in healthy volunteers or, in a small 3. Adequate and well- controlled human number of patients under the supervision of a clinical trials to establish the safety qualified physician. Clinical trials are conducted and efficacy of the product in accordance with protocols that detail the objectives of

the study, steps 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, which the FDA determines. Each protocol is submitted to the FDA as part of the IND. An independent Institutional Review Board, or IRB, at the institution at which the study is conducted must approve the protocol for each clinical study and obtain the informed consent of all participants. 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 subjects to test for

adverse reactions, dosage tolerance, absorption and distribution, metabolism, excretion and clinical pharmacology. - Phase II studies 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 proves to be effective and safe in Phase II evaluations, Phase III trials begin. - Phase III trials are undertaken to conclusively demonstrate clinical efficacy and 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 require discontinuance at any time if significant safety issues arise. 4. Submission to

the FDA of marketing The results of the preclinical and clinical authorization applications studies are submitted to the FDA.

STEPS	CONSIDERATIONS
--- 5. FDA approval of the application(s)	The testing and approval process will require prior to any commercial sale or shipment substantial time, effort and expense. A number of of the drug. Biologic product factors, including relative risks and benefits manufacturing establishments located in demonstrated in clinical trials, the availability certain states also may be subject to of alternative treatments and the severity of the separate regulatory and licensing disease affect the timing. The FDA might request requirement additional animal studies which would also add to the time.

After the FDA approves the initial indications and the manufacturing facility, it might require further clinical trials to grant approval to use 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. It may also 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. However, 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. The FDA normally holds inspections at least every two years. The FDA, as well as foreign regulatory authorities with reciprocal inspection agreements, may periodically inspect foreign manufacturing facilities. Foreign authorities may also inspect domestic manufacturing facilities.

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. Drug manufacturers can also seek orphan drug status for treatments for diseases or conditions that affect more than 200,000 individuals in the United States if the manufacturer 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 receive a seven-year period of marketing exclusivity in the United States for that product. 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.

PROPOSED FDA REGULATIONS

Proposed regulations of the FDA and other governmental agencies would place restrictions on researchers who have a financial interest in the outcome of their research. Under the proposed regulations, the FDA could apply heightened scrutiny to studies conducted by such researchers when reviewing applications to the FDA. 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 it might take. Restrictions exist on the testing or use of cells, whether human or non-human.

OTHER REGULATIONS

In addition, we are also subject to regulations under the Occupational Safety and Health Act, the Environmental Protection Act, the Toxic Substances Control Act and other foreign, Federal, state and local regulations.

Outside the United States, we will be subject to regulations that govern the import of drugs, as well as foreign regulatory requirements governing human clinical trials and marketing approval. The requirements 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 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 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 continuing efforts of governmental and third party payers to contain or reduce the cost of health care have affected the revenues and profitability of some health-care related companies. Payers are increasingly attempting to limit

both coverage and the level of reimbursement for new therapeutic products that the FDA approves. In some cases, they are refusing to provide any coverage 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 May 23, 2001, we had 28 full-time employees, eight of whom have Ph.D. degrees. The equivalent of 21 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. We believe our relationships with our employees are good.

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 other entities that limit their availability to us. The Scientific Advisory Board members have generally agreed, however, for so long as they serve as consultants to us, not to provide any services to any other entities that would conflict with the services the member provides to us. 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.

- 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.

MANAGEMENT

DIRECTORS, EXECUTIVE OFFICERS AND KEY EMPLOYEES

The following table sets forth the name, age as of December 31, 2000, and position of each of our executive officers, key members of management, and directors.

NAME AGE POSITION - ---- --------
---------- --------- John J. Schwartz,
Ph.D..... 67
Director, Chairman of the Board
Martin M.
McGlynn.....
54 Director, President and Chief
Executive Officer Mark J.
Levin.....
50 Director Roger M. Perlmutter
M.D., Ph.D..... 48
Director Irving L. Weissman,
M.D..... 61
Director Ann Tsukamoto,

Ph.D..... 48
Vice President, Scientific
Operations

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- - JOHN J. SCHWARTZ, PH.D., was elected to the board of directors in December 1998 and was elected Chairman of the board at the same time. He was formerly Senior Vice President and General Counsel of SyStemix, Inc. from 1993 to 1995, and then President and Chief Executive Officer of SyStemix, Inc. from 1995 to 1997. Dr. Schwartz is currently President of Quantum Strategies Management Company, a registered investment advisor located in Atherton, California. Prior to his positions at SyStemix, he served as Assistant Professor and a Vice President and General Counsel at Stanford University in California. Dr. Schwartz graduated from Harvard Law School in 1958 and received his Ph.D. in physics from the University of Rochester in 1966.

- - MARTIN M. MCGLYNN joined us on January 15, 2001 when he was appointed President and Chief Executive Officer of us and our wholly-owned subsidiary, StemCells California, Inc. From 1994 until he joined us, Mr. McGlynn was President and Chief Executive Officer of Pharmadigm, Inc., a privately held company in Salt Lake City, Utah, engaged in research and development in the fields of inflammation and genetic immunization. Mr. McGlynn received a bachelor of commerce degree from University College, Dublin, Ireland in 1968, a diploma in industrial engineering from the Irish Institute of Industrial Engineering in 1970, and a diploma in production planning from the University of Birmingham, England in 1971.

- - MARK J. LEVIN is a founder and has served as a director since our inception in 1988. From inception until January 1990 and from May 1990 until February 1991, Mr. Levin served as our President and acting Chief Executive Officer. From November 1991 until March 1992, he served as Chief Executive Officer of Tularik, Inc., a biotechnology company. From August 1991 until August 1993, Mr. Levin was Chief Executive Officer and a director of Focal, Inc., a biomedical company. Mr. Levin is currently the Chairman and Chief Executive Officer of Millennium Pharmaceuticals, Inc., a biotechnology company. Mr. Levin is also currently on the boards of directors of Focal, Inc. and Tularik, Inc.

- - ROGER M. PERLMUTTER, M.D., PH.D., was elected to the board of directors in December 2000. Dr. Perlmutter is Executive Vice President, Research and Development, of Amgen, Inc., a position he has held since January 2001. Prior to joining Amgen, Dr. Perlmutter was Executive Vice President, Worldwide Basic Research and Preclinical Development, Merck Research Laboratories, a division of Merck & Co., Inc., a position he held since August 1999. He joined Merck in February 1997 as Senior Vice President, Merck Research Laboratories, from February 1997 to December 1998 and as Executive Vice President from February 1999 to July 1999. Prior to joining Merck, Dr. Perlmutter was a professor in the Departments of Immunology, Biochemistry and Medicine at the University of Washington from January 1991 to January 1997 and served as chairman of the Department of Immunology at the University of Washington from May 1989 to January 1997. He also was an Investigator at the Howard Hughes Medical Institute from July 1984 to

February 1997. Dr Perlmutter has been a member of the board of directors of The Irvington Institute for Immunological Research since 1997 and of the Institute for Systems Biology since 1999.

- - IRVING L. WEISSMAN, M.D., has served as a director since September 1997. He has been a consultant to us since September 1997 and is the Chairman of our Scientific Advisory Board. He is the Karel and Avice Beekhuis Professor of Cancer Biology, Professor of Pathology and Professor of Developmental Biology at Stanford University. Dr. Weissman is a cofounder of SyStemix, Inc., and a former 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 a member of the National Academy of Sciences.

- - ANN TSUKAMOTO, PH.D., joined us in November 1997 as Senior Director, Scientific Operations, and was appointed Vice President, Scientific Operations in June 1998. From 1989 until she joined us, Dr. Tsukamoto was employed at SyStemix, Inc., where she served in various research capacities before transitioning to the position of Director of Clinical Science. At SyStemix, Inc., Dr. Tsukamoto assisted in the launch of its clinical research program for the hematopoietic stem cell. She received her Ph.D. degree from the University of California, Los Angeles and did postdoctoral research with Dr. Harold Varmus at the University of California, San Francisco. Dr. Tsukamoto is an inventor on six issued U.S. Patents related to the human hematopoietic stem cell. As of March 5, 2001, Dr. Tsukamoto became a member of

the Board of Directors for the Society of Regenerative Medicine and Stem Cell Biology.

BOARD COMPOSITION

Our certificate of incorporation and by-laws provide for the classification of the board of directors into three classes, as nearly equal in number as possible, with the term of office of one class expiring each year. Dr. Weissman is in the class of directors whose term expires at our annual meeting in 2002. Mr. McGlynn and Dr. Perlmutter are in the class of directors whose term expires in 2003. Mr. Levin and Dr. Schwartz are in the class of directors whose term expires in 2004. There are no family relationships between any of our directors or executive officers. Our executive officers are elected by, and serve at the discretion of, the board of directors.

DIRECTOR COMPENSATION

We currently pay no additional remuneration to Mr. McGlynn, our president and chief executive officer, for his service as a director.

One of our non-employee directors, Dr. Weissman, also serves us as a compensated consultant. See "Related Party Transactions--Compensation Paid to Dr. Weissman."

We have adopted the following methodology for compensating our directors: upon election or appointment to an initial term on the board, we will grant a director an option to purchase 20,000 shares at fair market value, which option will vest ratably over 3 years. On the third anniversary date, each re-elected director will be granted an additional option to purchase 15,000 shares at fair market value, which option will vest ratably over 3 years. In addition, each director will receive a retainer of $18,000 annually and the Chairman of the board of directors will receive a retainer of $35,000 annually, each payable in options to purchase our common stock at $.25 per share.

COMMITTEES OF THE BOARD OF DIRECTORS

Our board of directors has an audit committee, a compensation and stock option committee and a single-member stock option committee. The board may also establish other committees to assist in the discharge of its responsibilities.

The audit committee oversees our financial reporting process on behalf of the board of directors, makes recommendations to the board regarding the independent auditors to be nominated for election by the stockholders, reviews the independence of such auditors, approves the scope of their annual audit activities, reviews their audit results, assures that our financial reporting is of high quality, and reviews the interim financial statements with our management and the independent auditors prior to the filing of our Quarterly Report on Form 10-Q. Dr. Schwartz, Dr. Perlmutter and Mr. Levin make up the audit committee.

The duties of the compensation and stock option committee are to make recommendations to the board and our management concerning salaries in general, determine executive compensation, and approve incentive compensation. The compensation and stock option committee currently comprises Mr. Levin and Dr. Schwartz. The single-member stock option committee has limited authority to make stock option grants to our employees, other than officers and directors, under our 2001 Equity Incentive Plan. Mr. McGlynn is the sole member of this committee.

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

The following non-employee directors served on the compensation and stock option committee in 2000: Mr. Levin and Dr. Schwartz. In 1989, 1990 and 1991, Mr. Levin was one of our executive officers.

We entered into a consulting services agreement with Dr. Schwartz on July 27, 1998, as amended December 19, 1998, for strategic business advice and counseling services, including assistance in the negotiation and consummation of strategic collaboration transactions specified by us. Dr. Schwartz was elected to the Board of Directors on December 19, 1998 and became a member of the compensation and stock option committee on that date. During the fiscal year ended December 31, 1999, we made payments to Dr. Schwartz under the consulting services agreement and the letter agreement dated December 19, 1998 and amended as of July 1, 1999, under which he served as a Director and Chairman of the Board. See "Related Party Transactions." Both the consulting services agreement and the letter agreement were terminated as of March 31, 2001.

We believe the terms of these agreements were no less favorable to us than could have been obtained from unaffiliated third parties.

EXECUTIVE COMPENSATION

The following table sets forth the compensation paid by us to our Chief Executive Officers during the fiscal years ended December 31, 2000, 1999 and 1998 and the two other most highly compensated executive officers who served in such capacities during the fiscal year ended December 31, 2000. There were no other persons serving as executive officers at the end of such fiscal year.

SUMMARY COMPENSATION TABLE

NAME AND PRINCIPAL POSITION	YEAR	SALARY($)	BONUS($)	LONG TERM COMPENSATION - SECURITIES UNDERLYING OPTIONS(#)	ALL OTHER COMPENSATION
GEORGE W. DUNBAR, JR.					
Acting President and Chief Executive Officer(1)	2000	186,538	50,000	36,031	--
	1999				
RICHARD M. ROSE M.D.					
Chief Executive Officer(2)	2000	309,632	--	--	--
	1999	279,974	--	--	4,667(3)
	1998	286,553	--	150,000(4)	11,330(5)
ANN TSUKAMOTO, PH.D.					
VP, Scientific Operations	2000	159,054	--	--	4,783(6)
RONNDA BARTEL, PH.D.					
VP, Scientific Development(7)	2000	129,668	--	--	3,245(8)

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(1) Mr. Dunbar became Acting President and Chief Executive Officer effective as of February 1, 2000, and resigned from that position effective as of January 15, 2001.

(2) Dr. Rose became Chief Executive Officer on September 26, 1997. Dr. Rose resigned as a director and officer of the company and its wholly owned subsidiary effective as of January 31, 2000.

(3) Represents the personal portion of the use of a company vehicle, as well as $5,000 of fair market value of our matching contributions of common stock to Dr. Rose's account in the company's 401(k) Plan.

(4) Represents the regrant of an option in the original amount of 200,000 shares which was reduced to 150,000 shares as a result of the employee equity incentive repricing plan approved by the Board of Directors on July 10,1998.

(5) Represents $4,666.56 of fair market value of the company matching contributions of common stock to Dr. Rose's account in our 401(k) Plan.

(6) Represents $4,783 of fair market value of the company matching contributions of common stock to Dr. Tsukamoto.

(7) Dr. Bartel resigned as of July 13, 2001.

(8) Represents $3,245 of fair market value of the company matching contributions of common stock to Dr. Bartel.

OPTION GRANTS IN LAST YEAR

The following table provides information on option grants in 2000 to Mr. Dunbar, the only named executive officer to be granted options in 2000.

OPTION GRANTS IN LAST YEAR

NAME	NUMBER OF SECURITIES UNDERLYING OPTIONS GRANTED 2000(1)	PERCENT OF TOTAL OPTIONS GRANTED TO EMPLOYEES IN 2000	EXERCISE PRICE ($/SHARE)	EXPIRATION DATE	POTENTIAL REALIZABLE VALUE AT ASSUMED ANNUAL RATES OF STOCK PRICE APPRECIATION FOR OPTION TERM(2) 0% ($)	5%($)	10%($)
George W. Dunbar, Jr.	73,000(3)	22%	1.094	10/15/01	271,998	307,120	345,580
	12,031(3)	4%	4.156	10/15/01	13,162	19,467	26,371

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(1) We granted options covering 330,031 shares of common stock to employees in the fiscal year ended December 31, 2000.

(2) The exercise price may be paid by delivery of already-owned shares and tax withholding obligations related to exercise may be paid by offset of the underlying shares, subject to certain conditions.

(3) As of December 31, 2000, options for 85,031 shares were fully vested.

OPTION EXERCISES IN LAST YEAR AND YEAR-END OPTION VALUES

The following table provides information about option exercises in 2000 by the named executive officers and the value of such officers' unexercised options on December 31, 2000.

AGGREGATED OPTION EXERCISES IN 2000 AND YEAR-END OPTION VALUES

NAME	NUMBER OF SECURITIES

UNDERLYING UNEXERCISED VALUE OF UNEXERCISED OPTIONS AT IN-THE-MONEY OPTIONS AT SHARES FISCAL YEAR-END FISCAL YEAR-END($) (1) ACQUIRED ON VALUE --- --- --- --- --- NAME EXERCISE(#) REALIZED($) EXERCISABLE UNEXERCISABLE EXERCISABLE UNEXERCISABLE - ---- ----- ------ ----- ------ ----- ------ ----- -------- --- -------- --- ----------
Richard M. Rose, M.D..... 156,250 865,328 -- 93,750 -- --
George W. Dunbar, Jr..... 42,000 209,160 24,031 -- 11,248 --
Ann Tsukamoto, Ph.D..... -- -- 78,082 33,168 29,638 35,161
Ronnda Bartel, Ph.D..... -- -- 19,270 33,230 24,814 43,058

- ------------------------

(1) Value is based on the difference between the aggregate option exercise price and the fair market value as of December 31, 2000. The fair market value of the common stock is based on the closing price of the our common stock on December 29, 2000 (the last trading day of 2000) on the Nasdaq National Market, which was $2.50.

EMPLOYMENT CONTRACTS, TERMINATION OF EMPLOYMENT AND CHANGE OF CONTROL ARRANGEMENTS

Martin McGlynn joined the company as President and Chief Executive Officer on January 15, 2001. Under the terms of an agreement between Mr. McGlynn and us, Mr. McGlynn is entitled to an annual base salary of $275,000 per year, reviewable annually by the board of directors, and a bonus, in the board's sole discretion, of up to 25% of his base salary. Mr. McGlynn was granted an option to purchase 400,000 shares of common stock with an exercise price equal to the fair market value of the common stock on the date of his employment. One-fourth of these options will vest on the first anniversary of his employment and the remaining three-fourths will vest in equal monthly installments during his second through fourth years of employment. The board may, in its sole

discretion, grant Mr. McGlynn a bonus option to purchase up to an additional 25,000 shares. The vesting under the option is subject to acceleration in the event of certain changes of control. We also agreed to pay Mr. McGlynn a $50,000 relocation bonus and reimburse him for relocation expenses. Our agreement with Mr. McGlynn provides that if his employment is terminated by us without cause or by

Mr. McGlynn for good reason, he will be entitled to severance payments equal to one year's base salary and he will receive healthcare benefits under our plans for one year after termination. If Mr. McGlynn's employment is terminated as a result of his disability, he will receive up to six months' base salary. If we terminate Mr. McGlynn's employment for cause or if he resigns without good reason, he will not be entitled to any severance or other benefits.

STOCK PLANS AND RELATED TRANSACTIONS

In April 2001, our board of directors adopted the 2001 Equity Incentive Plan, subject to stockholder approval, which was obtained at our annual meeting on May 31, 2001.

The purpose of the Plan is to advance our interests by enhancing our ability to attract and retain executive officers, employees, directors and other persons or entities providing services to us who are in a position to make significant contributions to our success, and to reward participants for such contributions, through ownership of shares of our common stock. The Plan is intended to accomplish these goals by enabling us to grant awards in the form of options, stock appreciation rights, restricted stock, unrestricted stock or deferred stock, or performance awards, loans or supplemental grants or combinations thereof, all as more fully described below. The Plan is the successor to both our 1992 Equity Incentive Plan and our 1992 Stock Option Plan for Non-Employee Directors. No awards may be made under either of the 1992 plans after February 12, 2002.

The Plan is administered by our board of directors. Under the Plan, the board may grant stock options, stock appreciation rights, restricted stock, unrestricted stock, deferred stock, and performance awards (in cash or stock), or combinations thereof, and may waive the terms and conditions of any award. A total of 3,000,000 shares of common stock may be issued under the Plan. Employees, including executive officers, directors and other persons or entities providing services to us or its subsidiaries who are in a position to make a significant contribution to our success are eligible to receive awards under the Plan.

The exercise price of an incentive stock option ("ISO") granted under the Plan or an option intended to qualify as performance-based compensation under Section 162(m) of the Code shall not be less than 100% of the fair market value of the stock at the time of grant. The board determines the exercise price of a non-ISO granted under the Plan. No stock options may be granted under the Plan after March 28, 2011, but stock options previously granted may extend beyond that date. The exercise price may be paid in cash or by check. Subject to certain additional limitations, the board may also permit the exercise price to be paid by tendering shares of stock, by delivery of a promissory note, by delivery to us of an undertaking by a broker to deliver promptly sufficient funds to pay the exercise price, or a combination of the foregoing.

Stock appreciation rights ("SARs") may be granted either alone or in tandem with stock option grants. Each SAR entitles the holder on exercise to receive an amount in cash or stock or a combination thereof (such form to be determined by the board) determined in whole or in part by reference to appreciation in the fair market value of a share of Stock. SARs may be based solely on appreciation in the fair market value of stock or on a comparison of such appreciation with some other measure of market growth.

The Plan provides for awards of nontransferable shares of restricted stock subject to forfeiture, as well as unrestricted shares of stock. Shares of restricted stock may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated until the end of the applicable period and the satisfaction of any other conditions or restrictions established by the board. Except as the Plan otherwise specifically provides, if a participant ceases to be an employee or ceases to continue the consulting or other similar relationship engaged in by such participant with us for any reason other than death during the restricted period, then the restricted stock must be offered to us for purchase for the amount of cash paid for the restricted stock, or forfeited to us if no cash was paid. The Plan also

provides for deferred grants entitling the recipient to receive shares of stock in the future at such times and on such conditions as the board may specify.

The Plan provides for performance awards entitling the recipient to receive without payment cash or stock or a combination thereof following the attainment of performance goals determined by the board. In the case of any performance award intended to qualify for the performance-based remuneration exception described in Section 162(m) of the Code, the board will in writing pre-establish specific performance goals that are based upon any one or more operational, result or event-specific goals.

The Plan provides that the board has full authority to decide whether to make a loan to a participant in connection with the purchase of stock under an award or with the payment of any applicable income tax recognized as a result of an award. The Plan also provides that, in connection with any award, the board may provide for and grant a cash award with certain limitations as to the amount of the supplemental grant.

Except as otherwise provided by the board, if a participant dies, options and SARs exercisable immediately prior to death may be exercised by the participant's executor, administrator or transferee during a period of one year following such death (or for the remainder of their original term, if less). Options and SARs not exercisable at a participant's death terminate. In the case of termination for reasons other than death, options and SARs remain exercisable, to the extent they were exercisable immediately prior to termination, for three months (or for the remainder of their original term, if less); provided that if in the Board's judgment the reason for the award holder's termination casts discredit on us sufficient to justify immediate termination of the award, then such award will immediately terminate.

In the case of certain mergers, consolidations or other transactions in which we are acquired or is liquidated and there is a surviving or acquiring corporation, the Plan permits the board to arrange for the assumption of awards outstanding under the Plan or the grant to participants of replacement awards by that corporation. All outstanding awards not assumed by the surviving or acquiring corporation shall become exercisable immediately prior to the consummation of such merger, consolidation or other transaction and upon such consummation all outstanding awards that have not been assumed or replaced will terminate.

The board may amend the Plan or any outstanding award at any time, provided that no such amendment will, without the approval of our stockholders, effectuate a change for which shareholder approval is required in order for the Plan to continue to qualify for the award of ISOs under Section 422 of the Code or for the award of performance-based compensation under Section 162(m) of the Code.

The future benefits or amounts that would be received under the Plan by the executive officers and the non-executive officer employees are discretionary and are therefore not determinable at this time.

The 2001 Equity Incentive Plan became effective as of May 31, 2001. On August 3, 2001, we filed a registration statement on Form S-8 covering the shares underlying the options authorized by the 2001 Equity Incentive Plan.

RELATED PARTY TRANSACTIONS

COMPENSATION PAID TO DR. SCHWARTZ

Dr. Schwartz, a member and Chairman of the board of directors, was retained in July 1998 under a consulting services agreement to serve as a consultant to us rendering strategic business advice and counseling services, including assistance in the negotiation and consummation of strategic collaboration transactions specified by us. The consulting services agreement provided for compensation to Dr. Schwartz in the amount of $50,000 in cash for services rendered during the period of September 27, 1997 through July 26, 1998, plus a fully vested option to purchase 20,000 shares of our common stock at $1.281, the fair market value of our common stock at the time of the grant. For services rendered during the term of the consulting services agreement, Dr. Schwartz was entitled to total cash compensation of $120,000, an option to purchase 76,000 shares of our common stock with an exercise price equal to the closing bid price for the shares on July 27, 1998, and an option to purchase 48,000 shares of our common stock at the then current fair market value of our common stock on July 27, 1999, vesting at a rate of 2,000 shares per month. In addition, the consulting services agreement provided that in the event that, at a time when Dr. Schwartz was not a member of the board of directors but the consulting services agreement was still in effect, Dr. Schwartz materially participated in the negotiation and consummation of a strategic collaboration transaction specified by us, he would have been be entitled to receive additional compensation equal to 3% of the transaction consideration, payable half in cash and half in the form of an option or warrant to purchase shares of our common

stock at $.20 per share, the number of shares being calculated based on the fair market value of our common stock ten days prior to the first public announcement of the consummation of, the execution of a letter of intent for, or the existence of discussions concerning the collaboration transaction. There have been no such strategic collaboration transactions that would have given rise to additional compensation.

On December 19, 1998, Dr. Schwartz became a member of the board of directors and its Chairman and his compensation for services in this capacity was provided for under the terms of a letter agreement, which also incorporated certain compensation provided for under the consulting services agreement. Under the letter agreement, as amended July 1, 1999, Dr. Schwartz in his capacity as Chairman was entitled to receive $132,000 in cash per year, plus $1,500 per board or committee meeting and $500 per telephonic meeting. He also received an option to acquire 40,000 shares of our common stock under the 1992 Equity Incentive Plan, with an exercise price equal to the fair market value on the date of the grant. The time requirement for his position was set at thirty business days per quarter. Dr. Schwartz canceled both the letter agreement and the consulting services agreement as of March 31, 2001. He currently continues to serve in his position as Chairman and member of the board of directors under the terms of the compensation policy recently approved by the directors. See "Management--Director Compensation."

COMPENSATION PAID TO DR. WEISSMAN

Dr. Weissman, a member of the board of directors, was retained in September 1997 to serve as a consultant to us. Pursuant to his consulting agreement, Dr. Weissman has agreed to provide consulting services to us and serve on our Scientific Advisory Board. We agreed to pay Dr. Weissman $50,000 per year for his services and granted him an option to purchase 500,000 shares of common stock for $5.25 per share, of which 31,250 shares vested at the date of grant. Originally, the remainder of the option would have vested upon the occurrence of certain milestones related to our stem cell research program and in the event of certain changes of control. We agreed to amend the option on October 27, 2000 so that the shares would become exercisable over eight years from the original grant date or in the event of certain changes of control. We recorded compensation expense of $823,759 during the fourth quarter of 2000 as a result of this change in the vested portion of the option. The deferred compensation

expense associated with the unvested portion of the grants was recorded as $669,116. We plan to revalue the options using the Black-Scholes method on a quarterly basis and recognize additional compensation expense accordingly. We also agreed in September 1997 to nominate Dr. Weissman for a position on the board of directors. Dr. Weissman's consulting agreement contains confidentiality, noncompetition, and assignment of invention provisions and is for a term of fifteen years, subject to earlier termination by us for cause or frustration of purpose and earlier termination by Dr. Weissman for good reason. Dr. Weissman initially received no compensation as a member of the board of directors or for attending meetings of the board or its committees or meetings of our Scientific Advisory Board, but was reimbursed for reasonable expenses he incurred in attending such meetings. In October 2000, we agreed with Dr. Weissman that we would pay him the same compensation paid to other members of the board. See "Management--Director Compensation."

PREFERRED STOCK ISSUED TO DR. WEISSMAN AND MR. LEVIN

In April 2000, we sold 750 shares of our 6% cumulative convertible preferred stock plus a warrant to purchase 37,500 shares of our common stock at $6.58 per share to each of Dr. Weissman and Mr. Levin, each a director, for $750,000, for a total of $1,500,000, on terms more favorable to us than we were able to obtain from outside investors. The face value of the shares is convertible at the option of the holder into common stock at $3.77 per share. The holders of the preferred stock have liquidation rights equal to their original investments plus accrued but unpaid dividends. Any unconverted preferred stock will be converted into common stock on April 13, 2002. The warrants expire on April 13, 2005.

SELLING STOCKHOLDER

Millennium Partners, L.P. will be selling shares in this offering. On June 21, 2001, we issued 457,750 shares of our common stock to Millennium. At the same time we also issued to Millennium a callable warrant to purchase 50,352 shares of our common stock and an adjustable warrant for a number of shares to be determined on eight dates beginning six months after the closing and then every three months thereafter. See "Description of Capital Stock--Warrants."

On June 21, 2001, we also entered into a registration rights agreement with

Millennium in which we agreed to register the shares of our common stock purchased by Millennium on that date as well as those shares issuable upon exercise of the warrants issued to Millennium on that date. We agreed to use commercially reasonable efforts to keep the registration statement in effect for five years, until all shares covered by the registration statement are eligible for resale pursuant to Rule 144(k), or until Millennium and its transferees no longer hold the shares covered by the registration statement, whichever occurs first.

Since August 3, 2000, we have issued to Millennium a total of 2,249,273 shares of common stock. As of July 20, 2001, Millennium held 171,839 warrants to purchase shares of our common stock. In addition to the adjustable warrant described above, Millennium also holds an adjustable warrant, issued August 3, 2000, that may become exercisable for additional shares of common stock. See "Description of Capital Stock--Warrants." We agreed to register all shares of common stock issued on August 3, 2000 or thereafter in connection with that transaction, including shares issuable to Millennium pursuant to warrants. We have previously registered 2,160,000 shares of common stock issued or issuable to Millennium, including all shares underlying the August 3, 2000 adjustable warrant as of the completion of the first two adjustment periods.

The following table shows information regarding the beneficial ownership of our capital stock for Millennium prior to and after this offering. We have determined beneficial ownership in the table in accordance with the rules of the Securities and Exchange Commission as more specifically described in the notes below. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, we have deemed to be outstanding shares of capital stock subject to options or warrants held by that person that are currently exercisable or will become exercisable within 60 days of June 30, 2001. To our knowledge Millennium possesses sole voting and investment power with respect to all shares of common stock shown as beneficially owned by it.

SHARES OF COMMON STOCK SHARES OF COMMON STOCK BENEFICIALLY OWNED BENEFICIALLY OWNED BEFORE THIS OFFERING(2)		AFTER THIS OFFERING(4)	
NUMBER OF NUMBER OF NUMBER OF NAME OF BENEFICIAL OWNER SHARES	PERCENTAGE SHARES	OFFERED SHARES	PERCENTAGE
---- Millennium Partners, L.P. (1).....	1,803,431	7.94%	1,900,000(3)	1,295,329	5.37%

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(1) The address of Millenium Partners, L.P. is 666 Fifth Avenue, New York, New York 10103.

(2) Includes 171,839 shares issuable upon exercise of warrants. Beneficial ownership percentage is based on: these warrants; plus 21,458,211 shares of our common stock outstanding as of March 31, 2001; plus 457,750 shares issued to Millennium on June 21, 2001; plus 622,469 shares issued upon exercise of a warrant by Millennium on July 19, 2001. Information on Millennium's beneficial ownership is based in part on a Schedule 13G/A filed by Millennium on February 23, 2001 and on information provided by Millennium as of July 20, 2001. By agreement between Millennium and us, Millennium is not permitted to exercise warrants if such exercise would cause its beneficial ownership of our common stock to exceed 9.99%.

(3) Includes 457,750 outstanding shares issued on June 21, 2001 and 50,352 shares issuable upon exercise of a callable warrant issued on June 21, 2001. The remainder is an estimate of the number of shares which may become

issuable upon exercise of the adjustable warrant issued June 21, 2001 and those underlying the adjustable warrant issued August 3, 2000 that have not previously been registered by us.

(4) Includes 121,487 shares issuable upon exercise of warrants. Beneficial ownership percentage is based on: these warrants; plus 21,458,211 shares of our common stock outstanding as of March 31, 2001; plus 622,469 shares issued upon exercise of a warrant by Millennium on July 19, 2001; plus 1,900,000 shares either issued to Millennium on June 21, 2001, underlying a warrant issued on June 21, 2001 or deemed issuable upon exercise of the adjustable warrants issued on June 21, 2001 and August 3, 2000.

DESCRIPTION OF CAPITAL STOCK

GENERAL MATTERS

As of March 31, 2001, the total amount of our authorized capital stock consisted of 45,000,000 shares of common stock, $.01 par value per share, and 1,000,000 shares of authorized preferred stock, $.01 par value per share, 2,626 of which has been designated as 6% cumulative preferred stock, to be issued from time to time in one or more series, with such designations, powers, preferences, rights, qualifications, limitations and restrictions as our board of directors may determine. As of March 31, 2001, we had outstanding 21,458,211 shares of common stock and 1,500 shares of 6% cumulative convertible preferred stock.

As of March 31, 2001, we had 287 stockholders of record with respect to our common stock, and we had outstanding options and warrants to purchase 3,461,105 shares of our common stock, of which 871,386 were exercisable. The following summary of provisions of our capital stock describes all material provisions of, but does not purport to be complete and is subject to, and qualified in its entirety by, our restated certificate of incorporation and our amended and restated by-laws, which are included as exhibits to the registration statement of which this prospectus forms a part, and by the provisions of applicable law.

COMMON STOCK

The issued and outstanding shares of common stock are, and the shares of common stock to be issued by us in connection with the offering will be, validly issued, fully paid and nonassessable. Holders of our common stock are entitled to any and all dividends as such dividends are declared by the board of directors. This right is not cumulative, and no right shall accrue to holders of common stock by reason of the fact that dividends on said shares were not declared in any prior period. The shares of common stock are not convertible and the holders thereof have no preemptive or subscription rights to purchase any of our securities. Upon liquidation, dissolution or winding up of our company, the holders of common stock are entitled to an amount equal to $1.00 per share, subject to the rights of the holders of the preferred stock. After payment to the holders of the common stock of the full preferential amounts due to them, the holders of common stock have the right to share equally in the distribution of the entire remaining assets of the company legally available for distribution, subject to the rights of the holders of the preferred stock. Each outstanding share of common stock is entitled to one vote on all matters submitted to a vote of stockholders, such voting rights to be counted together with all other shares of capital stock having voting powers and not as a separate class, except as otherwise required by law.

Our common stock is traded on the Nasdaq National Market under the symbol "STEM."

PREFERRED STOCK

Our board of directors may from time to time direct the issuance of shares of preferred stock in series and may, at the time of issuance, determine the rights, preferences and limitations of each series. Shares of preferred stock of any one series shall be identical with each other in all respects except as to the dates from which dividends shall accrue and/or cumulate. In the event of any liquidation, dissolution or winding up of the company, the holders of undesignated preferred stock of each series are entitled to receive an amount fixed by our restated certificate of incorporation or by the resolution(s) of the board of directors providing for the issuance of such series.

The board of directors designated 2,626 shares, $.01 par value per share, as 6% cumulative convertible preferred stock, 1,500 shares of which are issued and outstanding. The holders of these preferred shares are entitled to receive cumulative dividends at a per share rate of 6% of the liquidation preference of each share, per annum accruing daily and compounding quarterly, with

priority over payment of any dividend on common stock or any other class or series of equity security of the company. In the event of any liquidation, dissolution or winding up of the company, the holders of the 6% cumulative convertible preferred stock are entitled to receive in preference to holders of any other class or series of equity securities, an amount equal to $1,000 per share plus (i) dividends added to the liquidation preference, (ii) all accrued but unpaid dividends and (iii) all "Monthly Delay Payments" under a registration rights agreement, dated April 13, 2000, by and between us and Irving Weissman and Mark Levin. The 6% cumulative convertible preferred stock was issued pursuant to a securities purchase agreement, dated April 13, 2000, by and between us and Irving Weissman and Mark Levin. Each holder of the 6% cumulative convertible preferred stock has at any time the right to convert any or all 6% cumulative convertible preferred stock held by such holder into fully paid, validly issued and nonassessable shares of common stock, $.01 par value per share, at which point the rights of the holders of converted 6% cumulative convertible preferred stock shall be treated as having become the owners of such common stock. The affirmative vote of a majority in interest of the outstanding 6% cumulative convertible preferred stock is required for (i) any amendment, modification or repeal of the Certificate of Designations, Certificate of Incorporation or by-laws that may amend or change or adversely affect any of the rights or preference of the 6% cumulative convertible preferred stock; provided, however, that the holders of 6% cumulative convertible preferred stock who are affiliates of the company shall not participate in such votes, and such shares shall be deemed not to be outstanding for purposes of such votes. We have no current intention to issue any more of our unissued, authorized shares of undesignated preferred stock. However, the issuance of any shares of undesignated preferred stock in the future could adversely affect the rights of the holders of common stock.

WARRANTS

Our warrants were issued at various times since April 13, 2000 to eight different parties as described below.

As of April 13, 2000, we issued to each of Irving Weissman and Mark Levin, each a director, a warrant in connection with a Securities Purchase Agreement dated as of April 13, 2000. Each warrant is to purchase 37,500 shares of our common stock at an exercise price of $6.58125 per share. Each warrant is exercisable, in whole or in part, at any time on or after April 13, 2000 and on or prior to April 13, 2005. The exercise price is subject to adjustment for subdivisions, combinations, stock dividends, reorganizations and various other issuances. We may, at any time during the term of the warrant, reduce the exercise price to any amount for any period of time deemed appropriate by our board of directors. See "Related Party Transactions--Preferred Stock Issued to Dr. Weissman and Mr. Levin."

We issued a warrant to Millennium Partners L.P. on August 3, 2000, which may entitle them to receive additional shares of common stock on eight dates beginning six months from that date and every three months thereafter. On August 30, 2000 we issued a second warrant to Millennium which may entitle them to receive additional shares of common stock on eight dates beginning six months from August 30, 2000 and every three months thereafter. On November 1, 2000, we agreed with Millennium to cancel the adjustable warrant issued on August 30, 2000 and to decrease the number of shares for which the adjustable warrant issued on August 3, 2000 may be exercisable. The number of additional shares Millennium will be entitled to receive on each date will be based on the number of shares of common stock Millennium 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 limit the number of additional shares by purchasing part of the entitlement from Millennium. The remaining warrant is exercisable, in whole or in part, at any time on or prior to 30 days after the last date which may entitle Millennium to receive additional shares. This warrant is subject to adjustment for subdivisions, combinations, stock dividends, reorganizations and various other issuances of common stock. On January 27, 2001, Millennium's August 3, 2000 adjustable warrant became exercisable for

463,369 shares of our common stock, and Millennium purchased all of those shares for $4,634 on March 30, 2001. On April 27, 2001, the adjustable warrant became exercisable for an additional 622,469 shares of our common stock, and Millennium purchased all of those shares for $6,225 on July 19, 2001. On June 21, 2001, Millennium received an additional adjustable warrant similar to the adjustable warrant issued to Millennium on August 3, 2000. It is not currently exercisable for shares of our common stock but may be adjusted in the future to permit purchases of our common stock at $0.01 per share.

Millennium also received a warrant on August 3, 2000 to purchase up to 101,587 shares of common stock at $4.725 per share, which is callable by us at $7.875 per underlying share. On August 30, 2000 we issued an additional warrant

to purchase up to 19,900 shares of common stock at $6.03 per share which is callable by us at $10.05 per underlying share. On June 21, 2001, Millennium received an additional warrant to purchase 50,352 shares of our common stock at a price per share of $4.7664. This warrant is callable by us at any time at $7.944 per underlying share. Each callable warrant is exercisable, in whole or in part, at any time on or after the issuance date and on or prior to the fifth year anniversary of the issuance date. The exercise price and number of shares are subject to adjustment for subdivisions, combinations, stock dividends, reorganizations and various other issuances.

On August 3, 2000 we issued a warrant to the May Davis Group and four of its affiliates to purchase up to 100,000 shares of common stock at $5.0375 per share.

On May 10, 2001, in connection with our execution of a common stock purchase agreement with Sativum Investments Limited, we issued three three-year warrants to purchase an aggregate of 350,000 shares of our common stock at $2.38 per share to Sativum (250,000 shares), Pacific Crest Securities Inc. (75,000 shares) and Granite Financial Group, Inc. (25,000 shares). The shares underlying these warrants are being registered for sale by the registration statement of which this prospectus forms a part. The exercise price and number of shares are subject to adjustment for subdivisions, combinations, stock dividends and reorganizations. Pacific Crest and Granite have exercised their warrants in full.

PROVISIONS OF DELAWARE LAW GOVERNING BUSINESS COMBINATIONS

We are subject to the "business combination" provisions of the Delaware General Corporation Law. In general, such provisions prohibit a publicly held Delaware corporation from engaging in various "business combination" transactions with any "interested stockholder" for a period of three years after the date of the transaction in which the person became an "interested stockholder," unless:

- the transaction is approved by the board of directors prior to the date the "interested stockholder" obtained such status;

- upon consummation of the transaction which resulted in the stockholder becoming an "interested stockholder," the "interested stockholder" owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding those shares owned by (a) persons who are directors and also officers and (b) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

- on or subsequent to such date the "business combination" is approved by the board of directors and authorized at an annual or special meeting of stockholders by the affirmative vote of at least 66 2/3% of the outstanding voting stock which is not owned by the "interested stockholder."

A "business combination" is defined to include mergers, asset sales and other transactions resulting in financial benefit to a stockholder. In general, an "interested stockholder" is a person who, together with affiliates and associates, owns 15% or more of a corporation's voting stock or within

three years did own 15% or more of a corporation's voting stock. The statute could prohibit or delay mergers or other takeover or change in control attempts.

TRANSFER AGENT AND REGISTRAR

The transfer agent and registrar for our common stock is EquiServe L.P.

PLAN OF DISTRIBUTION

We will not receive any of the proceeds from the sale by the selling stockholder of the common stock offered hereby.

The shares of the common stock offered hereby may be sold from time to time by the selling stockholder, or by pledgees, donees, transferees or other successors in interest:

- to or through underwriters or dealers;

- directly to one or more other purchasers;

- through agents on a best-efforts basis; or

- through a combination of any such methods of sale.

Such sales may be made on one or more exchanges or in the over-the-counter market, or otherwise at prices and at terms then prevailing or at prices related to the then current market price, or in privately negotiated transactions. The shares may be sold by one or more of the following:

- a block trade in which the broker or dealer so engaged will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;

- purchases by a broker or dealer as principal and resale by such broker or dealer for its account pursuant to this prospectus;

- an exchange distribution in accordance with the rules of such exchange;

- ordinary brokerage transactions and transactions in which the broker solicits purchasers; and

- privately negotiated transactions without a broker or dealer.

In effecting sales, brokers or dealers engaged by the selling stockholder may arrange for other brokers or dealers to participate. Brokers or dealers will receive commissions or discounts from the selling stockholder in amounts to be negotiated prior to the sale. In addition, any securities covered by this prospectus which qualify for sale pursuant to Rule 144 may be sold under Rule 144 rather than pursuant to this prospectus.

In addition, the selling stockholder may engage in short sales and other transactions in the common stock or derivatives thereof, and may pledge, sell, deliver or otherwise transfer the common stock offered under this prospectus in connection with such transactions.

If we are notified by a selling stockholder that a material arrangement has been entered into with a broker-dealer for the sale of shares through a block trade, special offering, exchange distribution or secondary distribution, or a purchase by a broker-dealer as a principal, a supplemental prospectus will be filed listing:

- the name of each selling stockholder and of the participating broker-dealer(s);

- the number of shares involved;

- the price at which such shares were sold;

- the commissions paid or discounts or concessions allowed to such broker-dealer(s), where applicable; and

- other facts material to the transaction.

We have agreed to pay the cost of registering the shares covered by this prospectus and the costs of preparing this prospectus and the registration statement under which it is filed.

We and the selling stockholder have agreed to indemnify one another against certain liabilities, including liabilities arising under the Securities Act.

LEGAL MATTERS

The validity of the shares of our common stock offered hereby will be passed upon for us by Ropes & Gray, Boston, Massachusetts.

EXPERTS

Ernst & Young LLP, independent auditors, have audited our consolidated financial statements at December 31, 2000 and 1999, and for each of the three years in the period ended December 31, 2000, as set forth in their report. We have included these financial statements in the prospectus and elsewhere in the registration statement in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the common stock to be sold in this offering.

This prospectus does not contain all the information included in the registration statement and the related exhibits and schedules. You will find additional information about us and our common stock in the registration statement. The registration statement and the related exhibits and schedules may be inspected and copied at the public reference facilities maintained by the SEC at Room 1024, Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 20549, and at the public reference facilities of the SEC's Regional Offices: New York Regional Office, Seven World Trade Center, Suite 1300, New York, New York 10048; and Chicago Regional Office, Citicorp Center, 500 West Madison Street, Chicago, Illinois 60661. Copies of this material may also be obtained from the Public Reference Section of the SEC at 450 Fifth Street, N.W., Washington, D.C. 20549 at prescribed rates. You can obtain information on the operation of the public reference facilities by calling 1-800-SEC-0330. The SEC also maintains a site on the World Wide Web (http://www.sec.gov) that contains reports, proxy and information statements and other information regarding registrants, including us, that file electronically with the SEC. Statements made in this prospectus about legal documents may not necessarily be complete and you should read the documents which are filed as exhibits or schedules to the registration statement or otherwise filed with the SEC.

INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference the information we file with it, which means that we can disclose information important to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus, and information that we later file with the SEC will automatically update and supersede this information. Accordingly, we incorporate by reference the following documents we filed with the SEC pursuant to Section 13 of the Securities Exchange Act of 1934:

- our Annual Report on Form 10-K for the year ended December 31, 2000 (filed April 2, 2001, as amended April 30, 2001);

- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2001 (filed May 9, 2001);

- our Proxy Statement for the Annual Meeting of Stockholders held on May 31, 2001 (filed April 30, 2001);

- our Current Reports on Form 8-K dated May 8, 2001 (filed May 8, 2001) and May 14, 2001 (dated May 14, 2001);

- the description of our common stock contained in the registration statement on Form 8-A filed with the SEC pursuant to Section 12 of the Securities Exchange Act of 1934 and all amendments thereto and reports filed for the purpose of updating such description; and

- all documents filed by us with the SEC pursuant to the Securities Exchange Act of 1934 after the date of this prospectus and before the offering of common stock is completed (other than portions of such documents described in paragraphs (i), (k) and (l) of Item 402 of Regulation S-K promulgated by the SEC).

These documents are or will be available for inspection or copying at the locations identified above under the caption "Where You Can Find More Information." We will provide without charge to each person to whom this prospectus is delivered, upon written or oral request, a copy of any and all of the documents that have been incorporated by reference in this prospectus (other than exhibits to those documents). You should direct requests for documents to:

StemCells, Inc.
3155 Porter Drive
Palo Alto, CA 94304
Attention: Investor Relations
Telephone number: (650) 475-3100

STEMCELLS, INC. (FORMERLY CYTOTHERAPEUTICS, INC.)

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

Stockholders and Board of Directors
StemCells, Inc.

We have audited the accompanying consolidated balance sheets of StemCells, Inc. (formerly CytoTherapeutics, Inc.) as of December 31, 2000 and 1999, 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, 2000. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of StemCells, Inc. at December 31, 2000 and 1999, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2000, in conformity with accounting principles generally accepted in the United States.

As discussed in Note 1 to the consolidated financial statements, the Company changed its method of accounting for the beneficial conversion of preferred shares.

/s/ ERNST & YOUNG LLP

Palo Alto, California
February 23, 2001

STEMCELLS, INC.

CONSOLIDATED BALANCE SHEETS

DECEMBER 31, ---------- 2000 1999 ------ ------- ---------- ASSETS Current assets: Cash and cash equivalents..... $ 6,068,947 $ 4,760,064 Short-term restricted investments..... 16,356,334 -- Accrued interest receivable..... 16,725 42,212 Technology sale receivable..... -- 3,000,000 Debt service fund.....

-- 609,905 Other current assets..... 524,509 558,674 ---------- ---------- Total current assets..... 22,966,515 8,970,855 Property held for sale..... 3,203,491 3,203,491 Property, plant and equipment, net..... 1,451,061 1,747,885 Other assets, net..... 2,173,912 1,858,768 ---------- ---------- Total assets..... $ 29,794,979 $ 15,780,999 ========== ========== LIABILITIES AND STOCKHOLDERS' EQUITY Current liabilities: Accounts payable..... $ 526,191 $ 631,315 Accrued expenses..... 837,358 970,546 Accrued wind-down costs..... 1,780,579 1,634,522 Current maturities of capital lease obligations..... 332,083 324,167 ---------- ---------- Total current liabilities..... 3,476,211 3,560,550 Capital lease obligations, less current maturities..... 2,605,000 2,937,083 Deposits..... 26,000 26,000 Deferred rent..... 705,746 502,353 Commitments Redeemable common stock, $.01 par value; 524,337 shares issued and outstanding at December 31, 1999, none at December 31, 2000..... -- 5,248,610 Stockholders' equity: Convertible Preferred Stock, $.01 par value; 1,000,000 shares authorized, 2,626 designated as 6% Cumulative Convertible Preferred Stock 1,500 shares issued and outstanding at December 31, 2000, none at December 31, 1999..... 1,500,000 -- Common stock, $.01 par value; 45,000,000 shares authorized; 20,956,887 and 18,635,565 shares issued and outstanding at December 31, 2000 and 1999, respectively..... 209,569 186,355 Additional paid-in capital..... 138,150,067 123,917,758 Accumulated deficit..... (130,498,187) (119,372,710) Accumulated other comprehensive income..... 16,356,334 -- Deferred compensation..... (2,735,761) (1,225,000) ---------- ---------- Total stockholders' equity..... 22,982,022 3,506,403 ---------- ---------- Total liabilities and stockholders' equity..... $ 29,794,979 $ 15,780,999 ========== ==========

SEE ACCOMPANYING NOTES TO CONSOLIDATED FINANCIAL STATEMENTS.

STEMCELLS, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

YEAR ENDED DECEMBER 31, ---------- ---------- 2000 1999 1998 ---------- ---------- Revenue from collaborative and licensing agreements..... $ 74,300 $ 5,021,707 $ 8,803,163 Operating expenses: Research and development..... 5,979,007 9,984,027 17,658,530 General and administrative..... 3,361,231 4,927,303 4,602,758 Encapsulated Cell Therapy wind-down and corporate relocation..... 3,327,360 6,047,806 -- ---------- ---------- ---------- 12,667,598 20,959,136 22,261,288 ---------- ---------- ---------- Loss from operations..... (12,593,298) (15,937,429) (13,458,125) Other income (expense): Interest

income..... 303,746
564,006 1,253,781 Interest
expense.....
(272,513) (335,203) (472,400) Gain on sale of
Investment..... 1,427,686 -- -
- Other
income.....
8,902 -- 48,914 ----------- ----------- -------
----- 1,467,821 228,803 830,295 ----------- ----
-------- ----------- Net
loss.....
$(11,125,477) $(15,708,626) $(12,627,830) Deemed
dividend to preferred shareholders.....
(265,000) -- -- ----------- ----------- -------
----- Net loss applicable to common shareholders
before a cumulative effect of a change in
accounting
principle.....
$(11,390,477) $(15,708,626) $(12,627,830)
Cumulative effect of a change in accounting
principle due to deemed
dividend..... $ (216,000) $ -- $ --
----------- ----------- ----------- Net loss
applicable to common shareholders.....
$(11,606,477) $(15,708,626) $(12,627,830)
=========== ========== ========== Basic and
diluted net loss per share applicable to common
shareholders before cumulative effect..... $
(.57) $ (.84) $ (.69) Cumulative effect of a
change in accounting
principle.....
$ (.01) -- -- ----------- ----------- ---------
--- Basic and diluted net loss per share
applicable to common
shareholders..... $
(.58) $ (.84) $ (.69) Shares used in computing
basic and diluted net loss per
share.....
20,067,760 18,705,838 18,290,548 ===========
========== ==========

SEE ACCOMPANYING NOTES TO CONSOLIDATED FINANCIAL STATEMENTS.

STEMCELLS, INC.
CONSOLIDATED STATEMENTS OF CHANGES IN REDEEMABLE COMMON STOCK AND STOCKHOLDERS' EQUITY

REDEEMABLE ACCUMULATED COMMON
STOCK COMMON STOCK ADDITIONAL
OTHER ---------- --
---------- PAID-IN
ACCUMULATED COMPREHENSIVE
SHARES AMOUNT SHARES AMOUNT
CAPITAL DEFICIT INCOME (LOSS)
-------- ---------- ----------
-------- ----------- --------
----- ---------- Balances,
December 31, 1997.....
557,754 $5,583,110 17,526,220
$175,262 $121,472,844 $
(91,036,254) $(8,877) Issuance
of common stock under the
stock purchase
plan..... -- --
43,542 436 83,622 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) TOTAL DEFERRED STOCKHOLDERS' COMPENSATION EQUITY ---------- --- ---------- Balances, December 31, 1997..... $(1,702,820) $ 28,900,155 Issuance of common stock under the stock purchase plan..... 84,058 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.

CONSOLIDATED STATEMENTS OF CHANGES IN REDEEMABLE COMMON STOCK AND STOCKHOLDERS' EQUITY (CONTINUED)

REDEEMABLE COMMON STOCK		COMMON STOCK		ADDITIONAL PAID-IN CAPITAL	ACCUMULATED DEFICIT	OTHER COMPREHENSIVE INCOME (LOSS)	
SHARES	AMOUNT	SHARES	AMOUNT				
Balances, December 31, 1998.....							
524,337	$5,248,610	17,800,323	$178,003	$122,861,606	$(103,664,084)	$(5,198)	
Issuance of common stock.....		--	--	196,213	$ 1,962	$ 318,221	-- --
Issuance of common stock under the stock purchase plan.....		--	--	57,398	574	41,619	
Common stock issued pursuant to employee benefit plan.....		--	--	90,798	908	102,502	-- --
Exercise of stock options.....		--	--				

490,833 4,908 513,534 -- --
Deferred compensation--
amortization and
cancellations.....
-- -- -- -- 80,276 -- --
Change in unrealized losses on
marketable
securities..... -- -- -
- -- -- -- 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) --
TOTAL DEFERRED STOCKHOLDERS'
COMPENSATION EQUITY ----------
--- ------------ Balances,
December 31, 1998.....
$(1,472,919) $ 17,897,408
Issuance of common
stock..... -- $ 320,183
Issuance of common stock under
the stock purchase
plan..... 42,193
Common stock issued pursuant
to employee benefit
plan..... -- 103,410
Exercise of stock
options..... -- 518,442
Deferred compensation--
amortization and
cancellations.....
247,919 328,195 Change in
unrealized losses on
marketable
securities..... --
5,198 Net
loss.....
-- (15,708,626) Comprehensive
loss.....
(15,703,428) ----------- -----
------- Balances, December 31,
1999..... (1,225,000)
3,506,403

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

REDEEMABLE COMMON STOCK
PREFERRED STOCK COMMON
STOCK ADDITIONAL ----------
------------ --------------
------- -------------------
-- PAID-IN SHARES AMOUNT
SHARES AMOUNT SHARES AMOUNT
CAPITAL -------- ----------
- -------- ---------- -----
----- -------- ------------
Balances, December 31,
1999... 524,337 $ 5,248,610
-- -- 18,635,565 $186,355
$123,917,758 Issuance of
common stock to Millennium
Partners LP, net of
issuance costs of
$598,563.....
-- -- -- -- 1,104,435 $
11,044 $ 4,390,393 Issuance
of common stock related to
license
agreements.....
-- -- -- -- 77,800 $ 778 $
364,222 Common stock issued

pursuant to employee benefit plan.... -- -- -- -- 6,672 $ 68 $ 27,112 Exercise of employee stock options..... -- -- -- -- 608,078 $ 6,081 $ 651,828 Redeemable common stock conversion..... (524,337) $(5,248,610) -- -- 524,337 $ 5,243 $ 5,243,367 Issuance of preferred stock... -- -- 1,500 $1,500,000 -- -- -- Deferred compensation--amortization and cancellations..... -- -- -- -- -- -- $ 3,555,387 Unrealized gain on short-term restricted investments..... -- -- -- -- -- -- -- -- Net loss..... -- -- -- -- -- -- -- Comprehensive Income..... -------- ---------- ----- ---------- -------- -------- ---------- ---- Balances, December 31, 2000... -- -- 1,500 $1,500,000 20,956,887 $209,569 $138,150,067 ======== ========== ===== ========== ========== ======== ========== ACCUMULATED OTHER TOTAL ACCUMULATED COMPREHENSIVE DEFERRED STOCKHOLDERS' DEFICIT INCOME (LOSS) COMPENSATION EQUITY ------- ------ -------------- ----- -------- ------------- Balances, December 31, 1999... $(119,372,710) $ -- $(1,225,000) $ 3,506,403 Issuance of common stock to Millennium Partners LP, net of issuance costs of $598,563..... -- -- -- $ 4,401,437 Issuance of common stock related to license agreements..... -- -- -- $ 365,000 Common stock issued pursuant to employee benefit plan.... -- -- -- $ 27,180 Exercise of employee stock options..... -- -- -- $ 657,909 Redeemable common stock conversion..... -- -- -- $ 5,248,610 Issuance of preferred stock... -- -- -- $ 1,500,000 Deferred compensation--amortization and cancellations..... -- -- $(1,510,760) $ 2,044,627 Unrealized gain on short-term restricted investments..... -- $16,356,334 -- $ 16,356,334 Net loss..... $ (11,125,477) -- -- $(11,125,477) ---------- Comprehensive Income..... $ 5,230,858 ---------- ---------- -

Balances, December 31, 2000...	$(130,498,187)	$16,356,334	$(2,735,761)	$ 22,982,022	

SEE ACCOMPANYING NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

STEMCELLS, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

YEAR ENDED DECEMBER 31,	2000	1999	1998
CASH FLOWS FROM OPERATING ACTIVITIES: Net loss.....	$(11,125,477)	$(15,708,626)	$(12,627,830)
Adjustments to reconcile net loss to net cash used in operating activities: Depreciation and amortization.....	738,593	1,717,975	2,244,146
Acquired research and development.....	--	--	551,009
Amortization of deferred compensation.....	2,044,627	328,195	--
Fair market adjustment for property held for sale.....	300,000		
Other non-cash charges.....	320,183	410,173	
Gain on investment.....	(1,427,686)	--	--
Loss on sale of property, plant and equipment.....	--	1,117,286	--
Loss on sale of intangibles.....	--	440,486	--
Changes in operating assets and liabilities: Accrued interest receivable.....	25,488	164,397	346,577
Technology receivable.....	3,000,000	--	--
Other current assets.....	315,213	283,000	(265,665)
Accounts payable and accrued expenses.....	(92,255)	1,344,142	(2,378,613)
Deferred rent.....	203,393	279,680	--
Deferred revenue.....	--	(2,500,000)	2,483,856
Net cash used in operating activities.....	(6,318,104)	(11,913,282)	(9,236,347)
CASH FLOWS FROM INVESTING ACTIVITIES: Proceeds from sale of Investments.....	1,427,686	--	--
Purchases of marketable securities.....	(4,397,676)	(18,982,387)	
Proceeds from sales of marketable securities.....	13,923,813	22,573,625	
Purchases of property, plant and equipment.....	(151,212)	(192,747)	(2,153,525)
Proceeds on sale of fixed assets.....	--	746,448	--
Acquisition of other assets.....	(886,751)	(558,311)	(400,219)
Disposal of other assets.....	--	440,486	--
Net cash provided by investing activities.....	389,723	9,962,013	1,037,494
CASH FLOWS FROM FINANCING ACTIVITIES: Proceeds from issuance of common stock.....	4,401,437	145,603	227,931
Proceeds from the exercise of stock options.....	685,089	518,442	1,364
Common stock issued for agreements.....	365,000	--	--
Proceeds from issuance of preferred stock.....	1,500,000	--	--
Proceeds from debt financings.....	--	--	1,259,300
Change in debt service fund.....	609,905	--	--
Repayments of debt and lease			

obligations..... (324,167) (1,817,500) (1,366,655) ----------- ----------- ----------- Net cash provided by (used in) financing activities..... 7,237,264 (1,153,455) 121,940 ----- ------- ----------- ----------- Increase (decrease) in cash and cash equivalents..... 1,308,883 (3,104,724) (8,076,913) Cash and cash equivalents at beginning of year..... 4,760,064 7,864,788 15,941,701 ----------- ----------- ----------- Cash and cash equivalents at end of the year..... $ 6,068,947 $ 4,760,064 $ 7,864,788 ========== ========== ========== Supplemental disclosure of cash flow information: Interest paid..... $ 272,513 $ 335,203 $ 444,047

SEE ACCOMPANYING NOTES TO CONSOLIDATED FINANCIAL STATEMENTS.

STEMCELLS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

DECEMBER 31, 2000

1. NATURE OF BUSINESS

StemCells, Inc. (the "Company") is a biopharmaceutical company that operates in one segment, engaged in the development of novel stem cell therapies designed to treat human diseases and disorders. On May 23, 2000, the Company's name was changed to Stem Cells, Inc. from CytoTherapeutics, Inc. by vote of the shareholders at the Annual Meeting.

As of December 31, 2000, the Company had cash and cash equivalents of approximately $6.1 million and a restricted short-term equity investment of approximately $16.4 million in Modex Therapeutics, a Swiss Biotherapeutics company. Since inception, the Company has incurred annual losses and negative cash flows from operations and has an accumulated deficit of approximately $130.5 million at December 31, 2000. The Company has not derived any revenues from the sale of any products, and does not expect to receive revenues from product sales for at least several years. As a result, the Company is dependent upon external financing from equity and debt offerings and revenues from collaborative research arrangements with corporate sponsors to finance its 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 the Company.

As noted above, the Company has a restricted investment in Modex Therapeutics, a Swiss Biotherapeutics company with a fair market value of approximately $16.4 million at December 31, 2000. On January 9, 2001, the Company sold 22,616 shares of Modex common stock for total proceeds of approximately $2.5 million. The Company is restricted from selling any of the remaining 103,577 shares until April 12, 2001. The value of the Company's holdings is subject to market risk and foreign currency fluctuation and could decrease significantly. The Company is currently in discussions with Modex to sell the remaining shares during 2001. If the Company decided to sell the Modex shares, due to relatively small trading volume in Modex shares and the relatively large size of the Company holdings, or other factors, the Company may not be able to sell its Modex shares at their market value or at all, and the Company may have to sell these shares at a significant discount to the market price.

If the Company is unable to obtain the necessary proceeds from the sale of Modex shares, significant reductions in spending and the delay or cancellation of planned activities may be necessary. In such event, the Company intends to implement expense reduction plans in a timely manner to enable the Company to meet its operating cash requirements through December 31, 2001.

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

accounting principles generally accepted in the United States, that requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

CASH EQUIVALENTS AND INVESTMENTS

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 preservation while obtaining a reasonable rate of return.

The Company determines the appropriate classification of securities at the time of purchase and reevaluates such designation as of each balance sheet date. The Company classifies such holdings as available-for-sale securities, which are carried at fair value, with unrealized gains and losses reported as a separate component of stockholders' equity.

COMPREHENSIVE INCOME (LOSS)

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

PROPERTY, PLANT AND EQUIPMENT

As a result of the Company's decision to exit the encapsulated cell technology and relocate its corporate headquarters to Sunnyvale, California, 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, including that held under capital lease obligations, is stated at cost and depreciated using the straight-line method over the estimated life of the respective asset, or the lease term if shorter, as follows:

Building and improvements	3 - 15 years
Machinery and equipment	3 - 10 years
Furniture and fixtures	3 - 10 years

PATENT AND LICENSE 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 charged to expense at the time such patents are deemed to have no continuing value. At December 31, 2000 and 1999, total costs capitalized were $638,000 and $718,000 and the related accumulated amortization were $9,000 and $9,000, respectively. Patent expense totaled $305,000, $539,000, and $3,000 in 2000, 1999 and 1998, respectively.

In December 1999 the Company sold its Encapsulated Cell Technology ("ECT") to Neurotech, S.A. for an initial payment of $3,000,000, which was paid in 2000, royalties on future product sales, and a portion of certain Neurotech revenues from third parties in return for the assignment to Neurotech

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)
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. In year 2000 the Company received $74,300 representing a portion of revenues received by Neurotech from third parties.

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, and is remeasured during the vesting period. Fair value is determined using methodologies allowable by FAS No. 123. The cost is amortized over the vesting period of each option or the recipient's contractual arrangement, if shorter.

LONG LIVED ASSETS

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

INCOME TAXES

The liability method is used to account for income taxes. Deferred tax assets and liabilities are determined based on differences between financial reporting and income tax bases of assets and liabilities as well as net operating loss carry forwards and are measured using the enacted tax rates and laws that are expected to be in effect when the differences reverse. Deferred tax assets may be reduced by a valuation allowance to reflect the uncertainty associated with their ultimate realization.

REVENUE RECOGNITION

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

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)
RECENT ACCOUNTING PRONOUNCEMENTS

In June 1998, the Financial Accounting Standards Board issued SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities" (SFAS 133), which establishes accounting and reporting standards for derivative instruments, including certain derivative instruments embedded in other contracts, and for hedging activities. In June 1999, the FASB issued SFAS No. 137, "Accounting for Derivative Instruments and Hedging Activities--Deferral of the Effective Date of FASB Statement No. 133." The Company is required to adopt SFAS 133 effective January 1, 2001. Because the Company does we does not hold any derivative instruments and does not engage in hedging activities, management does not believe the adoption of SFAS 133 will have an impact on our financial position

or results of operations.

In November 2000, the FASB issued Emerging Issues Task Force Issue No. 00-27, "Application of EITF Issue No. 98-5, Accounting for Convertible Securities with Beneficial Conversion Features or Contingently Adjustable Conversion Ratios, to Certain Convertible Instruments" ("EITF 00-27") which is effective retroactively to September 1999 for all such instruments. EITF 00-27 clarifies the accounting for instruments with beneficial conversion features or contingently adjustable conversion ratios. According to the new accounting principle, the beneficial conversion features should be calculated by first allocating the proceeds received from the financing among the convertible instrument and the detachable warrants and then, measuring the beneficial conversion feature between the stated conversion price of the convertible instrument and the effective conversion price based on the allocated proceeds. Previously, the beneficial conversion feature calculation was based on the difference between the stated conversion price of the convertible instrument and the fair value of the Company's stock price on the closing date of the financing. As a result of the new accounting principle, the Company modified the calculation of the beneficial conversion features associated with its 6% cumulative convertible preferred stock.

The Company has presented the effect of adopting the new accounting principle as a cumulative effect of a change in accounting principle as allowed for in EITF 00-27. Accordingly, the Company has recognized an additional $216,000 of deemed dividend on preferred stock.

RESEARCH AND DEVELOPMENT COSTS

The Company expenses all research and development costs as incurred.

NET LOSS PER SHARE

Basic and diluted net loss per share has been computed using the weighted-average number of shares of common stock outstanding during the period, less shares subject to repurchase. The Company has excluded outstanding stock options and warrants, and shares subject to repurchase from the calculation of diluted loss per common share because all such securities are anti-dilutive for all applicable periods presented.

3. 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

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

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 administrating therapy and documenting activities, and to assist in compliance with FDA and other regulations regarding its clinical trials. ECT related patent law work was also terminated. The Company also engaged professional consultants in connection with the determination to exit its ECT activities and restructure its operations, which concluded with the exit from ECT activities and relocation

of its corporate headquarters to California. The Company reduced its workforce by approximately 58 employees who had been focused on ECT programs and 10 administrative employees. As a result, the Company sold excess furniture and equipment in December 1999 and is seeking to sublease the science and administrative facility and to sell the pilot manufacturing facility.

Wind-down expenses totaled $3,327,360 and $6,047,806, for the year ended December 31, 2000 and 1999, respectively. No such expenses were incurred in 1998. These expenses relate to the wind-down of our encapsulated cell technology research and other Rhode Island operations and the transfer of the corporate headquarters to Sunnyvale, California. Expenses for the year 2000, includes an accrual for the estimated lease and facility costs related to the facilities in Rhode Island through 2001. Expenses for the year 1999 also includes an accrual for the estimate of the costs of settlement of a 1989 funding agreement with the Rhode Island Partnership for Science and Technology ("RIPSAT").

At December 31, 1999, the Company's $1.6 million wind-down reserve included approximately $1.2 million for the RIPSAT settlement and approximately $0.4 million for Rhode Island facility for the estimated lease payments and operating costs of the Rhode Island facilities through an expected disposal date of June 30, 2000. In 2000 the Company settled with RIPSAT, paid $1.2 million and paid 0.4 million related to Rhode Island facilities. The Company did not sublet the Rhode Island facilities in 2000 and therefore made a change in estimate to accrue additional expenses of $3.3 million to cover operating lease payments, utilities, taxes, insurance, maintenance, interest and other non-employee expenses through 2001. At December 31, 2000 the remaining wind-down reserve totaled $1.7 million.

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

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

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

- ------------------------

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

(2) Facilities carrying costs include operating lease payments, utilities, property taxes, insurance, maintenance, interest and other non-employee

related expenses necessary to maintaining these facilities through the expected date of disposition (December 31, 2001)

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

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

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

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

Property held for sale at December 31, 2000 and 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 in 1999. The balance reflected the $300,000 write-down included as part of the additional wind-down expenses recognized 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.

4. STEMCELLS CALIFORNIA, INC.

In September 1997, a merger of a wholly owned subsidiary of the company and StemCells California, Inc. was completed. As part of the acquisition of StemCells, Richard M. Rose, M.D., became President, Chief Executive Officer and director of the Company and Dr. Irving Weissman became a director of the Company. Upon consummation of the merger, the Company entered into consulting arrangements with the principal scientific founders of StemCells: Dr. Irving Weissman, Dr. Fred H. Gage and Dr. David Anderson. Additionally, in connection with the merger, the Company was granted an option by the former shareholders of StemCells to repurchase 500,000 of the Company's shares of Common Stock exchanged for StemCells shares, upon the occurrence of certain events. To attract and retain Drs. Rose, Weissman, Gage and Anderson, and to expedite the progress of the Company's stem cell program, the Company awarded these individuals options to acquire a total of approximately 1.6 million shares of the Company's common stock, at an exercise price of $5.25 per share, the quoted market price at the grant date. The Company also designated a pool of 400,000 options to be granted to persons in a position to make a significant contribution to the success of the stem cell program. Under the original grants, approximately 100,000 of these options were exercisable immediately on the date of grant, 1,031,000 of these options would vest and become exercisable only upon the achievement of specified milestones related to the Company's stem cell development program and the remaining 468,750 options would vest over eight years. In connection with the 468,750 options issued to a non-employee, Dr. Anderson, the Company recorded deferred compensation of $1,750,000, the fair value of such options at the date of grant, which will be amortized over an eight-year period. The fair value was determined using the Black-Scholes method.

Effective October 31, 2000, the Company agreed with Drs. Weissman and Gage to revise their 468,750 milestone-vesting stock options to time-based vesting, on the same schedule as Dr. Anderson's option. Under each of the revised options, 168,750 shares vested immediately, and the remaining 300,000 shares will vest at 50,000 per year on September 25, until September 25, 2005, when the final 100,000 shares will vest. The exercise price remains $5.25 per share. The Company recorded $1,647,000 as compensation expense for the fair market value of the vested portion of such options in an amount determined using the Black-Scholes method. The deferred compensation expense associated with the unvested portion of the grants was determined to be approximately $1,338,000. As part of the revision of the options, Drs. Weissman and Gage relinquished all rights under an agreement. These individuals had the right to license the non-brain stem cell technology in exchange for a payment to the Company equal to

all prior funding for such research plus royalty payments. We plan to revalue the options using the Black-Scholes method on a quarterly basis and recognize additional compensation expense accordingly.

5. INVESTMENTS

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

In April 1998, Modex completed an additional equity offering, in which the Company did not participate. This resulted in a reduction in the Company's ownership to less than 20% ownership; therefore, the Company accounted for this investment under the cost method from that date.

At December 31, 2000 the Company owned 126,193 shares of Modex. Modex completed an initial public offering of shares on the Swiss Exchange on June 23, 2000. Accordingly, with an established market value, the investment is recorded as available-for-sale at a fair market value of $16,356,334 as at December 31, 2000. The unrealized gain was reported as other comprehensive income in the statement of stockholders' equity.

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.

6. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment consists of the following:

DECEMBER 31,	
2000	1999
Building and improvements	
$ 703,095	$ 665,890
Machinery and equipment	
1,766,448	1,691,136
Furniture and fixtures	
188,736	219,260
2,658,279	2,576,286
Less accumulated depreciation and amortization	
(1,207,218)	(828,401)
$1,451,061	$1,747,885

Depreciation expense was $451,000, $1,436,000, and $1,720,000 for the years ending December 31, 2000, 1999 and 1998, respectively.

As part of restructuring our operations, sale of our encapsulated cell technology ("ECT"), and relocation of our corporate headquarters to Sunnyvale, California, we identified fixed assets associated with the ECT or otherwise no longer needed. In December of 1999, we disposed of these excess fixed assets, realizing proceeds of approximately $746,000. These assets had a net book value of approximately $1,063,000 after a write-down of 800,000, which was based on an estimate of expected sale proceeds.

Certain property, plant and equipment have been acquired under capital lease obligations. These assets totaled $5,827,000 at December 31, 2000 and 1999, respectively, with related accumulated amortization of $2,747,000 at December 31, 2000 and 1999, respectively. As a result of the Company's

6. PROPERTY, PLANT AND EQUIPMENT (CONTINUED)
decision to exit ECT and relocate to Sunnyvale, California, this property has been classified as held for sale.

7. OTHER ASSETS

Other assets are as follows:

DECEMBER 31,	2000	1999
Patents, net	$ 629,203	$ 708,823
License agreements, net	669,000	282,750
Security deposit--building lease	750,000	750,000
Deposit--other	16,321	--
Deferred financing costs, net	109,388	117,195
	$2,173,912	$1,858,768

At December 31, 2000 and 1999, accumulated amortization was $1,140,000 and $857,000, respectively, for patents and license agreements.

8. ACCRUED EXPENSES

Accrued expenses are as follows:

DECEMBER 31,	2000	1999
External services	$219,051	$ 97,439
Employee compensation	109,007	306,342
Collaborative research	--	222,140
Other	509,300	344,625
	$837,358	$970,546

9. 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

9. LEASES (CONTINUED)
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 serve reserve ("Reserve Funds") of approximately $610,000 of principal and interest, relating to the bonds the Company has with IRBA and RIIFC. 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.

The Company entered into a fifteen-year lease for a laboratory facility in connection with a sale and leaseback arrangement in 1997. The lease has a rent escalation clause and accordingly, the Company is recognizing rent expense on a straight line basis. At December 31, 2000, the Company has $705,746 in deferred rent expense.

As of February 1, 2001, the Company entered into a 5-year lease for a 40,000 square foot facility located in the Stanford Research Park in Palo Alto, CA. The new facility includes vivarium space, laboratories, offices, and a GMP (Good Manufacturing Practices) suite. GMP facilities can be used to manufacture materials for clinical trials. The rent will average approximately $3.15 million per year over the term of the lease.

As of December 31, 2000, future minimum lease payments under operating and capital leases and principal payments on equipment loans are as follows:

	CAPITAL LEASES	OPERATING LEASES	SUBLEASE INCOME
2001	$ 589,217	$ 3,584,061	$ 295,854
2002	519,719	2,392,988	400,658
2003	436,909	4,568,274	395,676
2004	425,713	4,677,197	416,507
2005	412,587	4,789,388	437,338
Thereafter	2,311,577	8,797,417	130,761
Total minimum lease payments	4,695,722	$28,809,325	$2,076,794
Less amounts representing interest	1,758,639		
Present value of minimum lease payments	2,937,083		
Less current maturities	332,083		
Capitalized lease obligations, less current maturities	$2,605,000		

Rent expense for the years ended December 31, 2000, 1999 and 1998, was $1,111,000, $947,000 and $1,052,000, respectively.

10. STOCKHOLDERS' EQUITY

SALE OF COMMON STOCK

On August 3, 2000, the Company completed a $4 million common stock financing transaction with Millennium Partners, LP (the "Fund"). StemCells received $3 million of the purchase price at the

10. STOCKHOLDERS' EQUITY (CONTINUED)
closing and received the remaining $1 million upon effectiveness of a registration statement covering the shares owned by the Fund. The Fund purchased the Company's common stock and warrants at $4.33 per share. As set forth in an adjustable warrant issued to the Fund on the closing date, the Fund may be entitled to receive additional shares of common stock on eight dates beginning six months from the closing and every three months thereafter. The adjustable warrant may be exercised at any time prior to the thirtieth day after the last of such dates. 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 the Company's common stock over a period prior to each date. The exercise price per share under the adjustable warrant is $0.01. Such warrants provide the Fund with the opportunity to acquire additional common shares at a nominal value if the value of the common stock that the Fund holds decreases. The Company will have the right, under certain circumstances, to cap the number of additional shares by purchasing part of the entitlement from the Fund at a purchase price based on the market price of such shares. No portion of the sale proceeds was assigned to the adjustable warrants, as the ultimate number of shares issuable upon exercise of the warrants was not determinable and the net impact on the Company's equity from any such allocation of proceeds would have been zero. The Fund also

received a five-year warrant to purchase up to 101,587 shares of common stock at $4.725 per share. This warrant is callable at any time by StemCells at $7.875 per underlying share. The calculated value of this callable warrant using the Black-Scholes method is $376,888, which was treated as a credit to paid in capital in stockholders' equity. The Company accounts for the sale of the stock and warrants or the exercise of warrants by adding that portion of the proceeds equal to the par value of the new shares to common stock and the balance, including the value of the warrants, to paid in capital. In addition, any repurchase of the shares or warrants by the Company would also be accounted for through paid in capital.

In the Purchase Agreement governing the August 3, 2000 sale to the Fund, the Company granted the Fund an option to purchase up to an additional $3 million of its common stock and a callable warrant and an adjustable warrant. The Fund can exercise this option in whole or in part at any time prior to August 3, 2001. The price per share of common stock to be issued upon exercise of the option will be based on the average market price of the common stock for a five-day period prior to the date on which the option is exercised. On August 23, 2000, the Fund exercised $1,000,000 of its option to purchase additional common stock. The Fund paid $750,000 of the purchase price in connection with the closing on August 30, 2000, and the Fund paid the remaining $250,000 upon effectiveness of a registration statement covering the shares owned by the Fund. The Fund purchased the Company's common stock at $5.53 per share, which amount was based upon the average market price of the common stock for the five-day period prior to August 23, 2000. An adjustable warrant similar to the one issued on August 3, 2000 was issued to the Fund on August 30, 2000, but was cancelled on November 1, 2000 by agreement of the Company and the Fund. The Fund also received a five -year warrant to purchase up to 19,900 shares of common stock at $6.03 per share. This warrant is callable by the Company at any time at $10.05 per underlying share. The calculated value of this callable warrant using the Black-Scholes method is $139,897, which the Company accounted for as a credit to paid in capital.

The adjustable warrant contains provisions regarding the adjustment or replacement of the warrants in the event of stock splits, mergers, tender offers and other similar events. The adjustable

10. STOCKHOLDERS' EQUITY (CONTINUED)

warrant also limits the number of shares that can be beneficially owned by the Fund to 9.99% of the total number of outstanding shares of Common Stock.

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 studies 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 reclassified 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.

STOCK ISSUED FOR TECHNOLOGY LICENSES

Under a 1997 License Agreement with NeuroSpheres, Ltd., the Company obtained an exclusive patent license in the field of transplantation. The Company entered

into an additional license agreement with NeuroSpheres as of October 31, 2000, under which the Company obtained an exclusive license in the field of non-transplant uses, such as drug discovery and drug testing, so that together the licenses are exclusive for all uses of the technology. The Company made up-front payments to NeuroSpheres of 65,000 shares of its common stock and $50,000, and will make additional cash payments when milestones are achieved in the non-transplant field, or in any products employing NeuroSpheres patents for generating cells of the blood and immune system from neural stem cells.

The Company also entered into license agreements with the California Institute of Technology and issued 12,800 shares of common stock upon execution of the license agreements. The Company must pay an additional $10,000 upon the issuance of the patent licensed under the relevant agreement

COMMON STOCK 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.

10. STOCKHOLDERS' EQUITY (CONTINUED)

SALE OF 6% CUMULATIVE CONVERTIBLE PREFERRED STOCK

On April 13, 2000 the Company issued 1,500 shares of 6% cumulative convertible preferred stock plus a warrant for 75,000 shares of our common stock to two members of its Board of Directors for $1.500,000 on terms more favorable to the Company than it was then able to obtain from outside investors. The shares are 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 reflecting the April 13, 2000 commitment date and the most beneficial per share discount available to the preferred shareholders. Such value was $481,000 and is treated as a deemed dividend as of the commitment date. The holders of the preferred stock have liquidation rights equal to their original investment plus accrued but unpaid dividends.

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, 2000, the Company had reserved 3,828,371 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:

2000	1999	1998				
			------	WEIGHTED	WEIGHTED	
				WEIGHTED AVERAGE	AVERAGE	
AVERAGE	OPTIONS	EXERCISE PRICE				
OPTIONS	EXERCISE PRICE	OPTIONS				
EXERCISE PRICE	---------	-----				
---------	---------	----------				
----	----------	----------				
	Outstanding at January					
	1.....	939,335	$2.65			
1,654,126	$3.62	2,446,573				
		$7.48				
Granted.....						
2,485,090	4.08	536,078	1.08			

1,174,118 1.70
Exercised.....
(540,927) 1.015 (604,362) 1.50
(11,012) .12
Canceled.....
(166,532) 4.77 (646,507) 5.31
(1,955,553) 7.08 --- --- --- ----- -----
----- Outstanding at December
31..... 2,716,966 4.32 939,335
$2.65 1,654,126 $3.62
========= ====== =========
===== ========== ===== Options
exercisable at December
31..... 731,523
$4.01 594,216 $3.44 1,108,936
$4.33 ========= ======
========= ===== ==========
=====

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; 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. Additionally, the Company adopted the 1997 StemCells, Inc. StemCells California Research Stock Option Plan (the StemCells California Research Plan) whereby an additional 2,000,000 shares of Common Stock have

10. STOCKHOLDERS' EQUITY (CONTINUED)

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; approximately 100,000 of these options were exercisable immediately, 1,031,000 of these options vest and become exercisable only upon achievement of specified milestones and the remaining 469,000 options vest over eight years. For the year 2000 the options have been incorporated into the number of options granted so as to be reflected in the total of options outstanding as of December 31, 2000

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, 2000:

OPTIONS OUTSTANDING OPTIONS
EXERCISABLE ----------
---------- ----------
----- WEIGHTED AVERAGE WEIGHTED
WEIGHTED REMAINING AVERAGE
AVERAGE RANGE OF NUMBER
CONTRACTUAL EXERCISE NUMBER
EXERCISE EXERCISE PRICES
OUTSTANDING LIFE (YRS.) PRICE
EXERCISABLE PRICE - ----------
-- ---------- ---------- ------
-- ---------- -------- Less than
$5.00.....
944,216 8.68 $ 2.063 370,023 $
1.53 $5.01 -
$10.00.....
1,691,750 6.87 5.26 280,500 5.27
Greater than
$10.00.....
81,000 1.30 11.03 81,000 11.03 --

-------	-------	2,716,966	731,523
	=========	=======	

Pursuant to the requirements of FAS 123, the following are the pro forma net loss and net loss per share amounts for 2000, 1999, and 1998, 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 2000, 1999, and 1998, consistent with the provisions of FAS 123:

2000	1999	1998 -
----------	-----	----------
----------	----------	------
---------	----------	
-- AS REPORTED		
PRO FORMA AS		
REPORTED PRO		
FORMA AS		
REPORTED PRO		
FORMA ----------		
-- ----------		
---------- ---		
--------- ------		
------ ---------		
--- Net		
loss.....		
$(11,125,477)		
$(12,160,752)		
$(15,708,626)		
$(15,764,569)		
$(12,627,830)		
$(14,919,389)		
Net loss per		
share... $ (.58)		
$ (.62) $ (.84)		
$ (.84) $ (.69)		
$ (.82)		

The weighted average fair value per share of options granted during 2000, 1999 and 1998 was $4.13, $.82 and $3.40, respectively. The fair value of options and shares issued pursuant to the stock

10. STOCKHOLDERS' EQUITY (CONTINUED)

purchase plan at the date of grant were estimated using the Black-Scholes model with the following weighted average assumptions:

OPTIONS			STOCK PURCHASE PLAN		
----------			----------		
----------			2000	1999	
1998	2000	1999	1998	--------	-------
- --------	--------	--------	-------		
- Expected life					
(years).....			5	5	5
N/A .5					
.5 Interest					
rate.....			6.5%		
5.5%	5.2%	N/A	5.0%	4.6%	
Volatility.....					
167.8	96.7%	63.5%	N/A	96.7%	63.5%

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

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

STOCK WARRANTS

The Company issued warrants to purchase 8,952 shares of common stock in conjunction with the StemCells California merger, warrants to purchase 31,545 shares in conjunction with various equipment leasing agreements, and warrants to purchase 434,500 shares in connection with a public offering of common stock in April 1995. All of these expired at various dates in 2000.

COMMON STOCK RESERVED

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

Shares reserved for exercise of stock options	3,828,371
Shares reserved for warrants	2,292,625
StemCell option conversions	250,344
Total	6,371,340

11. 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 $307,000 in 1998, $309,000 in 1999, and $225,739 in 2000. In addition, the Company agreed to issue to Scripps 4,837 shares of the Company's common stock and a stock option to purchase 9,674 shares of the Company's Common Stock with an exercise price of $.01 per share

11. RESEARCH AGREEMENTS (CONTINUED)
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 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. 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 continue the trials of 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 new focus on the stem cell field, its principal academic collaborations are now with Scripps Institute and the Oregon Health Science University. Research and development expenses incurred under these collaborations amounted to approximately $314,000, $868,000, and $1,259,000 for the years ended December 31, 2000, 1999 and 1998, respectively. The Company has no other significant collaborative research funding obligations.

12. 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, 2000, the Company had tax net operating loss carry forwards of $110,000,000 and research and development tax credit carry forwards of $4,100,000, which expire in the years 2004 through 2020. Utilization of the Company's net operating loss may be subject to substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code and similar state provisions. Such an annual limitation could result in the expiration of the net operating loss before utilization.

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

DECEMBER 31,	2000
1999	
Deferred tax assets:	
Capitalized research and development costs	$ 6,000,000
$ 4,331,000	
Net operating losses	44,000,000
38,478,000	
Research and development credits	4,260,000
4,035,000	
Other	1,020,000
928,000	
	55,280,000
47,772,000	
Deferred tax liabilities:	
Unrealized gain on investment	(6,543,000)
--	
Patents	(127,000)
(246,000)	
Valuation allowance	(48,610,000)
(47,526,000)	

Net deferred tax assets	$ --
$ --	

Realization of deferred tax assets is dependent upon future earnings, if any, the timing and amount of which are uncertain. Accordingly, the net deferred tax assets have been fully offset by a valuation allowance. The valuation allowance increased by $6,272,000 during 1999, and $5,459,000 during 1998.

13. EMPLOYEE RETIREMENT PLAN

The Company has a qualified defined contribution plan covering substantially all employees. Participants are allowed to contribute a fixed percentage of their 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 $33,000, $103,000, and $146,000 for the years ended December 31, 2000, 1999 and 1998, respectively.

14. SUBSEQUENT EVENTS (UNAUDITED)

As of February 1, 2001, the Company entered into a 5-year lease for a 40,000 square foot facility located in the Stanford Research Park in Palo Alto, California. The new facility includes animal space, laboratories, offices, and a

GMP (Good Manufacturing Practices) suite. GMP facilities can be used to manufacture materials for clinical trials. The rent will average approximately $3.15 million per year over the term of the lease. The Company continues to lease the facilities in Lincoln, Rhode Island

14. SUBSEQUENT EVENTS (UNAUDITED) (CONTINUED)
obtained in connection with its former encapsulated cell technology, but has now succeeded in subleasing parts of those facilities: the 3,000 square-foot cell processing facility and approximately one-third of its former scientific and administrative facility ("SAF"). The Company continues to seek to sublet the remainder of the approximately 65,000 square foot SAF and the 21,000 square-foot pilot manufacturing facility, or to assign or sell its interests in these properties. There can be no assurance however, that we will be able to dispose of these properties in a reasonable time, if at all.

In February 2001, the Company was awarded a two-year, $300,000 per year grant from the NIH's Small Business Innovation Research (SBIR) office. The grant, which will support joint work with virologist Dr. Jeffrey Glenn at Stanford University, is aimed at characterizing the human cells that can be infected by human hepatitis viruses and to develop a small animal model using the cells that are most infectable by these viruses to develop screening assays and identify novel drug for the disease.

On January 9, 2001, the Company sold 22,616 Modex shares for a net price of 182.00 Swiss francs per share, which converts to $112.76 per share, for total proceeds of $2,550,000. In connection with this sale, the Company agreed not to resell any more of its Modex shares until April 12, 2001. On March 07, 2001 the market price of Modex stock was 145.00 Swiss francs which converts to $84.31 using exchange rates on that date, which represents an estimated fair market value of $8,732,797 for the remaining shares. If the Company were to seek to liquidate all or part of the remaining 103,577 Modex shares, the proceeds would depend on the share price and foreign currency exchange rates at the time of conversion.

15. QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

QUARTER	FIRST	SECOND	THIRD	FOURTH
(IN THOUSANDS, EXCEPT PER SHARE DATA) 2000:				
Net revenue	$ --	$ --	$ --	$ 74
Operating expenses	1,799	1,939	2,553	6,378
Net Loss	(1,794)	(532)	(2,539)	(6,260)
Basic and diluted net loss per share applicable to common shareholders before cumulative effect	$ (0.09)	$ (0.04)	$ (0.13)	$ (0.30)
Cumulative effect of a change in accounting principle(1)	--	--	--	$ (0.01)
Net loss per share applicable to common shareholders	$ (0.09)	$ (0.04)	$ (0.13)	$ (0.31)
1999:				
Net revenue	$ 2,501	$ 2,521	$ --	$ --
Operating expenses	4,562	4,454	6,690	5,253
Net Loss	(1,932)	(1,840)	(6,711)	(5,226)
Basic and diluted net loss per share	$ (0.10)	$ (0.10)	$ (0.36)	$ (0.27)

CONDENSED CONSOLIDATED BALANCE SHEETS

MARCH 31, 2001 ---------- (UNAUDITED) ASSETS Current assets: Cash and cash equivalents..... $ 4,499,158 Short-term restricted investments..... 8,412,650 Accrued interest receivable..... 9,706 Prepaid rent..... 909,415 Other current assets..... 473,696 ---------- Total current assets..... 14,304,625 Property held for sale..... 3,203,491 Property, plant and equipment, net..... 1,442,089 Other assets net..... 2,556,457 ---------- Total assets..... $ 21,506,661 ========== LIABILITIES AND STOCKHOLDERS' EQUITY Current liabilities: Accounts payable..... $ 237,856 Accrued expenses..... 785,064 Accrued wind-down costs..... 1,380,947 Current maturities of capitalized lease obligations..... 333,333 ---------- Total current liabilities..... 2,737,200 Capitalized lease obligations, less current maturities..... 2,521,250 Deposits..... 26,000 Deferred rent..... 760,508 Stockholders' equity Convertible preferred stock, $.01 par value; 1,000,000 shares authorized, 2,626 designated as 6% Cumulative Convertible Preferred Stock 1,500 shares issued and outstanding at March 31, 2000..... 1,500,000 Common stock, $.01 par value; 45,000,000 shares authorized; 21,458,211 shares issued and outstanding at March 31, 2001..... 214,612 Additional paid in capital..... 137,608,696 Accumulated deficit..... (130,229,646) Accumulated other comprehensive income..... 8,412,650 Deferred compensation..... (2,044,609) ---------- Total stockholders' equity..... 15,461,703 ---------- Total liabilities and stockholders' equity..... $ 21,506,661 ==========

SEE ACCOMPANYING NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

STEMCELLS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(UNAUDITED)

THREE MONTHS ENDED MARCH 31, ---------- --- 2001 2000 ---------- ---------- Revenue from grants..... $ 100,000 $ -- Operating expenses: Research and development..... 1,644,257 906,632 General and administrative..... 996,862 657,714 Wind-down expenses..... -- 234,386 ---------- ---------- 2,641,119 1,798,732 ---------- ---------- Loss from operations..... (2,541,119) (1,798,732) Other income (expense): Investment income..... 79,041 73,332 Interest expense..... - - (68,858) Gain on sale of

investments.....
2,550,230 -- Other
income.....
180,389 -- ---------- ---------- Total other
income, net.....
2,809,660 4,474 ---------- ---------- Net income
(loss)..... $
268,541 $(1,794,258) ========== ========== Basic
Earnings Per Share Net income (loss) per
share..... $ 0.01 $
(0.09) Shares - basic net income (loss) per
share..... 20,989,127 19,329,517 Diluted
Earnings Per Share Net income (loss) per
share..... $ 0.01 $
(0.09) Shares - diluted income per
share..... 22,405,358
19,329,517

SEE ACCOMPANYING NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS.

STEMCELLS, INC.

CONDENSED STATEMENTS OF CASH FLOWS

(UNAUDITED)

THREE MONTHS ENDED MARCH 31, ----------
2001 2000 ---------- ---------- Cash flows from
operating activities: Net income
(loss)..... $
268,541 ($1,794,258) Adjustments to reconcile net
income (loss) to net cash used for operating
activities: Depreciation and
amortization..... 142,554 204,449
Gain on sale of
investments..... (2,550,230) --
Compensation expense relating to the grant of stock
options.....
128,220 43,750 Net changes in operating assets and
liabilities..... (1,812,084) (1,776,812) ----------
- ---------- Net cash used in operating
activities..... (3,822,999) (3,322,870)
---------- ---------- Cash flows from investing
activities: Proceeds from sale of
investments..... 2,550,230 --
Purchase of property, plant and
equipment..... (114,734) (7,542)
Acquisition of other
assets..... (126,391) --
Proceeds from sales of
technology..... -- 2,800,000 ------
----- ---------- Net cash provided by investing
activities..... 2,309,105 2,792,458 -------
---- ---------- Cash flows from financing activities:
Proceeds from the exercise of stock options and
warrants.....
26,605 352,557 Principal payments under capitalized
lease obligations.... (82,500) (80,000) ---------- ---
-------- Net cash provided by (used by) financing
activities..... (55,895) 272,557 ---------- --------
--- Net decrease in cash and cash
equivalents..... (1,569,789) (257,855)
Cash and cash equivalents, beginning of
period..... 6,068,947 4,760,064 ---------- --
--------- Cash and cash equivalents, end of
period..... $ 4,499,158 $ 4,502,209
========== ========== Supplemental disclosure of cash
flow information: Interest
paid..... $
64,460 $ 68,858

SEE ACCOMPANYING NOTES TO CONDENSED FINANCIAL STATEMENTS.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

NOTE 1. BASIS OF PRESENTATION

On May 23, 2000, the company's name was changed to Stem Cells, Inc. from CytoTherapeutics, Inc. by vote of the shareholders at the Annual Meeting. The accompanying, unaudited, condensed consolidated financial statements have been prepared by the Company in accordance with generally accepted accounting principles for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by generally accepted accounting principles for complete financial statements. In the opinion of management, the accompanying financial statements include all adjustments, consisting of normal recurring accruals, considered necessary for a fair presentation of the financial position, results of operations and cash flows for the periods presented. Results of operations for the three months ended March 31, 2001 are not necessarily indicative of the results that may be expected for the entire fiscal year ending December 31, 2001.

The balance sheet at December 31, 2000 has been derived from the audited financial statements at that date but does not include all of the information and footnotes required for complete financial statements in accordance with accounting principles generally accepted in the United States. For the complete financial statements, refer to the audited financial statements and footnotes thereto as of December 31, 2000, included on form 10-K as amended.

NOTE 2. NET INCOME (LOSS) PER SHARE

Basic net income (loss) per common share is computed using the weighted average number of common shares outstanding during the period. Diluted net income per share is computed using the weighted average of common and diluted equivalent stock options and warrants outstanding during the period. We excluded all stock options and warrants from the calculation of diluted loss per common share for the period ended March 31, 2000, because these securities are antidilutive during that period.

NOTE 3. COMPREHENSIVE LOSS

The only component of other comprehensive loss is unrealized gains and losses on available for sale securities. For the three months ended March 31, 2001 and 2000, total comprehensive loss was $7,675,143 and $1,794,258 respectively.

NOTE 4. WIND-DOWN OF ENCAPSULATED CELL TECHNOLOGY RESEARCH AND DEVELOPMENT PROGRAM

As previously reported, in 1999 the Company restructured its 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 relocated its remaining research and development activities and its corporate headquarters to California, and has been seeking to dispose of its former science and administrative and pilot manufacturing facilities in Rhode Island. In December 2000, the company had a reserve of $1,780,000 related to the carrying costs for the Rhode Island facilities through 2001. On February 2001, the Company subleased portions of the facilities and are actively seeking to sublease, assign or sell our remaining interests in the properties. However, there can be no assurance that the Company will be able to dispose of these facilities in a reasonable time, if at all. At March 31,2001 the reserve was $1,381,000.

RESERVE AS AT 12/31/2000	PAYMENTS	RESERVE AS AT 03/31/01 -
$1,780,579	$399,632	$1,380,947

NOTE 5. INVESTMENTS

At March 31, 2001, the Company owned 103,577 shares of Modex Therapeutics Ltd. ("Modex"), a Swiss biotechnology company traded on the Swiss Exchange. On January 9, 2001, the Company sold 22,616 Modex shares for a net price of 182.00 Swiss francs per share, which converts to $112.76 per share, for total proceeds of $2,550,000. In connection with this sale, the Company agreed not to resell any more of its Modex shares until April 12, 2001. Accordingly, with an established market value, the investment is recorded as available-for-sale at an estimated fair market value. On March 31, 2001 the market price of Modex stock was 141.00 Swiss francs, or $81.22 using exchange rates on that date, which represented an estimated fair market value of $8,412,650 for the remaining shares. The unrealized gain was reported in other comprehensive income. The Company liquidated the remaining 103,577 Modex shares on April 30, 2001 for $5,232,168 net of commissions and other fees. See note 9.

NOTE 6. SALE OF SECURITIES

On August 3, 2000, the Company completed a $4 million common stock financing transaction with Millennium Partners, LP (the "Fund"). The Fund purchased the Company's common stock at $4.33 per share. As set forth in an adjustable warrant issued to the Fund on the closing date, the Fund may be entitled to receive additional shares of common stock on eight dates beginning six months from the closing and every three months thereafter. The adjustable warrant may be exercised at any time prior to the thirtieth day after the last of such dates. On the first adjustment date, January 27, 2001, the Fund became entitled to 463,369 additional shares, and it has exercised its warrant as to such shares. 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 the Company's common stock over a period prior to each date. The exercise price per share under the adjustable warrant is $.01. The Company will have the right, under certain circumstances, to cap the number of additional shares by purchasing part of the entitlement from the Fund at a purchase price based on the market price of such shares. The Fund also received a five-year warrant to purchase up to 101,587 shares of common stock at $4.725 per share. This warrant is callable at any time by StemCells at $7.875 per underlying share. The calculated value of this callable warrant using the Black-Scholes method is $376,888, which the Company accounts for as stock issuance cost that has no impact on stockholders' equity. The Company has accounted for the sale of the stock and warrants by adding that portion of the proceeds equal to the par value of the new shares to common stock and the balance, including the value of the warrants, to additional paid in capital. In addition, any repurchase of the shares by the Company would also be accounted for through additional paid in capital.

In the Purchase Agreement governing the August 3, 2000 sale to the Fund, the Company granted the Fund an option to purchase up to an additional $3 million of its common stock and a callable warrant and an adjustable warrant. The Fund can exercise this option in whole or in part at any time prior to August 3, 2001. The price per share of common stock to be issued upon exercise of the option will be based on the average market price of the common stock for a five-day period prior to the date on which the option is exercised. On August 23, 2000, the Fund exercised $1,000,000 of its option to purchase additional common stock. The Fund purchased the Company's common stock at $5.53 per share, which amount was based upon the average market price of the common stock for the five-day period prior to August 23, 2000. An adjustable warrant similar to the one issued on August 3, 2000 was issued to the Fund on August 30, 2000, but was cancelled on November 1, 2000 by agreement of the Company and the Fund. The Fund also received a five -year warrant to purchase up to 19,900 shares of common stock at $6.03 per share. This warrant is callable by the Company at any time at $10.05 per

NOTE 6. SALE OF SECURITIES (CONTINUED)
underlying share. The calculated value of this callable warrant using the Black-Scholes method is $139,897, which the Company accounts for as stock issuance cost that has no impact on stockholders' equity.

The adjustable warrant contains provisions regarding the adjustment or replacement of the warrants in the event of stock splits, mergers, tender offers and other similar events. The adjustable warrant also limits the number of shares that can be beneficially owned by the Fund to 9.99% of the total number of outstanding shares of Common Stock.

NOTE 7. LEASES

As of February 1, 2001, the Company entered into a 5-year lease for a 40,000 square foot facility located in the Stanford Research Park in Palo Alto, California. The new facility includes animal space, laboratories, offices, and a GMP (Good Manufacturing Practices) suite. GMP facilities can be used to manufacture materials for clinical trials. The rent will average approximately $3.2 million per year over the term of the lease. The company paid $1.2 million upfront related to this new lease. Approximately $909,000 of this payment has been recorded as prepaid rent and is being amortized over seven months. The Company continues to lease the facilities in Lincoln, Rhode Island obtained in connection with its former encapsulated cell technology, but has now succeeded in subleasing parts of those facilities: the 3,000 square-foot cell processing facility and approximately one-third of its former scientific and administrative facility ("SAF"). The Company continues to seek to sublet the remainder of the approximately 65,000 square foot SAF and the 21,000 square-foot pilot manufacturing facility, or to assign or sell its interests in these properties. There can be no assurance however, that we will be able to dispose of these properties in a reasonable time, if at all.

NOTE 8. GRANT

In February 2001, the Company was awarded a two-year, $300,000 per year grant from the NIH's Small Business Innovation Research (SBIR) office. The grant, which will support joint work with virologist Dr. Jeffrey Glenn at Stanford University, is aimed at characterizing the human cells that can be infected by human hepatitis viruses and to develop a small animal model using the cells that are most infectable by these viruses to develop screening assays and identify novel drug for the disease. The company received and recognized as revenue $100,000 from a prior SBIR grant relating to the neural program.

NOTE 9. SUBSEQUENT EVENTS

On April 30, 2001, StemCells sold its remaining 103,577 shares of Modex Therapeutics at 87.3 Swiss francs per share, or $50.51 per share at the exchange rate on that date, for total proceeds of $5,232,168 net of commissions and other fees. In addition, on April 30, 2001, in consideration for $300,000 received from Modex and the assistance of Modex in executing the sale of StemCells holding of Modex shares, StemCells agreed to assign to Modex the rights concerning future payments under the Asset Purchase and License Agreement between StemCells, Inc. and Neurotech SA, by which Neurotech SA purchased the Company's former encapsulated cell therapy technology.

NOTE 9. SUBSEQUENT EVENTS (CONTINUED)

On April 27, 2001, the Company reached an agreement to terminate as of May 15, 2001, without cost, its lease on part of its former Sunnyvale headquarters.

NOTE 10. RECENT ACCOUNTING PRONOUNCEMENT

In June 1998, The Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 133, "Accounting for Derivative Financial Instruments and for Hedging Activities" ("SFAS 133"). The Statement requires the Company to recognize all derivatives on the balance sheet at fair value. Derivatives that are not hedges must be adjusted to fair value through income. If the derivative is a hedge, depending on the nature of the hedge, changes in fair value of derivatives are either offset against the change in fair value of assets, liabilities, or firm commitments through earnings or recognized in other comprehensive income until the hedged item is recognized in earnings. As the Company had no derivative instruments and does not currently engage in hedging activities, the adoption of Statement No. 133 on January 1, 2001 had no impact on StemCells results, operations or financial statement.

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The following table sets forth the costs and expenses payable by the Registrant in connection with the sale of the securities being registered. All amounts shown are estimates except the SEC registration fee.

SEC registration fee	$ 2,031
Printing and engraving expenses	$ 5,000
Legal fees and expenses	$10,000
Accounting fees and expenses	$ 3,000
Miscellaneous	$10,000
Total	$30,031

ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

Section 145 of the Delaware General Corporation Law provides that a corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, other than an action by or in the right of the corporation, by reason of the fact that the person is or was a director, officer, employee or agent of the corporation or is or was serving at the corporation's request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses, including attorneys' fees, judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with the action, suit or proceeding if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe the person's conduct was unlawful. The power to indemnify applies to actions brought by or in the right of the corporation as well, but only to the extent of expenses, including attorneys' fees but excluding judgments, fines and amounts paid in settlement, actually and reasonably incurred by the person in connection with the defense or settlement of the action or suit and with the further limitation that in these actions no indemnification shall be made in the event of any adjudication of negligence or misconduct in the performance of his duties to the corporation, unless a court believes that in light of all the circumstances indemnification should apply.

Section Ten of our Restated Certificate of Incorporation provides that we shall, to the maximum extent legally permitted, indemnify and upon request advance expenses to each person who is or was a party or is threatened to be made a party to any threatened, pending or completed action, suit proceeding, or claim (civil, criminal, administrative or investigative) by reason of the fact that he is or was, or has agreed to become, a director or officer of the Company, or is or was serving, or has agreed to serve, at the request of the Company, as a director, officer, partner, employee, agent or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprises, provided, however, that the Company is not required to indemnify or advance expenses to any person in connection with any action, suit, proceeding, claim or counterclaim initiated by or on behalf of such person. The indemnification provided for in Section Ten is expressly not exclusive of any other rights to which those seeking indemnification may be entitled under any by-law, agreement or vote of directors or stockholders or otherwise, and shall inure to the benefit of the heirs and legal representatives of such persons.

Section 145(g) of the Delaware General Corporation Law provides that the Company shall have the power to purchase and maintain insurance on behalf of its officers, directors, employees and agents, against any liability asserted against and incurred by such persons in any such capacity.

We have obtained insurance covering our directors and officers against certain liabilities.

Section 102(b)(7) of the General Corporation Law of the State of Delaware provides that a corporation may eliminate or limit the personal liability of a director to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, provided that such provisions shall not eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the General Corporation Law of the State of Delaware, or (iv) for any transaction from which the director derived an improper personal benefit. No such provision shall eliminate or limit the liability of a director for any act or omission occurring prior to the date when such provision becomes effective.

Pursuant to the Delaware General Corporation Law, Section Nine of the Company's Restated Certificate of Incorporation eliminates a director's personal liability for monetary damages for breach of fiduciary duty as a director, except in circumstances involving a breach of the director's duty of loyalty to

StemCells, Inc. or its shareholders, acts or omissions not in good faith, intentional misconduct, knowing violations of the law, self-dealing or the unlawful payment of dividends or repurchase of stock.

ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES.

The shares of capital stock and other securities issued in the following transactions were offered and sold in reliance upon the following exemptions: (i) in the case of the transactions described in (a), (b) and (d) below, Section 4(2) of a the Securities Act or Regulation D promulgated thereunder relative to sales by an issuer not involving a public offering; and (ii) in the case of the transactions (c) below, Section 3(b) of the Securities Act and Rule 701 promulgated thereunder relative to sales pursuant to certain compensatory benefits plans.

(a) On April 13, 2000, the Registrant sold 1,500 shares of 6% cumulative convertible preferred stock plus warrants for a total of 75,000 shares of the Registrant's common stock to two members of its Board of Directors for $1,500,000, on terms more favorable than it was then able to obtain from outside investors. The sale was made in reliance on Rule 506 of Regulation D promulgated under the Securities Act of 1933, as amended. The shares of preferred stock are convertible at the option of the holders into common stock at $3.77 per share (based on the face value of the shares). The holders of the preferred stock have liquidation rights equal to their original investments plus accrued but unpaid dividends. Any unconverted preferred stock is converted, at the applicable conversion price, on April 13, 2002. The warrants, which are exercisable at $6.58 per share, expire on April 13, 2005.

On August 3, 2000, the Registrant completed a $4 million common stock financing transaction with Millennium Partners, LP, or the Fund. The sale was made in reliance on Rule 506 of Regulation D promulgated under the Securities Act of 1933, as amended. The Registrant received $3 million of the purchase price at the closing and received the remaining $1 million upon effectiveness of a registration statement covering the shares owned by the Fund. The Fund purchased the Registrant's 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 the Registrant's common stock over a period prior to each date. The Registrant will have the right, under certain circumstances, to cap the number of additional shares by purchasing part of the entitlement from the Fund. On January 27, 2001, Millennium's August 3, 2000 adjustable warrant became exercisable for 463,369 shares of our common stock, and Millennium purchased all of those shares for $4,634 on March 30, 2001. On April 27, 2001, the adjustable warrant became exercisable for an additional 622,469 shares of our common stock, and Millennium purchased all of those shares for $6,225 on July 19, 2001.

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 the Registrant at $7.875 per underlying share.

The Fund also 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 that option to purchase Registrant's common stock at $5.53 per share. The Registrant received $750,000 of the purchase price in connection with the closing on August 30, 2000 and received the remaining $250,000 upon effectiveness of a registration statement covering the shares owned by the Fund. At the closing on August 30, 2000, the Fund also received an adjustable warrant similar to the one issued on August 3, 2000. This adjustable warrant was canceled by agreement of the Registrant and the Fund on November 1, 2000. The Fund also received a five year warrant to purchase up to 19,900 shares of the Registrant's common stock at $6.03 per share. This warrant is callable by the Registrant at any time at $10.05 per underlying share.

On June 8, 2001, the Fund exercised its remaining option to purchase $2 million of additional common stock. At the closing on June 21, 2001, the Fund purchased 457,750 shares of common stock at $4.3692 per share. The Fund paid $1,500,000 of the purchase price at the closing and will pay the remainder upon effectiveness of a registration statement covering the shares purchased by the Fund and issuable upon exercise of the warrants received by the Fund. In connection with the closing, the Fund received an adjustable warrant similar to the adjustable warrant issued on August 3, 2000. The Fund also received a five-year warrant to purchase 50,352 shares of additional common stock at a price per share of $4.7664. This warrant is callable by the Registrant at any time at $7.944 per underlying share.

(b) We entered into a license agreement with NeuroSpheres, Ltd. on October 30, 2000 expanding our rights to the intellectual property covered by the license agreement. See "Business--License Agreements and Sponsored Research Agreements--Neurospheres, Ltd." Under that license agreement, on October 30, 2000, we issued 65,000 shares of our common stock to NeuroSpheres and we agreed to file a registration statement covering the resale of those shares by NeuroSpheres.

(c) On May 25, 2000 we issued 2,800 shares of unregistered Rule 144 common stock to the California Institute of Technology.

(d) On May 10, 2001, we entered into a common stock purchase agreement with Sativum Investments Limited, for the potential future issuance and sale of up to $30,000,000 million of our common stock, subject to restrictions and other obligations that are described throughout this prospectus. We, at our sole discretion, may draw down on this facility, sometimes termed an equity line, from time to time, and Sativum is obligated to purchase shares of our common stock at a 6% discount to a volume weighted average market price over the 20 trading days following the drawdown notice. Our volume weighted average market price is calculated by adding the total dollars traded in every transaction in a given trading day and dividing that number by the total number of shares traded during that trading day. We are limited with respect to how often we can exercise a drawdown and the amount of each drawdown.

The Registrant delivered a draw down notice to Sativum Investments Limited, dated as of July 11, 2001, in connection with the common stock purchase agreement dated as of May 10, 2001 evidencing an equity line facility between the Registrant and Sativum. In the draw down notice, the Registrant notified Sativum that it is exercising its right to sell up to $5,000,000 of its common stock to Sativum based on the formula in the stock purchase agreement, during the 20 trading days beginning on July 12, 2001, and ending on August 8, 2001. During the first 10 trading days, Sativum purchased a total of 425,134 shares of common stock at an average purchase price of $5.88 per share, net of Sativum's discount of six percent. The Registrant's placement agents, Pacific Crest Securities, Inc. and Granite Financial Group, Inc. received $50,000 and $25,000, respectively, as placement fees in connection with this draw down, resulting in net proceeds to the Registrant of $2,424,000 for the first 10 trading day settlement period after paying escrow fees.

ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) EXHIBITS. The following exhibits are filed as part of this registration statement:

NUMBER	DESCRIPTION
3.1*	Restated Certificate of Incorporation of the Registrant
3.2++	Amended and Restated By-Laws of the Registrant.
4.1*	Specimen Common Stock Certificate.
4.2++++	Form of Warrant Certificate issued to a certain purchaser of the Registrant's Common Stock in April

1995. 4.3X Warrant to Purchase Common Stock--Mark Angelo. 4.4X Warrant to Purchase Common Stock--Robert Farrell. 4.5X Warrant to Purchase Common Stock--Joseph Donahue. 4.6X Warrant to Purchase Common Stock--Hunter Singer. 4.7X Warrant to Purchase Common Stock--May Davis. 4.8X Common Stock Purchase Warrant. 4.9X Callable Warrant, dated July 31, 2000, issued to Millennium Partners, L.P. 4.10XXX Registration Rights Agreement dated as of May 10, 2001 between the Company and Sativum Investments Limited. 4.11XXX Warrant, dated May 10, 2001, to Purchase Common Stock issued to Sativum Investments Limited. 4.12XXX Warrant, dated May 10, 2001, to Purchase Common Stock issued to Pacific Crest Securities, Inc. 4.13XXX Warrant dated May 10, 2001, to Purchase Common Stock issued to Granite Financial Group, Inc.

4.14XXX Callable Warrant, dated June 21, 2001, issued to Millennium Partners, L.P. 4.15XXX Common Stock Purchase Warrant, Class A, dated June 21, 2001, issued to Millennium Partners, L.P. 5.1 Opinion of Ropes & Gray. 10.1* Amendment to Registration Rights dated as of February 14, 1992 among the Registrant and certain of its stockholders. 10.2* Form of at-will Employment Agreement between the Registrant and most of its employees. 10.3* Form of Agreement for Consulting Services between the Registrant and members of its Scientific Advisory Board. 10.4* Form of Nondisclosure Agreement between the Registrant and its Contractors. 10.5* Master Lease and Warrant Agreement dated April 23, 1991 between the Registrant and PacifiCorp Credit, Inc. 10.6* 1988 Stock Option Plan. 10.7* 1992 Equity Incentive Plan. 10.8* 1992 Stock Option Plan for Non-

Employee Directors. 10.9**!!!! 1992 Employee Stock Purchase Plan.

NUMBER	DESCRIPTION
10.12++	Research Agreement dated as of March 16, 1994 between NeuroSpheres, Ltd. and Registrant.
10.13++	Term Loan Agreement dated as of September 30, 1994 between The First National Bank of Boston and Registrant.
10.14++	Lease Agreement between the Registrant and Rhode Island Industrial Facilities Corporation, dated as of August 1, 1992.
10.15++	First Amendment to Lease Agreement between Registrant and The Rhode Island Industrial Facilities Corporation dated as of September 15, 1994.
10.17**++++	Development, Marketing and License Agreement, dated as of March 30, 1995 between Registrant and Astra AB.
10.18++++	Form of Unit Purchase Agreement to be executed by the purchasers of the Common Stock and Warrants offered in April 1995.
10.19+++	Form of Common Stock Purchase Agreement to be executed among the Registrant and certain

purchasers of the Registrant's Common Stock. 10.22### Lease Agreement dated as of November 21, 1997 by and between Hub RI Properties Trust, as Landlord, and CytoTherapeutics, Inc., as Tenant. 10.24!! CTI individual stockholders option agreement dated as of July 10, 1996 among the Company and the individuals listed therein. 10.25!! CTI Valoria option agreement dated of July 10, 1996 between the Company and the Societe Financiere Valoria SA. 10.26!!! Term Loan Agreement dated as of October 22, 1996 between The First National Bank of Boston and the Registrant. 10.27*** Agreement and Plan of Merger dated as of August 13, 1997 among StemCells, Inc., the Registrant and CTI Acquisition Corp. 10.28*** Consulting Agreement dated as of September 25, 1997 between Dr. Irving Weissman and the Registrant. 10.29### Letter Agreement among each of Dr. Irving Weissman and Dr. Fred H. Gage and the Registrant. 10.32**** StemCells, Inc. 1996 Stock Option Plan. 10.33**** 1997 StemCells Research Stock Option Plan (the "1997 Plan"). 10.34**** Form of Performance-Based Incentive Option Agreement issued under the 1997 Plan. 10.35### Employment

	Agreement dated as of September 25, 1997 between Dr. Richard M. Rose and the Registrant.
10.38[*]	Rights Agreement, dated as of July 27, 1998 between Bank Boston, N.A. as Rights Agent and the Registrant.
10.40Section**	Consulting Services Agreement dated as of July 27, 1998, as amended December 19, 1998 between Dr. John J. Schwartz and the Registrant.
10.41Section**	Letter Agreement dated as of December 19, 1998 between John J. Schwartz and the Registrant.
10.42Section**	License Agreement dated as of October 27, 1998 between The Scripps Research Institute and the Registrant.

NUMBER	DESCRIPTION
---	10.43Section** License Agreement dated as of October 27, 1998 between The Scripps Research Institute and the Registrant.
10.44Section**	License Agreement dated as of November 20, 1998 between The Scripps Research Institute and the Registrant.
10.45SectionSection**	Purchase Agreement and License Agreement dated as of December 29, 1999 between Neurotech S.A. and the Registrant.
10.46**	License Agreement, dated as of June 1999, between The Scripps Research Institute and the Registrant.
10.47**	License Agreement, dated as of June 1999, between The Scripps Research Institute and the Registrant.
10.48X	Form of Registration Rights

Agreement, dated as of July 31, 2000, between StemCells, Inc. and investors. 10.49X Subscription Agreement, dated as of July 31, 2000, between StemCells, Inc. and Millennium Partners, L.P. 10.50XXX Common Stock Purchase Agreement, dated as of May 10, 2001, between the Company and Sativum Investments Limited. 10.51XXX Esrow Agreement, dated as of May 10, 2001, among the Company, Sativum Investments Limited and Epstein, Becker & Green, P.C. 10.52XX License Agreement, dated as of October 30, 2000, between the Company and Neuro Spheres Ltd. 10.53XX Letter Agreement, dated January 2, 2001, between the Company and Martin McGlynn. 10.54XX Lease, dated February 1, 2001, between the Board of Trustees of Stanford University and the Company. 10.55XXX Registration Rights Agreement, dated as of June 21, 2001, by and between the Company and Millennium Partners, L.P. 10.56XXX Subscription Agreement, dated as of June 21, 2001, by and between the Company and Millennium Partners, L.P. 10.57SectionSectionSection 2001 Equity Incentive Plan. 21.1X Subsidiaries of the Registrant. 23.1 Consent of Ernst & Young LLP, Independent Auditors. 23.2 Consent of Ropes & Gray (included in the form of opinion filed as Exhibit 5.1). 24.1 Power of Attorney pursuant to which amendments to this registration statement may be filed (contained on page II-9 hereto). 99.2XX Side Letter, dated March 17, 2001, between the Company and Oleh S. Hnatiuk regarding NeuroSpheres License Agreement, dated October 30, 2000.

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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. 333-85494.

+++ 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. 333-97272.

++++ 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. 333-91228.

* Previously filed with the Commission as Exhibits to, and incorporated herein by reference to, Registration Statement on Form S-1, File No. 333-45739.

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** Confidential treatment requested as to certain portions. The term "confidential treatment" and the mark "**" as used throughout the indicated Exhibits mean that material has been omitted and separately filed with the Commission.

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**** 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.

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

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

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

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

ITEM 17. UNDERTAKINGS.

(a) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the provisions described under Item 14 above, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

(b) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial BONA FIDE offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) To file a post-effective amendment to the Registration Statement to include any financial statements required by section 10(a)(3) of the Securities Act.

(c) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial BONA FIDE offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Palo Alto, State of

California, on the 3rd day of August, 2001.

STEMCELLS, INC.

BY: /S/ MARTIN M. MCGLYNN

Martin M. McGlynn
Chief Executive Officer

POWER OF ATTORNEY

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities indicated on August 3, 2001. Each person whose signature appears below hereby constitutes and appoints Martin M. McGlynn and Iris Brest, and either of them, each with full power of substitution, his true and lawful attorney-in-fact and agent with full power to him or her to sign for him and in his name in the capacities indicated below any and all amendments (including post-effective amendments) to this Registration Statement and to file the same, with exhibits thereto, and other documents in connection therewith, and he hereby ratifies and confirms his signature as it may be signed by said attorney to any and all such amendments.

SIGNATURE	TITLE
- Martin M. McGlynn,	President, Chief Executive Officer
/s/ MARTIN M. MCGLYNN	(Principal Executive Officer), Director
-- George Koshy,	Controller and Acting Chief Financial Officer
(Principal Financial Officer and /s/ GEORGE KOSHY	Principal Accounting Officer)
-- Mark J. Levin /s/ MARK J. LEVIN	Director
-- Roger M. Perlmutter, M.D., Ph.D. /s/ ROGER M.	

PERLMUTTER
Director -

-- John J.
Schwartz,
Ph. D. /s/
JOHN J.
SCHWARTZ
Director -

-- Irving
Weissman,
M.D.
Director -

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EXHIBIT INDEX

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4.4X	Warrant to Purchase Common Stock--Robert Farrell.
4.5X	Warrant to Purchase Common

Stock--
Joseph
Donahue.
4.6X Warrant
to Purchase
Common
Stock--
Hunter
Singer. 4.7X
Warrant to
Purchase
Common
Stock--May
Davis. 4.8X
Common Stock
Purchase
Warrant.
4.9X
Callable
Warrant,
dated July
31, 2000,
issued to
Millennium
Partners,
L.P. 4.10XXX
Registration
Rights
Agreement,
dated as of
May 10,
2001,
between the
Company and
Sativum
Investments
Limited.
4.11XXX
Stock
Purchase
Warrant,
dated May
10, 2001,
issued to
Sativum
Investments
Limited.
4.12XXX
Stock
Purchase
Warrant,
dated May
10, 2001,
issued to
Pacific
Crest
Securities,
Inc. 4.13XXX
Stock
Purchase
Warrant,
dated May
10, 2001,
issued to
Granite
Financial
Group, Inc.
4.14XXX
Callable
Warrant,
dated June
21, 2001,
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Millennium
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Common Stock
Purchase
Warrant,
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dated June

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NUMBER DESCRIPTION -

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10.49	X Subscription Agreement, dated as of July 31, 2000, between StemCells, Inc. and Millennium Partners, L.P.
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10.55XXX Registration Rights Agreement, dated as of June 21, 2001, by and between the Company and Millennium Partners, L.P.

10.56XXX Subscription Agreement, dated as of June 21, 2001, by and between the Company and Millennium Partners, L.P. 21.1X Subsidiaries of the Registrant.

23.1

Consent of Ernst & Young LLP, Independent Auditors. 23.2 Consent of Ropes & Gray (included in the opinion filed as Exhibit 5.1). 24.1 Power of Attorney pursuant to which amendments to this registration statement may be filed (contained on page II-9 thereto). 99.2XX Side Letter, dated March 17, 2001, between the Company and Oleh S. Hnatiuk regarding NeuroSpheres License Agreement, dated October 30, 2000.

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!!!! 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 8-K on January 14, 2000

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

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

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

EXHIBIT 5.1

[FORM OF ROPES & GRAY OPINION TO BE DELIVERED
TO REGISTRANT UPON ISSUANCE OF SHARES]

[ROPES & GRAY LETTERHEAD]

[date]

StemCells, Inc.
3155 Porter Drive
Palo Alto, CA 94304

Ladies and Gentlemen:

This opinion is furnished to you in connection with the filing of a prospectus or prospectus supplement to a registration statement on Form S-3 (the "Registration Statement"), filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended, for the registration of 1,900,000 shares of Common Stock, $0.01 par value (the "Shares"), of StemCells, Inc., a Delaware corporation (the "Company"). The Shares are to be sold from time to time to Millennium Partners, L.P. and registered for resale by Millennium to the public under the Registration Statement.

We have acted as counsel for the Company in connection with its proposed issuance and sale of the Shares. For purposes of this opinion, we have examined and relied upon such documents, records, certificates and other instruments as we have deemed necessary.

We express no opinion as to the applicability of compliance with or effect of Federal law or the law of any jurisdiction other than The Commonwealth of Massachusetts and the corporate laws of the State of Delaware.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized and, when the Shares have been issued and sold and the Company has received the consideration therefor in accordance with the terms of the various agreements between Millennium and the Company, the Shares will be validly issued, fully paid and non-assessable.

We hereby consent to your filing a form of this opinion as an exhibit to the Registration Statement and to the use of our name therein and in the related prospectus under the caption "Legal Matters."

It is understood that this opinion is to be used only in connection with the offer and sale of the Shares while the Registration Statement is in effect.

Very truly yours,

/s/ Ropes & Gray

Ropes & Gray

EXHIBIT 23.1

CONSENT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

We consent to the reference to our firm under the captions "Selected Consolidated Financial Data" and "Experts" and to the use of our report dated February 23, 2001 in the Registration Statement on Form S-3 and related Prospectus of StemCells, Inc. for the registration of 1,900,000 shares of its common stock.

Palo Alto, California
August 2, 2001