AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON MAY 25, 2001

REGISTRATION NO. 333-

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-1
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	PROPOSED MAXIMUM AGGREGATE OFFERING PRICE	AMOUNT OF REGISTRATION FEE
Common Stock, par value $.01 per share.....	up to 10,000,000(1)	(2)	$31,914,894(3)	$7,979
Common Stock, par value $.01 per share(4)...	350,000	$3.15(5)	$ 1,102,500	$ 276
Total:.....	10,350,000		$33,017,394	$8,255

(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) of the Securities Act of 1933.

(2) The price per share will vary based on the volume-weighted average daily price of the Company's common stock during the drawdown periods described in this registration statement.

(3) This represents the maximum fair market value of shares sold to Sativum Investments Limited under the common stock purchase agreement. The maximum net proceeds the Company can receive is $30,000,000 less an aggregate cash placement fee of 3% of net proceeds payable to its placement agents Pacific Crest Securities, Inc. and Granite Financial Group, Inc.

(4) Issuable upon exercise of the warrants issued to Sativum Investments Limited, Pacific Crest Securities, Inc. and Granite Financial Group, Inc.

(5) 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 May 18, 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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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.

SUBJECT TO COMPLETION, DATED MAY 25, 2001

STEMCELLS, INC.
10,350,000 SHARES OF COMMON STOCK

This prospectus relates to up to 10,000,000 shares of common stock that may be issued from time to time at our discretion pursuant to a common stock purchase agreement, as further described in this prospectus, with Sativum Investments Limited, a British Virgin Islands corporation, and 350,000 shares of common stock issuable upon the exercise of warrants issued to Sativum, Pacific Crest Securities, Inc. and Granite Financial Group, Inc. in connection with the common stock purchase agreement. The total number of shares of common stock that may be sold by Sativum, Pacific Crest and Granite pursuant to this prospectus would constitute 48.2% of our issued and outstanding common stock as of May 10, 2001, the date of the common stock purchase agreement. However, we may not sell pursuant to the common stock purchase agreement more than 3,922,606 shares of common stock, which equals 19.9% of our issued and outstanding common stock as of May 10, 2001, minus the shares underlying the warrants, unless and until we receive the approval of our stockholders as required pursuant to the Nasdaq National Market's issuer designation requirements.

We will receive the net sale price of any common stock that we sell to Sativum pursuant to the common stock purchase agreement or that we issue upon the exercise of the warrants by Sativum, Pacific Crest or Granite. Sativum, Pacific Crest and Granite may resell those shares pursuant to this prospectus. The price at which we will sell the shares to Sativum pursuant to the common stock purchase agreement will be equal to 94% of the average of the volume weighted average price of our common stock during the twenty trading days immediately following our request to draw down an investment by Sativum under the common stock purchase agreement. The registration of shares of our common stock issued pursuant to the common stock purchase agreement and upon the exercise of the warrants that may be offered pursuant to this prospectus does not necessarily mean that any of those shares will ultimately be offered and sold.

Sativum is an "underwriter" within the meaning of the Securities Act of 1933 in connection with its sales.

Our common stock is listed on the Nasdaq National Market under the symbol "STEM." The last reported sales price for our common stock on the Nasdaq National Market on May 24, 2001 was $3.60 per share.

THE SECURITIES OFFERED HEREBY INVOLVE A HIGH DEGREE OF RISK.
SEE "RISK FACTORS" BEGINNING ON PAGE 6.

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.

TABLE OF CONTENTS

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 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. For more details on the equity line, see "Common Stock Purchase Agreement" elsewhere in this prospectus.

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 10,350,000 shares of common stock. None of these shares will be offered by us. Up to 10,000,000 of these shares may be offered for resale by Sativum Investments Limited. We may require Sativum to purchase up to $30,000,000 of shares of our common stock from time to time at our discretion at a discount to a market-based price at the time of each sale to Sativum. The number of shares sold by us to Sativum and resold by this prospectus may be significantly lower than 10,000,000 shares. See "Common Stock Purchase Agreement and "Risk Factors--Risks Related to the Equity Line and Our Financial Condition." The remaining 350,000 shares, issuable upon the exercise of warrants, may be offered for resale by this prospectus by Sativum, Pacific Crest Securities Inc., Granite Financial Group Inc. or their transferees.
Common stock to be outstanding after this offering.....	Up to 36,808,211 shares of common stock, based on shares outstanding as of March 31, 2001 and assuming that 10,350,000 shares are issued under the common stock purchase agreement and the warrants. We are not permitted to issue more than 3,922,606 shares pursuant to the common stock purchase agreement without stockholder approval, which we have not yet sought or received. In calculating the number of shares of common stock, we did not include 3,962,087 shares issuable upon exercise of warrants and options outstanding as of March 31, 2001, shares issuable to a stockholder upon exercise of an option to purchase up to $2,000,000 in common stock or shares issuable upon conversion of our 6% cumulative convertible preferred stock. See "Capitalization."
Use of proceeds.....	We will not receive any of the proceeds of the resale of shares by Sativum, Pacific Crest or Granite. We will, however, receive proceeds from sales of shares to Sativum under the common stock purchase agreement and upon exercise of warrants by Sativum, Pacific Crest or Granite, and we intend to use these net proceeds for general corporate purposes. See "Use of Proceeds."
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.

	YEAR ENDED DECEMBER 31,			THREE MONTHS ENDED 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.

RISKS RELATED TO OUR BUSINESS

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

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

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

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

Prior to our reorganization in 1999 and the resulting consolidation of all functions in California, we carried out our former encapsulated cell therapy programs at facilities in Lincoln, Rhode Island, where we also had our administrative offices. Although we have vacated these facilities, we have continuing obligations for lease payments and operating costs of approximately $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. We are currently seeking to sublease the science and administrative facility and to sell the pilot manufacturing facility, but may not be able to do so. These continuing costs significantly reduce our cash resources and adversely affect our ability to fund further development of our stem cell technology. The lease for the science and administrative facility contains a provision requiring occupancy of the premises and we currently may be in violation of this provision. The landlord agreed not to take any action as a result of this violation until November 19, 2000. We cannot give any assurance that the landlord will extend any additional forebearance. If the landlord decides to pursue its rights after any period of forebearance, we may be required to pay the landlord the entire amount due for the rest of the lease period. In March 2001, the 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 regarding any such arrangement and we may fail to obtain any such agreement on terms acceptable to us, if at all. Even if we enter into these arrangements, we may not be able to satisfy our obligations under them or renew or replace them after their original terms. Furthermore, these arrangements may require us to grant certain rights to third parties, including exclusive marketing rights to one or more products, or may have other terms that are burdensome to us, and may involve the acquisition of our securities. If any of our collaborators terminates its relationship with us or fails to perform its obligations in a timely manner, the development or commercialization of our technology and potential products may be adversely affected.

WE 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 have no cooperative agreements and we have received only two research grants for our stem cell technology, and we may not obtain any such agreements or additional grants in the future, or receive any revenues from them.

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

We own or license a number of patents or pending patent applications covering human nerve stem cell cultures, central nervous system stem cell cultures, neuroblast cultures, peripheral nervous system stem cell cultures, and an animal model for liver failure. Patent protection for products such as those we propose to develop is highly uncertain and involves complex and continually evolving factual and legal questions. The governmental authorities that consider patent applications can deny or significantly reduce the patent coverage requested in an application before or after issuing the patent. Consequently, we do not know whether any of our pending applications will result in the issuance of patents, or if any existing or future patents will provide sufficient protection or significant commercial advantage or if others will circumvent these patents. Since patent applications are secret until patents are issued in the United States or until the applications are published in foreign countries, and since publication of discoveries in the scientific or patent literature often lags behind actual discoveries, we cannot be certain that we were the first to make the inventions covered by each of our pending patent applications or that we were the first to file patent applications for such inventions. Our patents may not issue from our pending or future patent applications or, if issued, may not be of commercial benefit to us, or may not afford us adequate protection from competing products. In addition, third parties may challenge our patents or governmental authorities may declare them invalid. In the event that a third party has also filed a patent application relating to inventions claimed in our patent applications,

we may have to participate in proceedings to determine priority of invention. This could result in substantial uncertainties and cost for us, even if the eventual outcome is favorable to us, and the outcome might not be favorable to us. Even if a patent issues, a court could decide that the patent was issued invalidly.

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

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

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

A number of pharmaceutical, biotechnology and other companies, universities and research institutions have filed patent applications or have received patents relating to cell therapy, stem cells and other technologies potentially relevant to or necessary for our expected products. We cannot predict which, if any, of the applications will issue as patents. We are also aware of a number of patent applications and patents claiming use of genetically modified cells to treat disease, disorder or injury. We are aware of three patents issued to two competitors claiming certain methods for enriching central nervous system stem cells through gene modification of in vitro cultured cells. These patents were issued or licensed to NeuralStem and Layton Bioscience. It is possible that NeuralStem or Layton Bioscience will be able to produce commercially available stem cell products before we can. These genetically modified cells may be effective in treating defective, diseased or damaged central nervous system tissue.

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

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

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

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

WE COMPETE WITH COMPANIES THAT HAVE SIGNIFICANT ADVANTAGES OVER US.

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

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

The relative speed with which we and our competitors can develop products, complete the clinical testing and approval processes, and supply commercial quantities of a product to market will affect our ability to gather market acceptance and market share. With respect to clinical testing, competition may delay progress by limiting the number of clinical investigators and patients available to test our potential products.

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

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

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

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

WE DEPEND ON A LIMITED NUMBER OF KEY PERSONNEL.

We are highly dependent on the principal members of our management and scientific staff and certain of our outside consultants, including the members of our scientific advisory board, our chief

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

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

In both domestic and foreign markets, sales of potential products are likely to depend in part upon the availability and amounts of reimbursement from third party health care payor organizations, including government agencies, private health care insurers and other health care payors such as health maintenance organizations and self-insured employee plans. There is considerable pressure to reduce the cost of therapeutic products, and government and other third party payors are increasingly attempting to contain health care costs by limiting both coverage and the level of reimbursement for new therapeutic products, and by refusing, in some cases, to provide any coverage for uses of approved products for disease indications for which the Food and Drug Administration has not granted marketing approval. Significant uncertainty exists as to the reimbursement status of newly approved health care products. We can give no assurance that reimbursement will be provided by such payors at all or without substantial delay, or, if such reimbursement is provided, that the approved reimbursement amounts will be sufficient to enable us to sell products we develop on a profitable basis. Changes in reimbursement policy could also adversely affect the willingness of pharmaceutical companies to collaborate with us on the development of our stem cell technology.

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

OUR QUARTERLY OPERATING RESULTS MAY FLUCTUATE.

Our operating results have varied, and may in the future continue to vary, significantly from quarter to quarter due to a variety of factors. These factors include the receipt of one-time license or milestone payments under collaborative agreements, costs associated with the winddown of our encapsulated cell therapy programs, variation in the level of expenses related to our research and development efforts, receipt of grants or other support for our research and development efforts, and other factors. Quarterly comparisons of our financial results are not necessarily meaningful and you should not rely upon them as an indication of future performance.

RISKS RELATED TO THE EQUITY LINE AND OUR FINANCIAL CONDITION

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 the equity line or choose not to do so, we intend to pursue our needed capital resources through equity and debt financings, corporate alliances, grants and collaborative research arrangements. We may fail to obtain the necessary capital resources from any such sources when needed or on terms acceptable to us. Our ability to complete any such arrangements successfully will depend upon market conditions and, more specifically, on continued progress in our research and development efforts. We are prohibited from entering into other stand-by equity based credit facilities during the term of the common stock purchase agreement.

WE MAY BE UNABLE TO ACCESS ALL OR PART OF OUR EQUITY LINE.

If the trading volume and/or price of our common stock falls below established levels, then we will not be able to draw down all of the $30 million committed by Sativum pursuant to the equity line. In addition, we may choose not to draw down some or all of the equity line. If we do not receive stockholder approval to issue more than 3,922,606 shares under the equity line, we also will not be able to access some of the funds in the equity line. Furthermore, if our common stock is delisted from the Nasdaq National Market, or if we experience a material adverse change to our business, operations, properties or financial condition that is not cured within 30 days of the change, the common stock purchase agreement will terminate. If we are unable to meet the conditions to a drawdown in the common stock purchase agreement, we will not be able to draw down any funds until those conditions are met. See "Common Stock Purchase Agreement."

OUR COMMON STOCK PURCHASE AGREEMENT WITH SATIVUM AND THE ISSUANCE OF SHARES TO SATIVUM THEREUNDER MAY CAUSE SIGNIFICANT DILUTION TO OUR STOCKHOLDERS OR CONTRIBUTE TO A PERCEIVED RISK OF DILUTION.

The resale by Sativum of the common stock that it purchases from us will increase the number of our publicly traded shares, which could depress the market price of our common stock. Moreover, because all the shares we sell to Sativum will be available for immediate resale, the prospect of our sales to Sativum could depress the market price for our common stock. The shares of our common stock issuable to Sativum under the equity line will be sold at a 6% discount to the volume-weighted average daily price of our common stock during the applicable drawdown period, and the proceeds paid to us upon each drawdown will be net of an aggregate 3% placement fee to our placement agents, Pacific Crest Securities Inc. and Granite Financial Group, Inc., so we will be required to issue more shares than would be necessary at a market price to receive a given amount of cash proceeds. If we require Sativum to purchase our common stock at a time when our stock price is low, our existing common stockholders will experience substantial dilution. The perceived risk of dilution may cause some stockholders to sell their shares or encourage short sales, which may contribute to a downward movement in the market price of our common stock.

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 Sativum 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 sale of shares offered by Sativum under this prospectus. However, we will receive the net sale price of any common stock we sell to Sativum under the terms of the common stock purchase agreement described in this prospectus. We intend to use the net proceeds from any sales to Sativum primarily for general corporate purposes. Our management will have significant flexibility and discretion in applying the net proceeds received by us. Pending any use, we will invest the net proceeds of any common stock sold to Sativum in short-term, investment grade, interest-bearing securities.

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
First Quarter 1999	$ 1.78	$1.16
Second Quarter 1999	$ 1.37	$0.53
Third Quarter 1999	$ 2.38	$0.69
Fourth Quarter 1999	$ 1.62	$1.00
First Quarter 2000	$20.00	$1.38
Second Quarter 2000	$ 8.06	$2.00
Third Quarter 2000	$11.67	$3.53
Fourth Quarter 2000	$ 6.75	$2.25
First Quarter 2001	$ 3.75	$1.72

There were approximately 287 record holders of our common stock as of April 25, 2001. On May 24, 2001, the reported last sale price on the Nasdaq National Market for our common stock was $3.60 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:

- 3,962,087 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) 622,469 shares of common stock issuable upon the exercise of warrants held by Millennium Partners, at an exercise price of $0.01 per share.

  c) 121,487 shares of common stock issuable upon the exercise of warrants held by Millennium Partners at a weighted average exercise price of $4.94 per share.

  d) 100,000 shares of common stock 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.

  e) 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.

- Millennium Partners, L.P.'s option to purchase a maximum of 461,894 shares of common stock for up to $2,000,000 on or prior to August 3, 2001 and receive a warrant to purchase additional shares upon exercise of that option.

- 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.

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.

	YEAR ENDED DECEMBER 31,					THREE MONTHS ENDED MARCH 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 DECEMBER 31,					AS OF 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	8,413
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.

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.

On August 3, 2000, we completed a $4 million common stock financing transaction with Millennium Partners, LP, or the Fund, an investment fund with more than a billion dollars in assets under management. We received $3 million of the purchase price at the closing and received the remaining $1 million upon effectiveness of a registration statement covering the shares purchased by the Fund. The Fund purchased our common stock at $4.33 per share. The Fund 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 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, 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 warrant has not been exercised with respect to those shares. 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 $10.05 per underlying share. If Millennium exercises all or part of its remaining $2 million option, it will receive additional callable warrants.

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.

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. We are limited with respect to how often we can exercise a drawdown and the amount of each drawdown. For more details on the equity line, see "Common Stock Purchase Agreement" elsewhere in this prospectus.

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.

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, such as sugars, amino acids, neurotransmitters and hormones, which are essential to life. When cells are damaged or destroyed, they no longer produce, metabolize or accurately regulate those substances. Impaired cellular function is associated with the progressive decline common to many degenerative diseases of the nervous system, such as Parkinson's disease, Alzheimer's disease and amyotrophic lateral sclerosis. Recent advances in medical science have identified cell loss or impaired cellular function as leading causes of degenerative diseases. Biotechnology advances have led to the identification of some of the specific substances or proteins that are deficient. While administering these substances or proteins as medication does overcome some of the limitations of traditional pharmaceuticals such as lack of specificity, there is no existing technology that can deliver them to the precise sites of action and in the appropriate physiological quantities or for the duration required to cure the degenerative condition. Cells, however, do this naturally. As a result, investigators have

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

THE POTENTIAL OF OUR STEM CELL-BASED THERAPY

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

Stem cells are rare and only available in limited supply, whether from the patients themselves or from donors. Cells obtained from the same person who will receive them may be abnormal if the patient is ill or the tissue is contaminated with disease-causing cells. Also, the cells can often be obtained only through significant surgical procedures. The challenge, therefore, has been three-fold:

1) to identify the stem cells;

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

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

We have developed and demonstrated a process, based on a proprietary IN VITRO culture system in chemically defined media, that reproducibly grows normal human central nervous system, or CNS, stem and progenitor cells. We believe this is the first reproducible process for growing normal human CNS stem cells. More recently, we have discovered markers on the cell surface that identify the human CNS stem cells. This allows us to purify them and eliminate other unwanted cell types. Together, these discoveries enable us to select normal human CNS stem cells and to expand them in culture to produce a large number of pure stem cells.

Because these cells have not been genetically modified, they may be especially suitable for transplantation and may provide a safer and more effective alternative to therapies that are based on cells derived from cancer cells, from cells modified by a cancer gene to make them grow, from an unpurified mixture of many different cell types, or from animal derived cells. We believe our proprietary stem cell technologies may enable therapies to replace specific cells that have been damaged or destroyed, permitting the restoration of function through the replacement of normal cells where this has not been possible in the past. In our research, we have shown that stem cells of the central nervous system transplanted into hosts are accepted, migrate, and successfully specialize to produce mature neurons and glial cells.

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

- tissue repair and replacement,

- correction of genetic disorders,

- drug discovery and screening,

- gene discovery and use, and

- diagnostics.

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

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

Our strategy is to be the first to identify, isolate and patent multiple types of human stem and progenitor cells with commercial importance. Our portfolio of issued patents includes a method of culturing normal human central nervous system stem and progenitor cells in our proprietary chemically defined medium, and our published studies show that these cultured and expanded cells give rise to all three major cell types of the central nervous system. Also, a separate study sponsored by us using these cultured stem and progenitor cells showed that the cells are accepted, migrate, and successfully specialize to produce neurons and glial cells.

More recently, we announced the results of a new study that showed that human central nervous system stem cells can be successfully isolated by markers present on the surface of freshly obtained brain cells. We believe this is the first reproducible process for isolating highly purified populations of well-characterized normal human central nervous system stem cells, and have applied for a composition of matter patent. Because the cells are highly purified and have not been genetically modified, they may be especially suitable for transplantation and may provide a safer and more effective alternative than therapies that are based on cells derived from cancer cells, or from cells modified by a cancer gene to make them grow, or from an unpurified mixture of many different cell types or cells derived from animals. We have also filed an improved process patent for the growth and expansion of these purified normal human central nervous system cells.

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

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

defective. Liver stem cells may be useful in the treatment of diseases such as hepatitis, cirrhosis of the liver and liver cancer.

EXPECTED ADVANTAGES OF OUR STEM CELL TECHNOLOGY

NO OTHER TREATMENT

To the best of our knowledge, no one has developed an FDA-approved method for replacing lost or damaged tissues from the human nervous system. Replacement of tissues in other areas of the human body is limited to those few sites, such as bone marrow or peripheral blood cell transplants, where transplantation of the patient's own cells is now feasible. In a few additional areas, including the liver, transplantation of donor organs is now used, but is limited by the scarcity of organs available through donation. We believe that our stem cell technologies have the potential to reestablish function in at least some of the patients who have suffered the losses referred to above.

REPLACED CELLS PROVIDE NORMAL FUNCTION

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

RESEARCH EFFORTS AND PRODUCT DEVELOPMENT PROGRAMS

OVERVIEW OF RESEARCH AND PRODUCT DEVELOPMENT STRATEGY

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

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

RESEARCH AND PRODUCT DEVELOPMENT PROGRAMS

PROGRAM DESCRIPTION AND OBJECTIVE	STAGE/STATUS(1)
HUMAN NEURAL STEM CELL	PRECLINICAL
Repair or replace damaged central nervous system tissue (including spinal cord, degenerated retinas and tissue affected by certain genetic disorders)	- Demonstrated IN VITRO the ability to initiate and expand stem cell-containing human neural cultures and specialization into three types of central nervous system cells - Demonstrated the ability of neurosphere-initiating stem cells from human brain - Demonstrated in rodent studies that transplanted human brain-derived stem cells are accepted and properly specialized into the three major cell types of the central nervous system
PANCREAS ISLET STEM CELL	RESEARCH
Repair or replace damaged pancreas islet tissue	- Identified markers on the surface of cells to identify, isolate and culture islet stem cells of the pancreas - Commenced small animal testing
LIVER STEM CELL	RESEARCH
Repair or replace damaged liver tissue including tissue resulting from certain metabolic genetic diseases	- Demonstrated the production of hepatocytes from purified mouse hematopoietic stem cells - Identified IN VITRO culture assay for growth of human bipotent liver progenitor cells that can produce both bile duct and hepatocytes - Showed that the in vitro culture of human bipotent liver cells can also grow human hepatitis virus

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

RESEARCH AND DEVELOPMENT PROGRAMS

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

BRAIN STEM AND PROGENITOR CELL RESEARCH AND DEVELOPMENT PROGRAM

We began our work with central nervous system stem and progenitor cell cultures in collaboration with NeuroSpheres, Ltd., in 1992. We believe that NeuroSpheres was the first to invent these cultures.

We are the exclusive, worldwide licensee from NeuroSpheres to such inventions and associated patents and patent applications for all uses, including transplantation in the human body, as embodied in these patents. See "License Agreements and Sponsored Research Agreements--NeuroSpheres, Ltd."

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

In 1998, we expanded our preclinical efforts in this area by initiating programs aimed at the discovery and use of specific monoclonal antibodies to facilitate identification and isolation of CNS and other stem and progenitor cells or their specialized progeny. Also in 1998, our researchers devised methods to advance the IN VITRO culture and passage of human CNS stem cells that resulted in a 100-fold increase in CNS stem and progenitor cell production after 6 passages. A U.S. patent on those methods has since been allowed. We are expanding our preclinical efforts toward the goal of selecting the proper indications to pursue.

In December 1998, we announced that the US Patent and Trademark Office had granted patent No. 5,851,832, covering our methods for the human CNS cell cultures containing central nervous system stem cells, for compositions of human CNS cells expanded by these methods, and for use of these cultures in human transplantation. These human CNS stem and progenitor cells expanded in culture may be useful for repairing or replacing damaged central nervous system tissue, including the brain and the spinal cord.

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

Also in 1999, we announced the filing of a US patent application covering our proprietary process for the direct isolation of normal human CNS stem cells based on the markers found to be present on the surface of freshly obtained brain cells. Since the filing of this patent application, our researchers have completed a study designed to identify, isolate and culture human CNS stem cells utilizing this proprietary process. In November 1999, we announced the study's first results: Our researchers, by using our proprietary markers on the surface of the cell, had succeeded in identifying, isolating and purifying human CNS stem cells from brain tissue, and were able to expand the number of these cells in culture.

We believe that this is the first study to show a reproducible process for isolating highly purified populations of well-characterized normal human CNS stem cells. Because the cells are normal human CNS stem cells and have not been genetically modified, they may be especially suitable for transplantation and may provide a safer and more effective alternative to therapies that are based on cells derived from cancer cells or from an unpurified mix of many different cell types, or from animal derived cells.

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

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

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

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

- it opens the way to a better understanding of the properties of these cells and how they might be manipulated to treat specific diseases. For example, in certain genetic diseases such as Tay Sachs and Gaucher's, a key metabolic enzyme required for normal development and function of the brain is absent. Brain-derived stem cell cultures might be genetically modified to produce those proteins. The modified brain stem cells could be transplanted into patients with these genetic diseases;

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

PANCREAS STEM CELLS DISCOVERY RESEARCH PROGRAMS

Our discovery program directed to the identification, isolation and culturing of the pancreas stem and progenitor cells has, to the present, been conducted by Nora Sarvetnick, Ph.D., of The Scripps Research Institute, in collaboration with some of our senior researchers. 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 identified by Dr. Sarvetnick and her research team as being unique to the pancreas islet stem cell for which we have now filed a US patent application. In collaboration with Dr. Sarvetnick, we continue to advance the discovery program directed at the identification, isolation and culturing of pancreas stem and progenitor cells utilizing this technology.

LIVER STEM CELLS DISCOVERY RESEARCH PROGRAMS

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

Approximately 1 in 10 Americans suffers from diseases and disorders of the liver for which there are currently no effective, long-term treatments. In 1998, our researchers continued to advance methods for establishing enriched cell populations suitable for transplantation in preclinical animal models. We are focused on discovering and utilizing our proprietary methods to identify, isolate and culture liver stem and progenitor cells and to evaluate these cells in preclinical animal models.

In 1999, our researchers devised a culture assay that we will use in our efforts to identify liver stem and progenitor cells. In addition to supporting the growth of an early human liver bipotent progenitor cell, it is also possible to infect this culture with human hepatitis virus, providing a valuable system for study of the virus. This technology could also provide a unique IN VITRO model for the testing of drugs that act on, or are metabolized by, human liver cells.

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

WIND-DOWN OF ENCAPSULATED CELL THERAPY RESEARCH AND DEVELOPMENT PROGRAMS

Until mid-1999, we engaged in research and development in encapsulated cell therapy technology, or ECT, including a pain control program funded by AstraZeneca Group plc. The results from the 85-patient double-blind, placebo-controlled trial of our encapsulated bovine cell implant for the treatment of severe, chronic pain in cancer patients did not, however, meet the criteria AstraZeneca had established for continuing trials for the therapy, and in June 1999, AstraZeneca terminated the collaboration.

Consequently, in July 1999, we announced plans for the restructuring of our research operations to abandon all further ECT research and to concentrate our resources on the research and development of our proprietary platform of stem cell technology. We reduced our workforce by approximately 68 full-time employees who had been focused on ECT programs, wound down our research and manufacturing operations in Lincoln, Rhode Island, and relocated our remaining research and development activities, and our corporate headquarters, to the facilities of our wholly owned subsidiary, StemCells California, Inc., in California. We have 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. These rights to royalties and other payments have now been transferred 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 StemCells, Inc. (now StemCells California, Inc.), a California corporation, in exchange for 1,320,691 shares of our common stock and options and warrants for the purchase of 259,296 common shares. Simultaneously with the acquisition, its President, Richard M. Rose, M.D., became our President, Chief Executive Officer and a director, and Irving L. Weissman, M.D., a founder of the California corporation, became a member of our board of directors. We, as the sole stockholder of our subsidiary, voted on February 23, 2000, to amend its Certificate of Incorporation to change its name to StemCells California, Inc.

CORPORATE 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. Modex, headquartered in Lausanne, Switzerland, was formed to integrate technologies developed by us and by several other institutions to develop products to treat diseases such as diabetes, obesity and anemia. After our disposition of the encapsulated cell technology in December 1999, we no longer had common research or development interests with Modex, but we held approximate 17% of its stock. Modex completed an initial public offering on June 23, 2000, in the course of which we realized a gain of approximately $1.4 million from the sale of certain shares. 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. We have also entered into license agreements with the California Institute of Technology. All of these agreements relate largely to stem or progenitor cells and or to processes and methods for the isolation, identification, expansion or culturing of stem or progenitor cells.

Our research agreement with Scripps expired 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. These license agreements also will terminate earlier if we breach without curing our obligations under the agreement or if we declare bankruptcy, and we can terminate the license agreements at any time upon notice. Upon the initiation of the Phase II trial for our first product using Scripps licensed technology, we must pay Scripps $50,000 and upon completion of that Phase II trial we must pay Scripps an additional $125,000. Upon approval of the first product for sale in the market, we must pay Scripps $250,000. Our license agreements with the California Institute of Technology will expire upon expiration, revocation, invalidation or abandonment of the patents licensed to us. We can terminate any of these license agreements by giving 30 days' notice to the California Institute of Technology. Either party can terminate these license agreements upon a material breach by the other party. We 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. We also will pay $5,000 on the anniversary of the issuance of the patent licensed to us under the relevant agreement. These amounts are creditable against royalties we must pay under the license agreements. The maximum royalties that we will have to pay to the California Institute of Technology will be $2 million per year, with an overall maximum of $15 million. Once we pay the $15 million maximum royalty, the licenses will become fully paid and irrevocable.

LICENSE AGREEMENTS

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

SIGNAL PHARMACEUTICALS, INC.

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

NEUROSPHERES, LTD.

In March 1994, we entered into a Contract Research and License Agreement with NeuroSpheres, Ltd., which was clarified in a License Agreement dated as of April 1, 1997. Under the agreement as clarified, we obtained an exclusive patent license from NeuroSpheres in the field of transplantation, subject to a limited right of NeuroSpheres to purchase a nonexclusive license from us, which right was not exercised and has expired. We have developed additional intellectual property relating to the subject matter of the license. We entered into an additional license agreement with NeuroSpheres as of October 30, 2000, under which we obtained an exclusive license in the field of non-transplant uses, such as drug discovery and drug testing, 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 by appropriate testing and banking representative vials of large-scale cultures. Commercial production is expected to involve expansion of banked cells and packaging them in appropriate containers after formulating the cells in an effective carrier. The carrier may also be used to improve the stability and acceptance of the stem cells or their progeny. Because of the early stage of our stem and progenitor cell programs, all of the issues that will affect manufacture of stem and progenitor cell products are not yet clear.

MARKETING

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

PATENTS, PROPRIETARY RIGHTS AND LICENSES

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

We have exclusive or non-exclusive rights to a portfolio of patents and patent applications related to various stem and progenitor cells and methods of deriving and using them. These patents and patent applications relate mainly to compositions of matter, methods of obtaining such cells, and methods for preparing, transplanting and utilizing such cells. Currently, our U.S. patent portfolio in the stem cell

therapy area includes 24 issued U.S. patents, eight of which issued in 2000. An additional 23 patent applications are pending, four of which have been allowed.

We own, or have filed, the following United States Patents and patent applications: U.S. Patent Number 5,968,829 (Human CNS neural stem cells); U.S. Patent Number 6,103,530 (Human CNS neural stem cells--culture media); Application Number WO 99/11758 (Cultures of human CNS neural stem cells); and 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); and Application Number WO 00/47762 (Enriched neural stem cell populations and methods of identifying, isolating, and enriching neural stem cells).

We have licensed the following United States Patents or pending patent applications from Neurospheres Holdings Ltd.: U.S. Patent Number 5,851,832 (IN VITRO proliferation); U.S. Patent Number 5,750,376 (IN VITRO genetic modification); U.S. Patent Number 5,981,165 (IN VITRO production of dopaminergic cells from mammalian central nervous system multipotent stem cell compositions); U.S. Patent Number 6,093,531 (Generation of hematopoietic cells from multipotent neural stem cells); U.S. Patent Number 5,980,885 (Methods for inducing IN VIVO proliferation of precursor cells); U.S. Patent Number 6,071,889 (Methods for IN VIVO transfer of a nucleic acid sequence to proliferating neural cells); U.S. Patent Number 6,165,783 (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); and Application Number WO 96/15266 (Regulation of neural stem cell proliferation).

We have licensed the following United States Patents or pending patent applications from the University of California, San Diego: U.S. Patent Number 5,776,948 (Method of production of neuroblasts); U.S. Patent Number 6,013,521 (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); and Application Number WO 00/52143 (Methods of enriching a population of uncultured cells).

We have licensed the following United States Patents or pending patent applications from the California Institute of Technology: U.S. Patent Number 5,629,159 (Immortalization and disimmortalization of cells); Application Number WO 96/40877 (Immortalization and disimmortalization of cells); U.S. Patent Number 5,935,811 (Neuron restrictive silencer factor proteins); Application Number WO 96/27665 (Neuron restrictive silencer factor proteins); U.S. Patent Number 5,589,376 (Mammalian neural crest stem cells); U.S. Patent Number 5,824,489 (Methods for isolating mammalian multipotent neural crest stem cells); Application Number WO 94/02593 (Mammalian neural crest stem cells); U.S. Patent Number 5,654,183 (Genetically engineered mammalian neural crest stem cells); U.S. Patent Number 5,928,947 (Mammalian multipotent neural

crest stem cells); U.S. Patent Number 5,693,482 (IN VITRO neural crest stem cell assay); U.S. Patent Number 6,001,654 (Methods for differentiating neural stem cells to neurons or smooth muscle cells (TGFb)); Application Number WO 98/48001 (Methods for differentiating neural stem cells to neurons or smooth muscle cells (TGFb)); U.S. Patent Number 5,672,499 (Methods for immortalizing multipotent neural crest stem cells); U.S. Patent Number 5,849,553 (Immortalizing and disimmortalizing multipotent neural crest stem cells); and U.S. Patent Number 6,033,906 (Differentiating mammalian neural stem cells to glial cells using neuregulins).

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

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

The patent positions of pharmaceutical and biotechnology companies, including us, are uncertain and involve complex and evolving legal and factual questions. The coverage sought in a patent application can be denied or significantly reduced before or after the patent is issued. Consequently, we do not know whether any of its pending applications will result in the issuance of patents, or if any existing or future patents will provide significant protection or commercial advantage or will be circumvented by others. Since patent applications are secret until patents are issued in the United States or until the applications are published in foreign countries, and since publication of discoveries in the scientific or patent literature often lags behind actual discoveries, we cannot be certain that it was the first to make the inventions covered by each of its pending patent applications or that it was the first to file patent applications for such inventions. There can be no assurance that patents will issue from our pending or future patent applications or, if issued, that such patents will be of commercial benefit to us, afford us adequate protection from competing products or not be challenged or declared invalid.

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

A number of pharmaceutical, biotechnology and other companies, universities and research institutions have filed patent applications or have been issued patents relating to cell therapy, stem cells and other technologies potentially relevant to or required by our expected products. We cannot predict which, if any, of such applications will issue as patents or the claims that might be allowed. We are aware that a number of companies have filed applications relating to stem cells. We are also aware of a number of patent applications and patents claiming use of genetically modified cells to treat disease, disorder or injury. We are aware of two patents issued to a competitor claiming certain methods for treating defective, diseased or damaged cells in the mammalian CNS by grafting genetically modified donor cells from the same mammalian species.

If third party patents or patent applications contain claims infringed by our technology and such claims or claims in issued patents are ultimately determined to be valid, there can be no assurance that we would be able to obtain licenses to these patents at a reasonable cost, if at all, or be able to develop or obtain alternative technology. If we are unable to obtain such licenses at a reasonable cost, it may

be adversely affected. There can be no assurance that we will not be obliged to defend itself in court against allegations of infringement of third party patents. Patent litigation is very expensive and could consume substantial resources and create significant uncertainties. An adverse outcome in such a suit could subject us to significant liabilities to third parties, require disputed rights to be licensed from third parties, or require us to cease using such technology.

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. Our licenses may be canceled or converted to non-exclusive licenses if we fail to use the relevant technology or we breach our agreements. Loss of such licenses could expose us to the risks of third party patents and/or technology. There can be no assurance that any of these licenses will provide effective protection against our competitors.

COMPETITION

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

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

We may also face competition from companies that have filed patent applications relating to the use of genetically modified cells to treat disease, disorder or injury. We may be required to seek licenses from these competitors in order to commercialize certain of our proposed products.

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

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

GOVERNMENT REGULATION

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

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

FDA APPROVAL

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

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

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

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

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

FDA MANUFACTURING REQUIREMENTS

Among the conditions for product licensure is the requirement that the prospective manufacturer's quality control and manufacturing procedures conform to the FDA's cGMP requirement. Even after product licensure approval, the manufacturer must comply with cGMP on a continuing basis, and what constitutes cGMP may change as the state of the art of manufacturing changes. Domestic manufacturing facilities are subject to regular FDA inspections for cGMP compliance which are normally held at least every two years. Foreign manufacturing facilities are subject to periodic FDA inspections or inspections by the foreign regulatory authorities with reciprocal inspection agreements with the FDA. Domestic manufacturing facilities may also be subject to inspection by foreign authorities.

ORPHAN DRUG ACT

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

PROPOSED FDA REGULATIONS

Proposed regulations of the FDA and other governmental agencies would place restrictions, including disclosure requirements, on researchers who have a financial interest in the outcome of their research. Under the proposed regulations, the FDA could also apply heightened scrutiny to, or exclude the results of, studies conducted by such researchers when reviewing applications to the FDA, which

contain such research. Certain of our collaborators have stock options or other equity interests in us that could subject such collaborators and us to the proposed regulations.

Our research and development is based on the use of human stem and progenitor cells. The FDA has published a "Proposed Approach to Regulation of Cellular and Tissue-Based Products" which relates to the use of human cells. We cannot now determine the effects of that approach or what regulatory actions might be taken from it. Restrictions exist on the testing or use of cells, whether human or non-human.

OTHER REGULATIONS

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

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

REIMBURSEMENT AND HEALTH CARE COST CONTROL

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

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

EMPLOYEES

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

PROPERTIES

Our current research laboratories and administrative offices are located in a leased 40,000 square foot facility, located in the Stanford Research Park in Palo Alto, California, which includes vivarium space as well as laboratories, offices, and a GMP (Good Manufacturing Practices) suite, signifying that the facility can be used to manufacture materials for clinical trials.

We continue to lease the following facilities in Lincoln, Rhode Island obtained in connection with our former encapsulated cell technology: our former research laboratory and corporate headquarters building which contains 65,000 square feet of wet labs, specialty research areas and administrative offices held on a fifteen-year lease agreement, as well as a 21,000 square-foot pilot manufacturing facility and a 3,000 square-foot cell processing facility financed by bonds issued by the Rhode Island Industrial Facilities Corporation. In February 2001, we subleased the 3,000 square foot facility and approximately one-third of the 65,000 square foot facility. We are actively seeking to sublease, assign or sell our remaining interests in these properties.

LEGAL PROCEEDINGS

We are not currently party to any legal actions.

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
Ronnda Bartel, Ph.D.	42	Vice President, Scientific Development

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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. 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 of the Board and Chief Executive Officer of Millennium Pharmaceuticals, Inc., a biotechnology company. Mr. Levin is also currently on the Board of Directors of 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. He also serves as President of the Merck Genome Research Institute, a position he has held since March 2000.

- - IRVING L. WEISSMAN, M.D., has served as a director since September 1997. He has been a consultant to us since September 1997. He is the Karel and Avice Beekhuis Professor of Cancer Biology, Professor of Pathology and Professor of Developmental Biology at Stanford University. Stanford has employed Dr. Weissman since July 1967, and he has been a Faculty member since January 1969. He has been a full professor of pathology since September 1987, and also of developmental biology since July 1989. Since October 1990, Dr. Weissman has also served as a professor of biology (by courtesy). He has been Chairman of the Stanford University Immunology Program since 1986. 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 a member of the National Academy of Sciences and also serves as Chairman of our Scientific Advisory Board. He also serves as Chief Executive Officer and a member of the Board of Managers of Celtrans, LLC.

- - 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.

- - RONNDA BARTEL, PH.D., joined us in July 1998, as Senior Director, Cell Development, and was appointed Vice President, Scientific Development in April 2000. From 1995 until her employment with us, Dr. Bartel was Senior Principal Scientist at Advanced Tissue Sciences Inc., responsible for research, development, and manufacturing of tissue engineered human cell based products. Dr. Bartel was awarded her Ph.D. degree in biochemistry from the University of Kansas, Lawrence and did postdoctoral work with Dr. John Voorhees at the University of Michigan, Ann Arbor.

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. 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 and a compensation and 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 and Dr. Perlmutter 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 is currently comprised of Mr. Levin and Dr. Schwartz.

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

		ANNUAL COMPENSATION		LONG TERM COMPENSATION	
NAME AND PRINCIPAL POSITION	YEAR	SALARY($)	BONUS($)	SECURITIES UNDERLYING OPTIONS(#)	ALL OTHER COMPENSATION
GEORGE W. DUNBAR, JR.	2000	186,538	50,000	36,031	--
Acting President and Chief Executive Officer(1)	1999			48,000	
RICHARD M. ROSE M.D.	2000	309,632	--	--	--
Chief Executive Officer(2)	1999	279,974	--	--	4,667(3)
	1998	286,553	--	150,000(4)	11,330(5)
ANN TSUKAMOTO, PH.D.	2000	159,054	--	--	4,783(6)
VP, Scientific Operations					
RONNDA BARTEL, PH.D.	2000	129,668	--	--	3,245(7)
VP, Scientific Development					

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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) 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	SECURITIES UNDERLYING OPTIONS GRANTED (# OF SHARES)	PERCENT OF TOTAL OPTIONS GRANTED TO EMPLOYEES IN 2000(1)	EXERCISE PRICE ($/SHARE)(2)	EXPIRATION DATE	POTENTIAL REALIZABLE VALUE AT ASSUMED ANNUAL RATES OF STOCK PRICE APPRECIATION FOR OPTION TERM 0%($)	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	SHARES ACQUIRED ON EXERCISE(#)	VALUE REALIZED($)	NUMBER OF SECURITIES UNDERLYING UNEXERCISED OPTIONS AT FISCAL YEAR-END EXERCISABLE	NUMBER OF SECURITIES UNDERLYING UNEXERCISED OPTIONS AT FISCAL YEAR-END UNEXERCISABLE	VALUE OF UNEXERCISED IN-THE-MONEY OPTIONS AT FISCAL YEAR-END($)(1) EXERCISABLE	VALUE OF UNEXERCISED IN-THE-MONEY OPTIONS AT FISCAL YEAR-END($)(1) 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

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(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.

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 will be 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 will be 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 may otherwise specifically provide, 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 will become effective as of May 31, 2001, provided that it is approved by the stockholders at our annual meeting.

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.

PRINCIPAL STOCKHOLDERS

The following table shows information regarding the beneficial ownership of our capital stock as of April 30, 2001 for:

- each person or group of affiliated persons known by us to own beneficially more than 5% of the outstanding shares of common stock and 6% cumulative convertible preferred stock;
- each director and named executive officer; and
- all directors and executive officers as a group.

The address for each listed director and officer is c/o StemCells, Inc., 3155 Porter Drive, Palo Alto, CA 94304.

We have determined beneficial ownership in the table in accordance with the rules of the Securities and Exchange Commission. 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 April 30, 2001, but we have not deemed these shares to be outstanding for computing the percentage ownership of any other person. To our knowledge, except as set forth in the footnotes below, each stockholder identified in the table possesses sole voting and investment power with respect to all shares of common stock and 6% cumulative convertible preferred stock shown as beneficially owned by that stockholder. Beneficial ownership percentage is based on 21,458,211 shares of our common stock and 1,500 shares of our 6% cumulative convertible preferred stock outstanding on March 31, 2001.

NAME OF BENEFICIAL OWNER(1)	SHARES OF COMMON STOCK BENEFICIALLY OWNED	PERCENTAGE OF CLASS OF COMMON STOCK BENEFICIALLY OWNED	SHARES OF PREFERRED STOCK BENEFICIALLY OWNED	PERCENTAGE OF CLASS OF PREFERRED STOCK BENEFICIALLY OWNED
Mark J. Levin	190,300(2)	*	750	50%
Martin M. McGlynn	--	--	--	--
Roger Perlmutter, M.D., Ph.D.	3,519(3)	*	--	--
John J. Schwartz, Ph.D.	194,917(4)	*	--	--
Irving Weissman, M.D.	133,685(5)	*	750	50%
All directors and executive officers as a group (7 persons)	653,749(6)	3.0%	1,500	100%
Millennium Partners, LP	2,883,462(7)	11.8%	--	--

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* Less than one percent.

(1) The address of all such persons, except Millenium Partners, LP, is c/o the Company, 3155 Porter Drive, Palo Alto, California 94304. The address of Millenium Partners, LP is 551 Fifth Avenue, New York, New York 10176.

(2) Includes 41,296 shares of common stock issuable upon exercise of stock options and a warrant to purchase 37,500 shares.

(3) All shares issuable upon exercise of stock options.

(4) Includes 194,917 shares issuable upon exercise of stock options.

(5) Includes 38,234 shares issuable upon exercise of stock options and 44,660 shares issuable upon exercise of warrants. Includes 50,791 shares owned by trusts for the benefit of Dr. Weissman's children as to which he disclaims beneficial ownership.

(6) Includes options to purchase 387,780 shares and warrants to purchase 185,129 shares.

(7) Includes 743,956 shares issuable upon the exercise of warrants. Includes 461,894 shares issuable upon exercise of an option granted on August 3, 2000 to purchase up to $2 million of our common stock based upon the minimum exercise price of the option and approximately 50,808 shares issuable upon the exercise of warrants issuable upon exercise of the option. Information on Millennium's beneficial ownership is based on a Schedule 13G filed by Millennium on February 27, 2001.

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 currently 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

As of March 31, 2001, we had outstanding warrants to purchase 918,956 shares of common stock at a weighted average exercise price of $1.75 per share, subject to customary antidilution adjustment. The 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 the warrant has not been exercised with respect to those shares.

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. Millennium has an option to purchase up to $2 million of our common stock on or prior to August 3, 2001. If it exercises all or part of this option, it will receive an additional callable warrant. 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. The 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 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.

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.

COMMON STOCK PURCHASE AGREEMENT

On May 10, 2001, we entered into a common stock purchase agreement with Sativum Investments Limited, a British Virgin Islands corporation, for the future issuance and purchase of shares of our common stock. This common stock purchase agreement establishes what is sometimes termed an equity line.

In general, under the equity line, Sativum has committed to provide us up to $30 million as we request it over a 30-month period in return for newly issued common stock. Once every 22 trading days on the Nasdaq National Market, we may request a drawdown. The amount we can draw down at each request must be at least $100,000. The maximum amount we can actually draw down for each request is also limited to 6% of the weighted average price of our common stock for the 60 calendar days prior to the date of our request multiplied by the total trading volume of our common stock for the 60 calendar days prior to our request. We are under no obligation to issue any shares to Sativum or to request a drawdown during any period.

Each 20-day trading period following a drawdown request is divided into two 10 trading day settlement periods. We are entitled to receive funds and must deliver shares to Sativum on the 12th day and the 22nd day following the delivery of a drawdown notice. Our requested drawdown amount will be reduced by 1/20 for each day during the 20 trading day period that the volume-weighted average stock price falls below a threshold price set by us or for each day on which trading of our shares on Nasdaq is suspended or the registration statement of which this prospectus forms a part is suspended. We then use the formulas in the common stock purchase agreement to determine the number of shares that we will issue to Sativum in return for the actual drawdown amount. The formulas for determining the actual drawdown amounts, the number of shares that we issue to Sativum and the price per share paid by Sativum are described in detail beginning on page 56. The aggregate total of all drawdowns under the equity line cannot exceed $30,000,000.

The price per share dollar amount that Sativum pays for our common stock for each drawdown includes a 6% discount to the average daily market price of our common stock for each day during the 20 day trading period after our drawdown request, weighted by trading volume during each such trading day. The actual drawdown amount will be reduced by a fee, equal to 3% of net proceeds, payable to the placement agent, Pacific Crest Securities, Inc., which introduced Sativum to us. Pacific Crest has agreed to contribute one-third of each of its drawdown fees to Granite Financial Group, Inc.

We are required to comply with Nasdaq's issuer designation requirements. One of those requirements prevents us from issuing, pursuant to the common stock purchase agreement, more than 3,922,606 shares, or 19.9% of our outstanding common stock on May 10, 2001 minus the shares underlying the warrants, unless and until we receive the approval of our stockholders. If necessary, we will seek stockholder approval at or prior to our 2002 or 2003 annual meeting of stockholders in case we opt to issue shares of common stock pursuant to the common stock purchase agreement in excess of that amount. Additionally, the common stock purchase agreement does not permit us to draw funds if the issuance of shares of common stock to Sativum pursuant to the drawdown would exceed 9.9% of our outstanding common stock held by Sativum on the drawdown exercise date. In such cases, we will not be permitted to issue the shares otherwise issuable pursuant to the drawdown that exceed that amount of shares, and Sativum will not be obligated to purchase those shares. Shares sold by Sativum

from time to time will reduce its beneficial ownership of our common stock and accordingly permit us to sell additional shares to Sativum under the common stock purchase agreement.

We are prohibited by the common stock purchase agreement from entering into any other stand-by equity based credit facilities during the term of the common stock purchase agreement. We are not prohibited, however, from entering into other equity or debt financing arrangements.

In connection with the common stock purchase agreement, we issued to Sativum at the initial closing a warrant certificate to purchase up to 250,000 shares of our common stock. The warrant expires on May 10, 2004. The exercise price of the warrant is $2.3805. Simultaneous with the issuance of the warrant to Sativum, we issued a warrant to Pacific Crest for the purchase of up to 75,000 shares of our common stock and to Granite Financial Group, Inc. for the purchase of up to 25,000 shares of our common stock, on the same terms as Sativum's warrant. The shares underlying these warrants are being registered by the registration statement of which this prospectus forms a part.

THE DRAWDOWN PROCEDURE AND THE STOCK PURCHASES

We may request a drawdown by faxing to Sativum a drawdown notice, stating the amount of the drawdown that we wish to exercise and the minimum threshold price at which we are willing to sell the shares.

DOLLAR AMOUNT OF THE DRAWDOWN

No drawdown can be less than $100,000 or more than 6% of the weighted average price of our common stock for the sixty calendar days prior to the date of our request, multiplied by the total trading volume of our common stock for the 60 calendar days prior to our request. A sample calculation of the maximum drawdown amount is described on page 57.

The actual dollar amount of the drawdown will be reduced by 1/20 for every day during the 20 trading days after our drawdown request that:

- the volume weighted average price is less than the minimum threshold price we designate;

- the common stock is suspended for more than three hours, in the aggregate, or if any trading day is shortened because of a public holiday; or

- if sales of previously drawn down shares pursuant to the registration statement of which this prospectus is a part are suspended by us because of certain potentially material events for more than three hours, in the aggregate.

If any of the above three conditions is met for one or more trading days during the 20 trading day period, the actual dollar amount of our drawdown will be lower than we requested in our notice. The volume weighted average price of any trading day during a pricing period that meets any of the conditions above will have no effect on the pricing of the shares purchased with respect to the other days during that pricing period.

NUMBER OF SHARES

The volume-weighted average price of our shares on each of the 20 trading days immediately following the drawdown notice, except for days excluded in any of the three bullets above, is used to determine the number of shares that we will issue in return for the money provided by Sativum. We will not know the number of shares we will be issuing in a drawdown at the time of delivery of our drawdown notice. If our stock price falls during the 20 trading days after the notice, the number of shares will proportionately rise, except that we will not be required to issue shares below the threshold price that we will have set in the notice.

The number of shares of common stock that we will issue with respect to each trading day during a drawdown will be determined by the following formula:

- 1/20th of the dollar amount contained in our drawdown notice divided by

- 94% of the volume-weighted average price of our common stock for that day.

The 94% reflects Sativum's 6% discount. The sum of these 20 daily calculations produces the number of common shares that we will issue, unless trading one or more days is excluded as explained above, in which case that day is ignored in the calculation.

SAMPLE CALCULATION OF STOCK PURCHASES

The following is an example of the calculation of a single drawdown and the number of shares we would issue to Sativum in connection with that drawdown based on the assumptions noted in the discussion below.

SAMPLE MAXIMUM DRAWDOWN AMOUNT CALCULATION

For purposes of this example, suppose that we provide a drawdown notice to Sativum, and that we set the threshold price at $1.90 per share based on the volume weighted average price before applying the 6% discount. Suppose further that the total trading volume for the 60 calendar days prior to our drawdown notice is 5,335,700 shares and that the average of the volume-weighted average daily prices of our common stock for the 60 calendar days prior to the notice is $2.18. Using these hypothetical numbers, which by way of example only are the actual volume and price numbers for our common stock for the 60 calendar days ended May 18, 2001, the maximum amount of the drawdown is as follows:

- the total trading volume for the 60 calendar days prior to our drawdown notice, 5,335,700, multiplied by

- the average of the volume-weighted average daily prices of our common stock for the 60 calendar days prior to the drawdown notice, $2.18, multiplied by

- 6%

equals $697,910.

The maximum amount we can request in a drawdown notice under the formula and using these hypothetical numbers, is therefore capped at $697,910.

SAMPLE CALCULATION OF NUMBER OF SHARES

Assuming we requested the maximum drawdown amount reflected by the hypothetical numbers above, and assuming that the volume-weighted average daily prices for our common stock for the twenty trading days following our drawdown notice as set forth in the table below, the number of shares to be issued based on any trading day during the drawdown period can be calculated as follows:

- 1/20 of the requested drawdown amount of $697,910 divided by

- 94% of the volume-weighted average daily price.

For example, for the fourth trading day in the example in the table below, the calculation is as follows: 1/20 of $697,910 is $34,895. Divide $34,895 by 94% of the volume-weighted average daily price for that day of $1.90 per share, to get 19,538 shares. Perform this share calculation for each of the 20 measuring days during the drawdown period, excluding any days on which the volume-weighted average daily price is below the $1.90 threshold price, or on which trading of our common stock or the

effectiveness of the registration statement of which this prospectus forms a part is suspended. Add the results to determine the number of shares to be issued.

After excluding the first three days of the period because they are below the threshold price, the actual dollar amount of our drawdown in this example would be $593,223, $244,268 of which would be settled on day 12 for the first settlement period, and $348,955 of which would be settled on day 22 for the second settlement period. The total number of shares that we would issue to Sativum for this drawdown request would be 264,445 shares, so long as those shares, together with all other shares held by Sativum, do not exceed 9.9% of our then outstanding common stock. Of these total shares issued with respect to this hypothetical drawdown, 128,612 shares would be issued on day 12 for the first settlement period and 135,833 shares would be issued on day 22 for the second settlement period. Sativum would pay an average of $2.24 per share for these shares.

HYPOTHETICAL DRAWDOWN PRICING PERIOD(1)

TRADING DAY	VOLUME WEIGHTED AVERAGE PRICE (VWAP)	94% OF VWAP	DAILY INVESTMENT AMOUNT	NUMBER OF SHARES SOLD
1	$1.87	$1.76	(2)	(2)
2	$1.84	$1.73	(2)	(2)
3	$1.82	$1.71	(2)	(2)
4	$1.90	$1.79	$34,895	19,538
5	$1.92	$1.81	$34,895	19,316
6	$1.94	$1.83	$34,895	19,114
7	$1.94	$1.82	$34,895	19,136
8	$2.11	$1.99	$34,895	17,567
9	$2.11	$1.98	$34,895	17,624
10	$2.28	$2.14	$34,895	16,317
11	$2.31	$2.17	$34,895	16,046
12	$2.42	$2.27	$34,895	15,352
13	$2.96	$2.78	$34,895	12,551
14	$2.77	$2.60	$34,895	13,399
15	$2.64	$2.48	$34,895	14,075
16	$2.52	$2.37	$34,895	14,735
17	$2.91	$2.73	$34,895	12,762
18	$2.87	$2.69	$34,895	12,948
19	$3.02	$2.84	$34,895	12,298
20	$3.18	$2.99	$34,895	11,667
Total			$593,223	264,445

(1) We have used the volume-weighted average share prices of our common stock during the twenty trading days ended May 18, 2001 for illustrative purposes only. Our use of these numbers should not be interpreted as a forecast of share prices, an indicator of the prices at which we may choose to utilize the equity line or the expected or historical volatility of our common stock, whether during or outside a drawdown period. Due to rounding, division of the figures in the above table may not exactly equal the shares presented.

(2) Excluded because the volume-weighted average daily price is below the threshold specified in our hypothetical drawdown notice.

We would receive the amount of our adjusted drawdown, $593,223, less an aggregate 3% cash fee paid to the placement agent, Pacific Crest, of $17,797, for net proceeds to us of approximately $575,426. Pacific Crest would contribute one-third, or $5,932, of this hypothetical placement fee to

Granite. The delivery of the requisite number of shares and payment of the drawdown will take place electronically and, if we choose, through an escrow agent, Epstein, Becker & Green, P.C. of New York.

NECESSARY CONDITIONS BEFORE SATIVUM IS OBLIGATED TO PURCHASE OUR SHARES

The following conditions must be satisfied before Sativum is obligated to purchase any common shares following a drawdown request:

- a registration statement for the resale of the shares by Sativum must be declared effective by the Securities and Exchange Commission and must remain effective and available as of the drawdown settlement date;

- trading in our common shares must not have been suspended by the Securities and Exchange Commission or the Nasdaq National Market, nor shall minimum prices have been established on securities whose trades are reported on the Nasdaq National Market;

- we must not have merged or consolidated with or into another company or transferred all or substantially all of our assets to another company, unless the acquiring company has agreed to honor the common stock purchase agreement;

- no statute, rule, regulation, executive order, decree, ruling or injunction may be in effect which prohibits consummation of the transactions contemplated by the common stock purchase agreement; and

- no event which is materially adverse to our business, operations, properties or financial condition shall have occurred.

A further condition is that we may not issue more than 19.9% of our common shares issued and outstanding on May 10, 2001 pursuant to the common stock purchase agreement on the associated warrants, without our first obtaining approval from our stockholders for the excess issuance. In addition, the common stock purchase agreement provides that Sativum is not permitted to purchase shares of our common stock pursuant to a drawdown to the extent that the purchase of those shares would result in Sativum's beneficially owning more than 9.9% of our common stock following the purchase. Accordingly, each drawdown will be limited to an amount that will cause Sativum's beneficial ownership as of the date of the purchase to exceed 9.9%. However, shares sold by Sativum from time to time will reduce its beneficial ownership of our common stock and accordingly permit us to sell additional shares to Sativum under the common stock purchase agreement.

COSTS OF CLOSING THE TRANSACTION

At the initial closing of the transaction on May 10, 2001, we paid $25,000 to cover the fees and expenses of Sativum's counsel. We owe Sativum an additional $25,000 prior to June 23, 2001 to cover additional non-accountable fees and expenses. Pacific Crest Securities, Inc. also received a $25,000 placement fee. Pacific Crest is not obligated to purchase any of our shares pursuant to the common stock purchase agreement.

LIQUIDATED DAMAGES

We will be required to pay liquidated damages to Sativum if we fail to deliver shares within 5 trading days after a settlement date. We will also be required to pay liquidated damages to Sativum if the effectiveness of this registration statement is suspended during, or within 5 days after, a drawdown pricing period. In the latter case, we will be required to compensate Sativum for any net decline in the price of our shares greater than 20% following the suspension to the extent Sativum sold shares at the reduced price within 5 days after the end of the suspension period.

TERMINATION OF THE COMMON STOCK PURCHASE AGREEMENT

The equity line established by the common stock purchase agreement will terminate 30 months from the effective date of the registration statement of which this prospectus forms a part. The equity line shall also terminate if we file for protection from creditors, if our common stock is delisted from The Nasdaq National Market and not promptly relisted on Nasdaq, Nasdaq SmallCap Market, the American Stock Exchange or the New York Stock Exchange. We may terminate the agreement if Sativum fails to perform its obligations to purchase shares with respect to a drawdown.

INDEMNIFICATION OF SATIVUM AND PACIFIC CREST

Sativum is entitled to customary indemnification from us for any losses or liabilities suffered by it as a result of material misstatements or omissions from the common stock purchase agreement, registration statement and this prospectus as supplemented from time to time, except as they relate to information supplied by Sativum to us for inclusion in the registration statement and prospectus. Pacific Crest is also entitled to customary indemnification from us from any losses or liabilities suffered by it in connection with its role as placement agent.

SELLING STOCKHOLDERS

OVERVIEW

Shares of our common stock registered for resale under this prospectus constitute 48.2% of our issued and outstanding common shares as of March 31, 2001. However, the common stock purchase agreement provides that we may not sell more than 4,272,606 shares of common stock, or 19.9% of our issued and outstanding common stock as of May 10, 2001, the date of the common stock purchase agreement, unless and until we receive the approval of our stockholders as required pursuant to Nasdaq's issuer designation requirements. The number of shares we are registering is based in part on our good faith estimate of the maximum number of shares we may issue to Sativum under the common stock purchase agreement. We are under no obligation to issue any shares to Sativum under the common stock purchase agreement. Accordingly, the number of shares we are registering for issuance under the common stock purchase agreement may be higher than the number we actually issue under the common stock purchase agreement.

SATIVUM INVESTMENTS LIMITED

Sativum Investments Limited is engaged in the business of investing in publicly traded equity securities for its own account. Sativum's principal offices are located at Harbour House, 2nd Floor, Road Town, Tortolla, British Virgin Islands. Investment decisions for Sativum are made by its board of directors. Sativum has informed us that it does not currently own any of our securities as of the date of this prospectus. Other than its obligation to purchase common shares under the common stock purchase agreement, it has no other commitments or arrangements to purchase or sell any of our securities. Sativum is prohibited by the common stock purchase agreement from engaging in short sales of our common stock, as defined in applicable securities regulations. There are no business relationships between Sativum and us other than as contemplated by the common stock purchase agreement.

PACIFIC CREST SECURITIES, INC. AND GRANITE FINANCIAL GROUP, INC.

Pacific Crest Securities, Inc., a registered broker-dealer, has acted as placement agent in connection with the equity line. Pacific Crest introduced us to Sativum and assisted us with structuring the equity line with Sativum. Pacific Crest's duties as placement agent were undertaken on a reasonable best efforts basis only. It made no commitment to purchase shares from us and did not ensure us of the successful placement of any securities.

Other than the warrant to purchase 75,000 shares of common stock granted to Pacific Crest as a placement fee, Pacific Crest has informed us that it does not currently own any of our securities. Other than the warrant to purchase 25,000 shares of common stock, Granite Financial Group, Inc., also a placement agent and a registered broker-dealer, has informed us that it does not currently own any of our securities.

Sativum, Pacific Crest and Granite have not held any positions as officers or had material relationships with us or any of our affiliates within the past three years other than as a result of the ownership of our common stock. If, in the future, any of their relationships with us changes, we will amend or supplement this prospectus to update this disclosure.

PLAN OF DISTRIBUTION

GENERAL

Sativum Investments, Limited, is offering the common shares for its account as statutory underwriter, and not for our account. We will not receive any proceeds from the sale of common shares by Sativum. Sativum may be offering for sale up to 10,000,000 common shares pursuant to this prospectus which it may acquire pursuant to the terms of the stock purchase agreement more fully described under the section of this prospectus entitled "The Common Stock Purchase Agreement." Sativum is a statutory underwriter within the meaning of the Securities Act of 1933 in connection with such sales of common shares and will be acting as an underwriter in its resales of the common shares under this prospectus. Sativum has, prior to any sales, agreed not to effect any offers or sales of the common shares in any manner other than as specified in the prospectus and not to purchase or induce others to purchase common shares in violation of any applicable state and federal securities laws, rules and regulations and the rules and regulations of The Nasdaq National Market. Sativum has agreed not to engage in short sales of our common stock, as defined in applicable securities regulations, during the term of the common stock purchase agreement. We will pay the costs of registering the shares under this prospectus, including legal fees.

To permit Sativum to resell the shares of common stock issued to it under the stock purchase agreement, we agreed to register those shares and to maintain that registration. To that end, we have agreed with Sativum that we will prepare and file such amendments and supplements to the registration statement and the prospectus as may be necessary in accordance with the Securities Act and the rules and regulations promulgated thereunder, to keep it effective so long as any of the shares are "registrable securities," as defined in our registration rights agreement with Sativum. Registrable securities include all shares sold to Sativum pursuant to the common stock purchase agreement that:

- have not been sold pursuant to the registration statement of which this prospectus forms a part;

- have not been sold pursuant to Rule 144 under the Securities Act;

- have not been otherwise transferred to persons who may trade the shares without restriction under the Securities Act, as evidenced by share certificates not bearing a restrictive legend; or

- may not be sold, in the opinion of our counsel, without restriction under the Securities Act.

Shares of common stock offered through this prospectus may be sold from time to time by Sativum. Shares of common stock issuable upon exercise of the warrants issued as of the date of the common stock purchase agreement to Sativum, Pacific Crest Securities, Inc. and Granite Financial Group, Inc. or their transferees, may also be sold through this prospectus. We will supplement this prospectus to disclose the names of any transferees of warrant shares that intend to offer common stock through this prospectus.

Sales may be made on the Nasdaq National Market, on 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 negotiated private transactions, or in a combination of these methods. Sativum will act independently of us in making decisions with respect to the form, timing, manner and size of each sale. We have been informed by Sativum and Pacific Crest that there are no existing arrangements between either of them and any stockholder, broker, dealer, underwriter or agent relating to the distribution of this prospectus. Sativum is an underwriter in connection with resales of its shares.

The common shares may be sold in one or more of the following manners:

- 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 for its account under this prospectus; or

- ordinary brokerage transactions and transactions in which the broker solicits purchases.

In effecting sales, brokers or dealers engaged by Sativum, Pacific Crest or Granite may arrange for other brokers or dealers to participate. Except as disclosed in a supplement to this prospectus, no broker-dealer will be paid more than a customary brokerage commission in connection with any sale of the shares of common stock by Sativum, Pacific Crest or Granite. Brokers or dealers may receive commissions, discounts or other concessions from the selling stockholders in amounts to be negotiated immediately prior to the sale. The compensation to a particular broker-dealer may be in excess of customary commissions. Profits on any resale of the shares of common stock as a principal by such broker-dealers and any commissions received by such broker-dealers may be deemed to be underwriting discounts and commissions under the Securities Act. Any broker-dealer participating in such transactions as agent may receive commissions from Sativum, Pacific Crest and Granite, if they act as agent for the purchaser of such shares of common stock, from such purchaser.

Broker-dealers who acquire common shares as principal may thereafter resell such shares of common stock from time to time in transactions, which may involve crosses and block transactions and which may involve sales to and through other broker-dealers, including transactions of the nature described above, in the over-the-counter market, in negotiated transactions or otherwise at market prices prevailing at the time of sale or at negotiated prices, and in connection with such resales may pay to or receive from the purchasers of such shares of common stock commissions computed as described above. Brokers or dealers who acquire common shares as principal and any other participating brokers or dealers may be deemed to be underwriters in connection with resales of the shares of common stock.

In addition, any shares of common stock covered by this prospectus which qualify for sale pursuant to Rule 144 may be sold under Rule 144 rather than pursuant to this prospectus. However, since Sativum is an underwriter, Rule 144 of the Securities Act is not available to Sativum to sell its shares. We will not receive any of the proceeds from the sale of these shares of common stock, although we have paid the expenses of preparing this prospectus and the related registration statement of which it is a part and are required to reimburse Sativum $50,000 for its legal and administrative costs.

Sativum, Pacific Crest and Granite are subject to the applicable provisions of the Exchange Act, including without limitation Rule 10b-5 thereunder. Under applicable rules and regulations under the Exchange Act, any person engaged in a distribution of the shares of common stock may not simultaneously purchase such securities for a period beginning when such person becomes a distribution participant and ending upon such person's completion of participation in a distribution. In addition, in connection with the transactions in the shares of common stock, Sativum, Pacific Crest and Granite will be subject to applicable provisions of the Exchange Act and the rules and regulations under that Act, including, without limitation, the rules set forth above. These restrictions may affect the marketability of the shares of common stock.

Sativum, Pacific Crest and Granite will pay all commissions and its own expenses, if any, associated with the sale of the shares of common stock, other than the expenses associated with preparing this prospectus and the registration statement of which it is a part.

UNDERWRITING COMPENSATION AND EXPENSES

The underwriting compensation for Sativum will depend on the amount of financing that we are able to obtain under the stock purchase agreement, up to a maximum of $1,914,894 if we are able to obtain the entire $30,000,000 in financing. Sativum will purchase shares under the stock purchase agreement at a price equal to 94% of the volume-weighted average daily price of our common stock reported on the Nasdaq National Market for each day in the pricing period with respect to each drawdown request.

At the time of the initial closing under the common stock purchase agreement, we also issued to Sativum a warrant to purchase 250,000 shares of our common stock at an exercise price of $2.38 per share. The warrant expires May 10, 2004.

In addition, we are obligated to pay Pacific Crest, as compensation for its services as Sativum's placement agent, a cash fee equal to 3% of the net proceeds received from Sativum under the common stock purchase agreement for draw downs under the equity line. The compensation to Pacific Crest will depend on the amount of financing that we obtain under the common stock purchase agreement, up to a maximum of $900,000 if we obtain the entire $30,000,000 in financing. Pacific Crest has agreed to contribute one-third of all drawdown fees to Granite Financial Group, Inc. We also issued to Pacific Crest a warrant to purchase 75,000 shares of our common stock and to Granite a warrant to purchase 25,000 shares of our common stock. Each warrant has an exercise price of $2.38 per share and expires May 10, 2004.

LIMITED GRANT OF REGISTRATION RIGHTS

We granted registration rights to Sativum to enable it to sell the common stock it purchases under the common stock purchase agreement. In connection with any such registration, we will have no obligation:

- to assist or cooperate with Sativum in the offering or disposition of such shares;

- to indemnify or hold harmless the holders of any such shares, other than Sativum, or any underwriter designated by such holders;

- to obtain a commitment from an underwriter relative to the sale of any such shares; or

- to include such shares within any underwritten offering we do.

We will assume no obligation or responsibility whatsoever to determine a method of disposition for such shares or to otherwise include such shares within the confines of any registered offering other than the registration statement of which this prospectus is a part.

We will use commercially reasonable efforts to file, during any period during which we are required to do so under our registration rights agreement with Sativum, one or more post-effective amendments to the registration statement of which this prospectus is a part to describe any material information with respect to the plan of distribution not previously disclosed in this prospectus or any material change to such information in this prospectus. This obligation may include, to the extent required under the Securities Act of 1933, that a supplemental prospectus be filed, disclosing

- the name of any broker-dealers;

- the number of common shares involved;

- the price at which the common shares are to be sold;

- the commissions paid or discounts or concessions allowed to broker-dealers, where applicable;

- that broker-dealers did not conduct any investigation to verify the information set out or incorporated by reference in this prospectus, as supplemented; and

- any other facts material to the transaction.

Our registration rights agreement with Sativum permits us to restrict the resale of the shares Sativum has purchased from us under the common stock purchase agreement for a period of time sufficient to permit us to amend or supplement this prospectus to include material information. If we restrict Sativum during any pricing period or the five consecutive business days after a pricing period and our stock price declines during the restricted period, we are required to pay to Sativum cash to compensate Sativum for its inability to sell shares during the restricted period. The amount we would be required to pay would be the difference between the average daily volume weighed average price of the common stock during the pricing period and the price at which the shares were eventually sold, provided the sales are made within 5 business days of the end of the restricted period and the difference in price is greater than 20% of the average purchase price paid by Sativum during the relevant pricing period.

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-1 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.

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 COMMON STOCK		COMMON STOCK		ADDITIONAL PAID-IN CAPITAL	ACCUMULATED DEFICIT	ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)
	SHARES	AMOUNT	SHARES	AMOUNT			
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)

	DEFERRED COMPENSATION	TOTAL STOCKHOLDERS' 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	ACCUMULATED	ACCUMULATED OTHER COMPREHENSIVE
	SHARES	AMOUNT	SHARES	AMOUNT	CAPITAL	DEFICIT	INCOME (LOSS)
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)	--

	DEFERRED COMPENSATION	TOTAL STOCKHOLDERS' 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 DEFICIT	ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)	DEFERRED COMPENSATION	TOTAL STOCKHOLDERS' 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.

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

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

(2) Facilities carrying costs include 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	DECEMBER 31, 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	DECEMBER 31, 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	
	OPTIONS	WEIGHTED AVERAGE EXERCISE PRICE	OPTIONS	WEIGHTED AVERAGE EXERCISE PRICE	OPTIONS	WEIGHTED AVERAGE 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	
RANGE OF EXERCISE PRICES	NUMBER OUTSTANDING	WEIGHTED AVERAGE REMAINING CONTRACTUAL LIFE (YRS.)	WEIGHTED AVERAGE EXERCISE PRICE	NUMBER EXERCISABLE	WEIGHTED AVERAGE EXERCISE PRICE
Less than $5.00	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)

STEMCELLS, INC.

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)

MARCH 31, 2001 AND 2000

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	$ 7,979
Printing and engraving expenses	$ *
Legal fees and expenses	$ *
Accounting fees and expenses	$ *
Blue sky fees and expenses	$ *
Transfer agent and registrar fees	$ *
Miscellaneous	$ *
Total	$ *

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* To be supplied in an amendment.

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) and (c) 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 (b) 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 the warrant has not been exercised with respect to those shares. 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.

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.

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

(c) 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.

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.

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

NUMBER	DESCRIPTION
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.
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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.

NUMBER	DESCRIPTION
10.46**	License Agreement dated as of June 1999 between The Scripps Research Institute and the Registrant.
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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.
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.

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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. 333-91228.

* 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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ITEM 17. UNDERTAKINGS.

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.

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.

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 25th day of May, 2001.

STEMCELLS, INC.

BY: /S/ MARTIN M. MCGLYNN

Martin M. McGlynn
Chief Executive Officer

POWER OF ATTORNEY

Pursuant to the requirement of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated. Each person whose signature appears below hereby constitutes and appoints Iris Brest, George Koshy and Martin M. McGlynn, each with full power of substitution, his true and lawful attorney-in-fact and agent with full power to him 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.

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 May 25, 2001.

SIGNATURE	TITLE
/s/ MARTIN M. MCGLYNN	Martin M. McGlynn, President, Chief Executive Officer (Principal Executive Officer), Director
/s/ GEORGE KOSHY	George Koshy, Controller and Acting Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)
/s/ MARK J. LEVIN	Mark J. Levin, Director
/s/ ROGER M. PERLMUTTER	Roger M. Perlmutter, M.D., Ph.D., Director
/s/ JOHN J. SCHWARTZ	John J. Schwartz, Ph. D., Director
/s/ IRVING WEISSMAN	Irving Weissman, M.D., Director

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Exhibit 4.10

REGISTRATION RIGHTS AGREEMENT

THIS REGISTRATION RIGHTS AGREEMENT, dated as of May 10, 2001 between Sativum Investments Limited ("Purchaser") and StemCells, Inc. (the "Company").

WHEREAS, simultaneously with the execution and delivery of this Agreement, the parties shall enter into the Common Stock Purchase Agreement, dated as of the date hereof, (the "Purchase Agreement") pursuant to which the Purchaser has committed to purchase up to $30,000,000 of the Company's Common Stock (terms not defined herein shall have the meanings ascribed to them in the Purchase Agreement) and the Warrant; and

WHEREAS, the execution and delivery of this Agreement and granting to the Purchaser of the registration rights set forth herein with respect to the Shares is a component part of the transaction contemplated under the Purchase Agreement.

NOW, THEREFORE, the parties hereto mutually agree as follows:

Section 1. REGISTRABLE SECURITIES. As used herein the term "Registrable Security" means all Shares that (i) have not been sold under the Registration Statement, (ii) have not been sold under circumstances under which all of the applicable conditions of Rule 144 (or any similar provision then in force) under the Securities Act ("Rule 144") are met, (iii) have not been otherwise transferred to persons who may trade such Shares without restriction under the Securities Act, and the Company has delivered a new certificate or other evidence of ownership for such Shares not bearing a restrictive legend, or (iv) may not be sold without any time, volume or manner limitations pursuant to Rule 144(k) (or any similar provision then in effect) in the opinion of counsel to the Company under the Securities Act. In the event of any merger, reorganization, consolidation, recapitalization or other change in corporate structure affecting the Common Stock, such adjustment shall be deemed to be made in the definition of "Registrable Security" as is appropriate in order to prevent any dilution or enlargement of the rights granted pursuant to this Agreement.

Section 2. RESTRICTIONS ON TRANSFER. The Purchaser acknowledges and understands that in the absence of an effective Registration Statement authorizing the resale of the Shares as provided herein, the Shares are "restricted securities" as defined in Rule 144. The Purchaser understands that no disposition or transfer of the Shares may be made by Purchaser in the absence of (i) an opinion of counsel to the Purchaser, in form and substance reasonably satisfactory to the Company, that such transfer may be made without registration under the Securities Act or (ii) such registration.

With a view to making available to the Purchaser the benefits of Rule 144, the Company agrees to:

(a) to comply with the provisions of paragraph (c)(1) of Rule 144; and

(b) to file with the Commission in a timely manner all reports and other documents required to be filed by the Company pursuant to Section 13 or 15(d) under the Exchange Act; and, if at any time it is not required to file such reports but in the past had been required to or did file such reports, it will, upon the request of the Purchaser, make available other information as required by, and so long as necessary to permit sales of, its Registrable Securities pursuant to Rule 144.

Section 3. REGISTRATION RIGHTS WITH RESPECT TO THE SHARES.

(a) The Company agrees that it will prepare and file with the Securities and Exchange Commission ("Commission"), within forty-five (45) days (plus an additional number of days equal to the period during which Purchaser's counsel reviews the Registration Statement pursuant to Section 3(e) herein) after the Initial Closing, a registration statement (on Form S-1, Form S-3 and/or SB-2, or other appropriate form of registration statement) under the Securities Act (the "Registration Statement"), at the sole expense of the Company (except as provided in Section 3(d) hereof), so as to permit a public offering and resale of the Shares under the Securities Act by Purchaser.

(b) The Company shall use commercially reasonably efforts to cause the Registration Statement to become effective within the earlier of (i) one hundred twenty (120) days of the date of filing the Registration Statement, or (ii) five (5) days after receiving written notice of SEC clearance and will within said five (5) days request acceleration of effectiveness. The Company will notify Purchaser of the effectiveness of the Registration Statement within one Trading Day of such event.

(c) The Company will maintain the Registration Statement or post-effective amendment filed under this Section 3 hereof effective under the Securities Act from the Effective Date until no Shares are Registrable Securities (the "Effectiveness Period").

(d) All fees, disbursements and out-of-pocket expenses and costs incurred by the Company in connection with the preparation and filing of the Registration Statement under subparagraph 3(a) and in complying with applicable securities and Blue Sky laws (including, without limitation, all attorneys' fees of the Company) shall be borne by the Company. The Purchaser shall bear the cost of underwriting and/or brokerage discounts, fees and commissions, if any, applicable to the Shares being registered and the fees and expenses of its counsel.

(e) The Purchaser and its counsel shall have a reasonable period, not to exceed five (5) Trading Days, to review the proposed Registration Statement or any amendment thereto, prior to filing with the Commission, and the Company shall provide the Purchaser with copies of any comment letters received from the Commission with respect thereto within two (2) Trading Days of receipt thereof.

(f) The Company shall make reasonably available for inspection by Purchaser, any underwriter participating in any disposition pursuant to the Registration

Statement, and any attorney, accountant or other agent retained by the Purchaser or any such underwriter all relevant financial and other records, pertinent corporate documents and properties of the Company and its subsidiaries, and cause the Company's officers, directors and employees to supply all information reasonably requested by the Purchaser or any such underwriter, attorney, accountant or agent in connection with the Registration Statement, in each case, as is customary for similar due diligence examinations; PROVIDED, HOWEVER, that all records, information and documents that are confidential, proprietary or that contain any material non-public information shall be kept confidential by the Purchaser and any such underwriter, attorney, accountant or agent, unless such disclosure is made pursuant to judicial process in a court proceeding (after first giving the Company an opportunity promptly to seek a protective order or otherwise limit the scope of the information sought to be disclosed) or is required by law, or such records, information or documents become available to the public generally or through a third party not in violation of an accompanying obligation of confidentiality. If the foregoing inspection and information gathering would otherwise disrupt the Company's conduct of its business, such inspection and information gathering shall, to the maximum extent possible, be coordinated on behalf of the Purchaser and the other parties entitled thereto by one firm of counsel designed by and on behalf of the majority in interest of Purchaser and other parties.

(g) The Company shall qualify any of the Shares for sale in such states as the Purchaser reasonably designates and shall furnish indemnification in the manner provided in Section 6 hereof. However, the Company shall not be required to qualify in any state which will require an escrow or other restriction relating to the Company and/or the sellers, or which will require the Company to qualify to do business in such state or require the Company to file therein any general consent to service of process.

(h) The Company at its expense will supply the Purchaser with copies of the Registration Statement and the final prospectus included therein (the "Prospectus") in such quantities as may be reasonably requested by the Purchaser.

(i) The Company shall not be required by this Section 3 to include the Purchaser's Shares in any Registration Statement which is to be filed if, in the opinion of counsel for both the Purchaser and the Company (or, should they not agree, in the opinion of another counsel experienced in securities law matters acceptable to counsel for the Purchaser and the Company) the proposed offering or other transfer as to which such registration is requested is exempt from applicable federal and state securities laws and would result in all purchasers or transferees obtaining securities which are not "restricted securities", as defined in Rule 144 under the Securities Act.

(j) If at any time or from time to time after the effective date of the Registration Statement, the Company notifies the Purchaser in writing of the existence of a Potential Material Event (as defined in Section 3(k) below), the Purchaser shall not offer or sell any Shares or engage in any other transaction involving or relating to Shares, from the time of the giving of notice with respect to a Potential Material Event until the Purchaser receives written notice from the Company that such Potential Material Event

either has been disclosed to the public or no longer constitutes a Potential Material Event (the "Suspension Period"). Notwithstanding anything herein to the contrary, if a Suspension Period occurs at any time during any period commencing on a Trading Day a Draw Down Notice is deemed delivered and ending five (5) Trading Days immediately following the end of the corresponding Draw Down Pricing Period, then the Company must compensate the Purchaser for any net decline in the market value of any Shares (i) purchased by the Purchaser pursuant to the most recently completed Draw Down Pricing Period (or, if applicable, during the Draw Down Pricing Period during which the Suspension Period occurred), and (ii) sold by the Purchaser during the five (5) Trading Days immediately following the end of such Suspension period. Net decline shall be calculated as the difference between the average of the Purchases Prices of the Draw Down Shares purchased by the Purchaser pursuant to the most recently completed Draw Down Pricing Period (or, if applicable, during the Draw Down Pricing Period during which the Suspension Period occurred) (the "Pre-Suspension Price") and the average price at which the Purchaser sold the Shares in accordance with (ii) above; PROVIDED, HOWEVER, that the Company shall only be required to compensate the Purchaser for the net decline if the average price at which the Purchaser sold the Shares in accordance with (ii) above is less than 80% of the Pre-Suspension Price. If a Potential Material Event shall occur prior to the date the Registration Statement is filed, then the Company's obligation to file the Registration Statement shall be delayed without penalty for not more than thirty (30) calendar days. If lawful to do so, THE COMPANY MUST GIVE PURCHASER NOTICE IN WRITING OF THE EXISTENCE OF A POTENTIAL MATERIAL EVENT PROMPTLY UPON ITS DETERMINATION THAT SUCH AN EVENT EXISTS AND, WHERE POSSIBLE, AT LEAST TWO (2) DAYS PRIOR TO THE FIRST DAY OF A SUSPENSION PERIOD.

(k) "Potential Material Event" means any of the following: (i) the possession by the Company of material information that is not ripe for disclosure in a registration statement or that would be detrimental to the business and affairs of the Company if disclosed in a Registration Statement, each as determined in good faith by the Chief Executive Officer or the Board of Directors of the Company; (ii) any material engagement or activity by the Company which would, in the good faith determination of the Chief Executive Officer or the Board of Directors of the Company, be adversely affected by disclosure in a registration statement at such time, which determination shall be accompanied by a good faith determination by the Chief Executive Officer or the Board of Directors of the Company that the Registration Statement would be materially misleading absent the inclusion of such information, or (iii) pursuant to applicable law, a fundamental change that requires the Company to file a post-effective amendment to the Registration Statement, change the plan of distribution to the Prospectus, or must update the information included in the Prospectus pursuant to Section 10(a)(3) of the Securities Act.

Section 4. COOPERATION WITH COMPANY. The Purchaser will cooperate with the Company in all respects in connection with this Agreement, including timely supplying all information reasonably requested by the Company (which shall include without limitation all information regarding the Purchaser and proposed manner of sale of the Registrable Securities required to be disclosed in the Registration Statement) and executing and returning all documents

reasonably requested in connection with the registration and sale of the Registrable Securities and entering into and performing its obligations under any underwriting agreement, if the offering is an underwritten offering, in usual and customary form, with the managing underwriter or underwriters of such underwritten offering. The Purchaser shall consent to be named as an underwriter in the Registration Statement. The Purchaser acknowledges that in accordance with current Commission policy, the Purchaser will be named as the underwriter of the Shares in the Registration Statement.

Section 5. REGISTRATION PROCEDURES. If and whenever the Company is required by any of the provisions of this Agreement to effect the registration of any of the Registrable Securities under the Securities Act, the Company shall (except as otherwise provided in this Agreement), as expeditiously as possible, subject to Sections 3(a), 3(b) and 3(e) and to the Purchaser's assistance and cooperation as reasonably required:

(a) (i) prepare and file with the Commission such amendments and supplements to the Registration Statement and the Prospectus as may be necessary to keep such registration statement effective and to comply with the provisions of the Securities Act with respect to the sale or other disposition of all securities covered by such registration statement whenever the Purchaser of such Registrable Securities shall desire to sell or otherwise dispose of the same (including prospectus supplements with respect to the sales of securities from time to time in connection with a registration statement pursuant to Rule 415 promulgated under the Securities Act) and (ii) take all lawful action such that each of (A) the Registration Statement and any amendment thereto does not, when it becomes effective, contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading and (B) the Prospectus, and any amendment or supplement thereto, does not at any time during the Effectiveness Period include an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading;

(b) (i) prior to the filing with the Commission of any Registration Statement (including any amendments thereto) and the distribution or delivery of the Prospectus (including any supplements thereto), provide draft copies thereof to the Purchaser and reflect in such documents all such comments as the Purchaser (and its counsel) reasonably may propose and to which the Company does not reasonably object and (ii) furnish to the Purchaser such numbers of copies of the Prospectus including a preliminary prospectus or any amendment or supplement to the Prospectus, as applicable, in conformity with the requirements of the Securities Act, and such other documents, as the Purchaser may reasonably request in order to facilitate the public sale or other disposition of the Registrable Securities;

(c) comply with the New York blue sky laws with respect to the Registrable Securities (subject to the limitations set forth in Section 3(g) above), and do any and all other acts and things which may be reasonably necessary or advisable to enable the Purchaser to consummate the public sale or other disposition in such

jurisdiction of the Registrable Securities, except that the Company shall not for any such purpose be required to qualify to do business as a foreign corporation in any jurisdiction wherein it is not so qualified or to file therein any general consent to service of process;

(d) list such Registrable Securities on the Principal Market, and any other exchange on which the Common Stock of the Company is then listed, if the listing of such Registrable Securities is then permitted under the rules of such exchange or the Nasdaq Stock Market;

(e) notify the Purchaser at any time when the Prospectus is required to be delivered under the Securities Act, of the happening of any event of which it has knowledge as a result of which the Prospectus, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing, and the Company shall promptly prepare and file a curative amendment or curative supplement under Section 5(a) as quickly as commercially possible and the period beginning on the date of notice until the curative amendment is effective or curative supplement is provided to the Purchaser shall be deemed a Suspension Period and the Company shall compensate the Purchaser as set forth in Section 3(j) herein;

(f) as promptly as practicable after becoming aware of such event, notify the Purchaser (or, in the event of an underwritten offering, the managing underwriters) of the issuance by the Commission or any state authority of any stop order or other suspension of the effectiveness of the Registration Statement at the earliest possible time and take all lawful action to effect the withdrawal, rescission or removal of such stop order or other suspension;

(g) take all such other lawful actions reasonably necessary to facilitate the disposition by the Purchaser of its Registrable Securities in accordance with the methods therefor provided in the Prospectus which are customary for issuers to perform under the circumstances;

(h) in the event of an underwritten offering, promptly include or incorporate in a prospectus supplement or post-effective amendment to the Registration Statement such information as the managing underwriters reasonably agree should be included therein and to which the Company does not reasonably object and make all required filings of such prospectus supplement or post-effective amendment as soon as practicable after it is notified of the matters to be included or incorporated in such prospectus supplement or post-effective amendment; and

(i) maintain a transfer agent for its Common Stock.

Section 6. INDEMNIFICATION.

(a) The Company agrees to indemnify and hold harmless the Purchaser and each person, if any, who controls the Purchaser within the meaning of the Securities

Act ("Distributing Purchaser") against any losses, claims, damages or liabilities, joint or several (which shall, for all purposes of this Agreement, include, but not be limited to, all reasonable costs of defense and investigation and all reasonable attorneys' fees), to which the Distributing Purchaser may become subject, under the Securities Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon any untrue statement or alleged untrue statement of any material fact contained in the Registration Statement, or any related preliminary prospectus, the Prospectus or amendment or supplement thereto, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein in light of the circumstances when made not misleading; provided, however, that the Company will not be liable in any such case to the extent that any such loss, claim, damage or liability arises out of or is based upon an untrue statement or alleged untrue statement or omission or alleged omission made in the Registration Statement, preliminary prospectus, the Prospectus or amendment or supplement thereto in reliance upon, and in conformity with, written information furnished to the Company by the Distributing Purchaser specifically for use in the preparation thereof. This Section 6(a) shall not inure to the benefit of any Distributing Purchaser with respect to any person asserting such loss, claim, damage or liability who purchased the Registrable Securities which are the subject thereof if the Distributing Purchaser failed to send or give a copy of the Prospectus to such person at or prior to the written confirmation to such person of the sale of such Registrable Securities, where the Distributing Purchaser was obligated to do so under the Securities Act or the rules and regulations promulgated thereunder. This indemnity agreement will be in addition to any liability which the Company may otherwise have.

(b) Each Distributing Purchaser agrees that it will indemnify and hold harmless the Company, and each officer, director of the Company or person, if any, who controls the Company within the meaning of the Securities Act, against any losses, claims, damages or liabilities (which shall, for all purposes of this Agreement, include, but not be limited to, all reasonable costs of defense and investigation and all reasonable attorneys' fees) to which the Company or any such officer, director or controlling person may become subject under the Securities Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon any untrue statement or alleged untrue statement of any material fact contained in the Registration Statement, or any related preliminary prospectus, the Prospectus or amendment or supplement thereto, or arise out of or are based upon the omission or the alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, but in each case only to the extent that such untrue statement or alleged untrue statement or omission or alleged omission was made in the Registration Statement, preliminary prospectus, the Prospectus or amendment or supplement thereto in reliance upon, and in conformity with, written information furnished to the Company by such Distributing Purchaser specifically for use in the preparation thereof. This indemnity agreement will be in addition to any liability which the Distributing Purchaser may otherwise have. Notwithstanding anything to the contrary herein, the Distributing Purchaser shall not be liable under this Section 6(b) for any

amount in excess of the net proceeds to such Distributing Purchaser as a result of the sale of Registrable Securities pursuant to the Registration Statement.

(c) Promptly after receipt by an indemnified party under this Section 6 of notice of the commencement of any action, such indemnified party will, if a claim in respect thereof is to be made against the indemnifying party under this Section 6, notify the indemnifying party of the commencement thereof; but the omission so to notify the indemnifying party will not relieve the indemnifying party from any liability which it may have to any indemnified party except to the extent of actual prejudice demonstrated by the indemnifying party. In case any such action is brought against any indemnified party, and it notifies the indemnifying party of the commencement thereof, the indemnifying party will be entitled to participate in, and, to the extent that it may wish, jointly with any other indemnifying party similarly notified, assume the defense thereof, subject to the provisions herein stated and after notice from the indemnifying party to such indemnified party of its election so to assume the defense thereof, the indemnifying party will not be liable to such indemnified party under this Section 6 for any legal or other expenses subsequently incurred by such indemnified party in connection with the defense thereof other than reasonable costs of investigation, unless the indemnifying party shall not pursue the action to its final conclusion. The indemnified party shall have the right to employ separate counsel in any such action and to participate in the defense thereof, but the fees and expenses of such counsel shall not be at the expense of the indemnifying party if the indemnifying party has assumed the defense of the action with counsel reasonably satisfactory to the indemnified party; provided that if the indemnified party is the Distributing Purchaser, the fees and expenses of such counsel shall be at the expense of the indemnifying party if (i) the employment of such counsel has been specifically authorized in writing by the indemnifying party, or (ii) the named parties to any such action (including any impleaded parties) include both the Distributing Purchaser and the indemnifying party and the Distributing Purchaser shall have been advised by such counsel in writing that there may be one or more legal defenses available to the indemnifying party different from or in conflict with any legal defenses which may be available to the Distributing Purchaser (in which case the indemnifying party shall not have the right to assume the defense of such action on behalf of the Distributing Purchaser, it being understood, however, that the indemnifying party shall, in connection with any one such action or separate but substantially similar or related actions in the same jurisdiction arising out of the same general allegations or circumstances, be liable only for the reasonable fees and expenses of one separate firm of attorneys for the Distributing Purchaser, which firm shall be designated in writing by the Distributing Purchaser and be approved by the indemnifying party). No settlement of any action against an indemnified party shall be made without the prior written consent of the indemnified party, which consent shall not be unreasonably withheld.

All fees and expenses of the indemnified party (including reasonable costs of defense and investigation in a manner not inconsistent with this Section and all reasonable attorneys' fees and expenses) shall be promptly paid to the indemnified party, as incurred; within 10 Trading Days of written notice thereof to the indemnified party; provided, that the indemnifying party may require such indemnified party to undertake to

reimburse all such fees and expenses to the extent it is finally judicially determined that such indemnified party is not entitled to indemnification hereunder.

Section 7. CONTRIBUTION. In order to provide for just and equitable contribution under the Securities Act in any case in which (i) the indemnified party makes a claim for indemnification pursuant to Section 6 hereof but it is judicially determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the expiration of time to appeal or the denial of the last right of appeal) that such indemnification may not be enforced in such case notwithstanding the fact that the express provisions of Section 6 hereof provide for indemnification in such case, or (ii) contribution under the Securities Act may be required on the part of any indemnified party, then the Company and the applicable Distributing Purchaser shall contribute to the aggregate losses, claims, damages or liabilities to which they may be subject (which shall, for all purposes of this Agreement, include, but not be limited to, all reasonable costs of defense and investigation and all reasonable attorneys' fees), in either such case (after contribution from others) on the basis of relative fault as well as any other relevant equitable considerations. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company on the one hand or the applicable Distributing Purchaser on the other hand, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Distributing Purchaser agree that it would not be just and equitable if contribution pursuant to this Section 7 were determined by pro rata allocation or by any other method of allocation which does not take account of the equitable considerations referred to in this Section 7. The amount paid or payable by an indemnified party as a result of the losses, claims, damages or liabilities (or actions in respect thereof) referred to above in this Section 7 shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

Notwithstanding any other provision of this Section 7, in no event shall any (i) Purchaser be required to undertake liability to any person under this Section 7 for any amounts in excess of the dollar amount of the net proceeds to be received by the Purchaser from the sale of the Purchaser's Registrable Securities (after deducting any fees, discounts and commissions applicable thereto) pursuant to any Registration Statement under which such Registrable Securities are or were to be registered under the Securities Act and (ii) underwriter be required to undertake liability to any person hereunder for any amounts in excess of the aggregate discount, commission or other compensation payable to such underwriter with respect to the Registrable Securities underwritten by it and distributed pursuant to the Registration Statement.

Section 8. NOTICES. All notices, demands, requests, consents, approvals, and other communications required or permitted hereunder shall be in writing and, unless otherwise specified herein, shall be delivered as set forth in the Purchase Agreement.

Section 9. ASSIGNMENT. Neither this Agreement nor any rights of the Purchaser or the Company hereunder may be assigned by either party to any other person. Notwithstanding the foregoing, upon the prior written consent of the Company, which consent shall not be unreasonably withheld or delayed in the case of an assignment to an affiliate of the Purchaser, the Purchaser's interest in this Agreement may be assigned at any time, in whole or in part, to any affiliate of the Purchaser, who agrees to be bound hereby.

Section 10. COUNTERPARTS/FACSIMILE. This Agreement may be executed in two or more counterparts, each of which shall constitute an original, but all of which, when together shall constitute but one and the same instrument, and shall become effective when one or more counterparts have been signed by each party hereto and delivered to the other party. In lieu of the original, a facsimile transmission or copy of the original shall be as effective and enforceable as the original.

Section 11. REMEDIES AND SEVERABILITY. The remedies provided in this Agreement are cumulative and not exclusive of any remedies provided by law. If any term, provision, covenant or restriction of this Agreement is held by a board of arbitration or a court of competent jurisdiction to be invalid, illegal, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions set forth herein shall remain in full force and effect and shall in no way be affected, impaired or invalidated, and the parties hereto shall use their best efforts to find and employ an alternative means to achieve the same or substantially the same result as that contemplated by such term, provision, covenant or restriction. It is hereby stipulated and declared to be the intention of the parties that they would have executed the remaining terms, provisions, covenants and restrictions without including any of those that may be hereafter declared invalid, illegal, void or unenforceable.

Section 12. ENTIRE AGREEMENT; AMENDMENT AND WAIVER. This Agreement and the other Transaction Documents (as defined in the Purchase Agreement) constitute the entire understanding of the parties with respect to the subject matter hereof and thereof and supersede any and all prior understandings and agreements, whether written or oral, with respect to such subject matter. Neither this Agreement nor any term may be amended, waived, discharged or terminated, except by written instrument signed by the Company and the holders of Registrable Securities.

Section 13. CONFLICTING AGREEMENTS. The Company shall not enter into any agreement with respect to its securities that is inconsistent with the rights granted to the Purchasers in this Agreement or otherwise prevents the Company from complying with all of its obligations hereunder.

Section 14. HEADINGS. The headings in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement.

Section 15. GOVERNING LAW. This Agreement shall be governed by and construed in accordance with the laws of the State of New York applicable to contracts made in New York by persons domiciled in New York City and without regard to its principles of conflicts of laws. The Company and the Purchaser agree to submit themselves to the IN PERSONAM jurisdiction of

the state and federal courts situated within the Southern District of the State of New York with regard to any controversy arising out of or relating to this Agreement. Any party shall have the right to seek injunctive relief from any court of competent jurisdiction in any case where such relief is available. Any dispute under this Agreement shall be submitted to arbitration under the American Arbitration Association (the "AAA") in New York City, New York, and shall be finally and conclusively determined by the decision of a board of arbitration consisting of three (3) members (hereinafter referred to as the "Board of Arbitration") selected as according to the rules governing the AAA. The Board of Arbitration shall meet on consecutive business days in New York City, New York, and shall reach and render a decision in writing (concurred in by a majority of the members of the Board of Arbitration) with respect to the amount, if any, which the losing party is required to pay to the other party in respect of a claim filed. In connection with rendering its decisions, the Board of Arbitration shall adopt and follow the laws of the State of New York. To the extent practical, decisions of the Board of Arbitration shall be rendered no more than thirty (30) calendar days following commencement of proceedings with respect thereto. The Board of Arbitration shall cause its written decision to be delivered to all parties involved in the dispute. The Board of Arbitration shall be authorized and is directed to enter a default judgment against any party refusing to participate in the arbitration proceeding within thirty days of any deadline for such participation. Any decision made by the Board of Arbitration (either prior to or after the expiration of such thirty (30) calendar day period) shall be final, binding and conclusive on the parties to the dispute, and entitled to be enforced to the fullest extent permitted by law and entered in any court of competent jurisdiction. The prevailing party shall be awarded its costs, including reasonable attorneys' fees, from the non-prevailing party as part of the arbitration award. Any party shall have the right to seek injunctive relief from any court of competent jurisdiction in any case where such relief is available. The prevailing party in such injunctive action shall be awarded its costs, including reasonable attorney's fees, from the non-prevailing party.

[SIGNATURE PAGE FOLLOWS]

[SIGNATURE PAGE TO REGISTRATION RIGHTS REGISTRATION RIGHTS AGREEMENT]

IN WITNESS WHEREOF, the parties hereto have caused this Registration Rights Agreement to be duly executed, on this 10th day of May, 2001

STEMCELLS, INC.

By: /s/ Martin McGlynn

Martin McGlynn, President & CEO

SATIVUM INVESTMENTS LIMITED

By: /s/ David Sims

David Sims, Director

NEITHER THIS WARRANT NOR THE SHARES ISSUABLE UPON EXERCISE HEREOF HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT") OR ANY OTHER APPLICABLE SECURITIES LAWS IN RELIANCE UPON AN EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND SUCH OTHER SECURITIES LAWS. NEITHER THIS WARRANT NOR THE SHARES ISSUABLE UPON EXERCISE HEREOF MAY BE SOLD, PLEDGED, TRANSFERRED, ENCUMBERED OR OTHERWISE DISPOSED OF EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR IN A TRANSACTION WHICH IS EXEMPT FROM REGISTRATION UNDER THE PROVISIONS OF THE SECURITIES ACT AND ANY APPLICABLE STATE LAWS.

STOCK PURCHASE WARRANT

To Purchase 250,000 Shares of Common Stock of

STEMCELLS, INC.

THIS CERTIFIES that, for value received, Sativum Investments Limited (the "Holder"), is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after May 10, 2001 (the "Initial Exercise Date") and on or prior to the close of business on May 10, 2004 (the "Termination Date") but not thereafter, to subscribe for and purchase from StemCells, Inc., a corporation incorporated in Delaware (the "Company"), up to 250,000 shares (the "Warrant Shares") of Common Stock, $0.01 par value per share, of the Company (the "Common Stock"). The purchase price of one share of Common Stock (the "Exercise Price") under this Warrant shall be $2.3805. The Exercise Price and the number of Warrant Shares for which the Warrant is exercisable shall be subject to adjustment as provided herein. In the event of any conflict between the terms of this Warrant and the Common Stock Purchase Agreement dated as of May 10, 2001 pursuant to which this Warrant has been issued (the "Purchase Agreement"), the Purchase Agreement shall control. Capitalized terms used and not otherwise defined herein shall have the meanings set forth for such terms in the Purchase Agreement.

1. TITLE TO WARRANT. Prior to the Termination Date and subject to compliance with applicable laws, this Warrant and all rights hereunder are transferable, subject to Section 7 herein, in whole or in part, at the office or agency of the Company by the Holder in person or by duly authorized attorney, upon surrender of this Warrant together with the Assignment Form annexed hereto properly endorsed.

2. AUTHORIZATION OF SHARES. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

3. EXERCISE OF WARRANT.

(a) Except as provided in Section 4 herein, exercise of the purchase rights represented by this Warrant may be made at any time or times on or after the Initial Exercise Date and on or before the close of business on the Termination Date by the surrender of this Warrant and the Notice of Exercise Form annexed hereto duly executed, at the office of the Company (or such other office or agency of the Company as it may designate by notice in writing to the registered Holder at the address of such Holder appearing on the books of the Company) and upon payment of the Exercise Price of the shares thereby purchased by wire transfer or cashier's check drawn on a United States bank, or by means of a cashless exercise as provided in Section 3(c) below, the Holder shall be entitled to receive a certificate for the number of Warrant Shares so purchased. Certificates for shares purchased hereunder shall be delivered to the Holder within three (3) Trading Days after the date on which this Warrant shall have been exercised as aforesaid. This Warrant shall be deemed to have been exercised and such certificate or certificates shall be deemed to have been issued, and Holder or any other person so designated to be named therein shall be deemed to have become a holder of record of such shares for all purposes, as of the date the Warrant has been exercised by payment to the Company of the Exercise Price and all taxes required to be paid by the Holder, if any, pursuant to Section 5 prior to the issuance of such shares, have been paid.

(b) If this Warrant shall have been exercised in part, the Company shall, at the time of delivery of the certificate or certificates representing Warrant Shares, deliver to Holder a new Warrant evidencing the rights of Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

(c) This Warrant shall also be exercisable by means of a "cashless exercise" in which the Holder shall be entitled to receive a certificate for the number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = the average of the high and low trading prices per share of Common Stock on the Trading Day preceding the date of such election on the Nasdaq Stock Market, or if the Common Stock is not traded on the Nasdaq Stock Market, then the Principal Market in terms of volume;

(B) = the Exercise Price of this Warrant; and

(X) = the number of Warrant Shares issuable upon exercise of this Warrant in accordance with the terms of this Warrant and the Notice of Exercise.

(d) Notwithstanding anything herein to the contrary, in no event shall the Holder be permitted to exercise this Warrant for Warrant Shares to the extent that (i) the number of shares of Common Stock owned by such Holder (other than Warrant Shares issuable upon exercise of this Warrant) plus (ii) the number of Warrant Shares issuable upon exercise of this Warrant, would be equal to or exceed 9.9% of the number of shares of Common Stock then issued and outstanding, including shares issuable upon exercise of this Warrant held by such Holder after application of this Section 3(d). As used herein, beneficial ownership shall be determined in accordance with Section 13(d) of the Exchange Act. To the extent that the limitation contained in this Section 3(d) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder) and of which a portion of this Warrant is exercisable shall be in the sole discretion of such Holder, and the submission of a Notice of Exercise shall be deemed to be such Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by such Holder) and of which portion of this Warrant is exercisable, in each case subject to such aggregate percentage limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. Nothing contained herein shall be deemed to restrict the right of a Holder to exercise this Warrant into Warrant Shares at such time as such exercise will not violate the provisions of this Section 3(d). The provisions of this Section 3(d) may be waived by the Holder upon, at the election of the Holder, with not less than 61 days' prior notice to the Company, and the provisions of this Section 3(d) shall continue to apply until such 61st day (or such later date as may be specified in such notice of waiver). No exercise of this Warrant in violation of this Section 3(d) but otherwise in accordance with this Warrant shall affect the status of the Warrant Shares as validly issued, fully-paid and nonassessable.

4. NO FRACTIONAL SHARES OR SCRIP. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which Holder would otherwise be entitled to purchase upon such exercise, the Company shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price.

5. CHARGES, TAXES AND EXPENSES. Issuance of certificates for Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such certificate, all of which taxes and expenses shall be

paid by the Company, and such certificates shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; PROVIDED, HOWEVER, that in the event certificates for Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder; and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto.

6. CLOSING OF BOOKS. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant.

7. TRANSFER, DIVISION AND COMBINATION.

(a) Subject to compliance with any applicable securities laws, transfer of this Warrant and all rights hereunder, in whole or in part, shall be registered on the books of the Company to be maintained for such purpose, upon surrender of this Warrant at the principal office of the Company, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. In the event that the Holder wishes to transfer a portion of this Warrant, the Holder shall transfer at least 100,000 shares underlying this Warrant to any such transferee. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. A Warrant, if properly assigned, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

(b) This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 7(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice.

(c) The Company shall prepare, issue and deliver at its own expense (other than transfer taxes) the new Warrant or Warrants under this Section 7.

(d) The Company agrees to maintain, at its aforesaid office, books for the registration and the registration of transfer of the Warrants.

8. NO RIGHTS AS SHAREHOLDER UNTIL EXERCISE. This Warrant does not entitle the Holder to any voting rights or other rights as a shareholder of the Company prior to the exercise hereof. Upon the surrender of this Warrant and the payment of the aggregate Exercise Price or by means of a cashless exercise, the Warrant Shares so purchased shall be and be deemed to be

issued to such Holder as the record owner of such shares as of the close of business on the later of the date of such surrender or payment.

9. LOSS, THEFT, DESTRUCTION OR MUTILATION OF WARRANT. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

10. SATURDAYS, SUNDAYS, HOLIDAYS, ETC. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall be a Saturday, Sunday or a legal holiday, then such action may be taken or such right may be exercised on the next succeeding day not a Saturday, Sunday or legal holiday.

11. ADJUSTMENTS OF EXERCISE PRICE AND NUMBER OF WARRANT SHARES. STOCK SPLITS, ETC. The number and kind of securities purchasable upon the exercise of this Warrant and the Exercise Price shall be subject to adjustment from time to time upon the happening of any of the following. In case the Company shall (i) pay a dividend in shares of Common Stock or make a distribution in shares of Common Stock to holders of its outstanding Common Stock, (ii) subdivide its outstanding shares of Common Stock into a greater number of shares, (iii) combine its outstanding shares of Common Stock into a smaller number of shares of Common Stock, or (iv) issue any shares of its capital stock in a reclassification of the Common Stock, then the number of Warrant Shares purchasable upon exercise of this Warrant immediately prior thereto shall be adjusted so that the Holder shall be entitled to receive the kind and number of Warrant Shares or other securities of the Company which it would have owned or have been entitled to receive had such Warrant been exercised in advance thereof. Upon each such adjustment of the kind and number of Warrant Shares or other securities of the Company which are purchasable hereunder, the Holder shall thereafter be entitled to purchase the number of Warrant Shares or other securities resulting from such adjustment at an Exercise Price per Warrant Share or other security obtained by multiplying the Exercise Price in effect immediately prior to such adjustment by the number of Warrant Shares purchasable pursuant hereto immediately prior to such adjustment and dividing by the number of Warrant Shares or other securities of the Company resulting from such adjustment. An adjustment made pursuant to this paragraph shall become effective immediately after the effective date of such event retroactive to the record date, if any, for such event.

12. REORGANIZATION, RECLASSIFICATION, MERGER, CONSOLIDATION OR DISPOSITION OF ASSETS. In case the Company shall reorganize its capital, reclassify its capital stock, consolidate or merge with or into another corporation (where the Company is not the surviving corporation or where there is a change in or distribution with respect to the Common Stock of the Company) and, pursuant to the terms of such reorganization, reclassification, merger, consolidation, shares of common stock of the successor or acquiring corporation, or any cash, shares of stock or other securities or property of any nature whatsoever (including warrants or other subscription or purchase rights) in addition to or in lieu of common stock of the successor or acquiring

corporation ("Other Property"), are to be received by or distributed to the holders of Common Stock of the Company, then the Holder shall have the right thereafter to receive, upon exercise of this Warrant, the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and Other Property receivable upon or as a result of such reorganization, reclassification, merger, or consolidation by a Holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such event. In case of any such reorganization, reclassification, merger or, consolidation, the successor or acquiring corporation (if other than the Company) shall expressly assume the due and punctual observance and performance of each and every covenant and condition of this Warrant to be performed and observed by the Company and all the obligations and liabilities hereunder, subject to such modifications as may be deemed appropriate (as determined in good faith by resolution of the Board of Directors of the Company) in order to provide for adjustments of Warrant Shares for which this Warrant is exercisable which shall be as nearly equivalent as practicable to the adjustments provided for in this Section 12. For purposes of this Section 12, "common stock of the successor or acquiring corporation" shall include stock of such corporation of any class which is not preferred as to dividends or assets over any other class of stock of such corporation and which is not subject to redemption and shall also include any evidences of indebtedness, shares of stock or other securities which are convertible into or exchangeable for any such stock, either immediately or upon the arrival of a specified date or the happening of a specified event and any warrants or other rights to subscribe for or purchase any such stock. The foregoing provisions of this Section 12 shall similarly apply to successive reorganizations, reclassifications, mergers, or consolidations.

13. VOLUNTARY ADJUSTMENT BY THE COMPANY. The Company may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the Board of Directors of the Company.

14. NOTICE OF ADJUSTMENT. Whenever the number of Warrant Shares or number or kind of securities or other property purchasable upon the exercise of this Warrant or the Exercise Price is adjusted, as herein provided, the Company shall promptly mail by registered or certified mail, return receipt requested, to the Holder notice of such adjustment or adjustments setting forth the number of Warrant Shares (and other securities or property) purchasable upon the exercise of this Warrant and the Exercise Price of such Warrant Shares (and other securities or property) after such adjustment, setting forth a brief statement of the facts requiring such adjustment and setting forth the computation by which such adjustment was made. Such notice, in the absence of manifest error, shall be conclusive evidence of the correctness of such adjustment.

15. NOTICE OF CORPORATE ACTION. If at any time:

(a) the Company shall take a record of the holders of its Common Stock for the purpose of entitling them to receive a dividend or other distribution, or any right to subscribe for or purchase any evidences of its indebtedness, any shares of stock of any class or any other securities or property, or to receive any other right, or

(b) there shall be any capital reorganization of the Company, any reclassification or recapitalization of the capital stock of the Company or any consolidation or merger of the Company with, or any sale, transfer or other disposition of all or substantially all the property, assets or business of the Company to, another corporation or,

(c) there shall be a voluntary or involuntary dissolution, liquidation or winding up of the Company;

then, in any one or more of such cases, the Company shall give to Holder (i) at least 10 days' prior written notice of the date on which a record date shall be selected for such dividend, distribution or right or for determining rights to vote in respect of any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, liquidation or winding up, and (ii) in the case of any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, dissolution, liquidation or winding up, at least 10 days' prior written notice of the date when the same shall take place. Such notice in accordance with the foregoing clause also shall specify (i) the date on which any such record is to be taken for the purpose of such dividend, distribution or right, the date on which the holders of Common Stock shall be entitled to any such dividend, distribution or right, and the amount and character thereof, and (ii) the date on which any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, dissolution, liquidation or winding up is to take place and the time, if any such time is to be fixed, as of which the holders of Common Stock shall be entitled to exchange their Warrant Shares for securities or other property deliverable upon such disposition, dissolution, liquidation or winding up. Each such written notice shall be sufficiently given if addressed to Holder at the last address of Holder appearing on the books of the Company and delivered in accordance with Section 17(d).

16. AUTHORIZED SHARES. The Company covenants that during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of executing stock certificates to execute and issue the necessary certificates for the Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Principal Market upon which the Common Stock may be listed.

The Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder against impairment. Without limiting the generality of the foregoing, the Company will (a) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (b) take all such action as may be necessary or appropriate in order that the

Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant, and (c) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof as may be necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

17. MISCELLANEOUS.

(a) JURISDICTION. This Warrant shall constitute a contract under the laws of New York, without regard to its conflict of law, principles or rules, and be subject to arbitration pursuant to the terms set forth in the Purchase Agreement.

(b) RESTRICTIONS. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, will have restrictions upon resale imposed by state and federal securities laws.

(c) NONWAIVER AND EXPENSES. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice Holder's rights, powers or remedies, notwithstanding all rights hereunder terminate on the Termination Date. If there is a final judgment finding that the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

(d) NOTICES. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Purchase Agreement.

(e) LIMITATION OF LIABILITY. No provision hereof, in the absence of affirmative action by Holder to purchase Warrant Shares, and no enumeration herein of the rights or privileges of Holder, shall give rise to any liability of Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

(f) REMEDIES. Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach

by it of the provisions of this Warrant and hereby agrees to waive the defense in any action for specific performance that a remedy at law would be adequate.

(g) SUCCESSORS AND ASSIGNS. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of all Holders from time to time of this Warrant and shall be enforceable by any such Holder or holder of Warrant Shares.

(h) AMENDMENT. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.

(i) SEVERABILITY. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

(j) HEADINGS. The headings used in this Warrant are dissolution, liquidation or reference only and shall not, for any purpose, be deemed a part of this Warrant.

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized.

Dated: May 10, 2001

STEMCELLS, INC.

By: /s/ Martin McGlynn

Martin McGlynn, President & CEO

NOTICE OF EXERCISE

To: StemCells, Inc.

(1) The undersigned hereby elects to purchase _____ Warrant Shares (the "Common Stock"), of StemCells, Inc. pursuant to the terms of the attached Warrant, and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Please issue a certificate or certificates representing said Warrant Shares in the name of the undersigned or in such other name as is specified below:

The Warrant Shares shall be delivered to the following:

SATIVUM INVESTMENTS LIMITED

By: _____
Name:
Title:

Dated: _____

NOTICE OF EXERCISE OF COMMON STOCK WARRANT
PURSUANT TO CASHLESS EXERCISE PROVISIONS

To: StemCells, Inc.

Aggregate Price of Warrant Before Exercise: $_____
Aggregate Price Being Exercised: $_____
Exercise Price: $_____ per share
Number of Shares of Common Stock to be Issued Under this Notice: _____
Remaining Aggregate Price (if any) After Issuance: $_____

Gentlemen:

The undersigned, registered Holder of the Warrant delivered herewith, hereby irrevocably exercises such Warrant for, and purchases thereunder, shares of the Common Stock of StemCells, Inc., a Delaware corporation, as provided below. Capitalized terms used herein, unless otherwise defined herein, shall have the meanings given in the Warrant. The portion of the Exercise Price (as defined in the Warrant) to be applied toward the purchase of Common Stock pursuant to this Notice of Exercise is $_____, thereby leaving a remaining Exercise Price (if any) equal to $_____. Such exercise shall be pursuant to the cashless exercise provisions of Section 3 of the Warrant; therefore, Holder makes no payment with this Notice of Exercise. The number of shares to be issued pursuant to this exercise shall be determined by reference to the formula in Section 3 of the Warrant which, by reference to Section 3, requires the use of the high and low trading price of the Company's Common Stock on the Trading Day preceding the date of such election. The high and low trading price of the Company's Common Stock has been determined by Holder to be $_____ and $_____, respectively, which figure is acceptable to Holder for calculations of the number of shares of Common Stock issuable pursuant to this Notice of Exercise. Holder requests that the certificates for the purchased shares of Common Stock be issued in the name of _____ and delivered to _____. To the extent the foregoing exercise is for less than the full Aggregate Price of the Warrant, a replacement Warrant representing the remainder of the Aggregate Price (and otherwise of like form, tenor and effect) shall be delivered

to Holder along with the share certificate evidencing the Common Stock issued in response to this Notice of Exercise.

SATIVUM INVESTMENTS LIMITED

By:

Name:
Title:

Date:

NOTE

The execution to the foregoing Notice of Exercise must exactly correspond to the name of the Holder on the Warrant.

ASSIGNMENT FORM

(To assign the foregoing warrant, execute
this form and supply required information.
Do not use this form to exercise the warrant.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

_____ whose address is

_____

_____

Dated: _____, _____

Holder's Signature:_____

Holder's Address: _____

_____

Signature Guaranteed: _____

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatsoever, and must be guaranteed by a bank or trust company. Officers of corporations and those acting in an fiduciary or other representative capacity should file proper evidence of authority to assign the foregoing Warrant.

NEITHER THIS WARRANT NOR THE SHARES ISSUABLE UPON EXERCISE HEREOF HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT") OR ANY OTHER APPLICABLE SECURITIES LAWS IN RELIANCE UPON AN EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND SUCH OTHER SECURITIES LAWS. NEITHER THIS WARRANT NOR THE SHARES ISSUABLE UPON EXERCISE HEREOF MAY BE SOLD, PLEDGED, TRANSFERRED, ENCUMBERED OR OTHERWISE DISPOSED OF EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR IN A TRANSACTION WHICH IS EXEMPT FROM REGISTRATION UNDER THE PROVISIONS OF THE SECURITIES ACT AND ANY APPLICABLE STATE LAWS.

STOCK PURCHASE WARRANT

To Purchase 75,000 Shares of Common Stock of

STEMCELLS, INC.

THIS CERTIFIES that, for value received, Pacific Crest Securities, Inc. (the "Holder"), is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after May 10, 2001 (the "Initial Exercise Date") and on or prior to the close of business on May 10, 2004 (the "Termination Date") but not thereafter, to subscribe for and purchase from StemCells, Inc., a corporation incorporated in Delaware (the "Company"), up to 75,000 shares (the "Warrant Shares") of Common Stock, $0.01 par value per share, of the Company (the "Common Stock"). The purchase price of one share of Common Stock (the "Exercise Price") under this Warrant shall be $2.3805. The Exercise Price and the number of Warrant Shares for which the Warrant is exercisable shall be subject to adjustment as provided herein. Capitalized terms used and not otherwise defined herein shall have the meanings set forth for such terms in the Common Stock Purchase Agreement, dated as of May 10, 2001, between the Company and Sativum Investments Limited (the "Purchase Agreement").

1. TITLE TO WARRANT. Prior to the Termination Date and subject to compliance with applicable laws, this Warrant and all rights hereunder are transferable, subject to Section 7 herein, in whole or in part, at the office or agency of the Company by the Holder in person or by duly authorized attorney, upon surrender of this Warrant together with the Assignment Form annexed hereto properly endorsed.

2. AUTHORIZATION OF SHARES. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

3. EXERCISE OF WARRANT.

(a) Except as provided in Section 4 herein, exercise of the purchase rights represented by this Warrant may be made at any time or times on or after the Initial Exercise Date and on or before the close of business on the Termination Date by the surrender of this Warrant and the Notice of Exercise Form annexed hereto duly executed, at the office of the Company (or such other office or agency of the Company as it may designate by notice in writing to the registered Holder at the address of such Holder appearing on the books of the Company) and upon payment of the Exercise Price of the shares thereby purchased by wire transfer or cashier's check drawn on a United States bank, or by means of a cashless exercise as provided in Section 3(c) below, the Holder shall be entitled to receive a certificate for the number of Warrant Shares so purchased. Certificates for shares purchased hereunder shall be delivered to the Holder within three (3) Trading Days after the date on which this Warrant shall have been exercised as aforesaid. This Warrant shall be deemed to have been exercised and such certificate or certificates shall be deemed to have been issued, and Holder or any other person so designated to be named therein shall be deemed to have become a holder of record of such shares for all purposes, as of the date the Warrant has been exercised by payment to the Company of the Exercise Price and all taxes required to be paid by the Holder, if any, pursuant to Section 5 prior to the issuance of such shares, have been paid.

(b) If this Warrant shall have been exercised in part, the Company shall, at the time of delivery of the certificate or certificates representing Warrant Shares, deliver to Holder a new Warrant evidencing the rights of Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

(c) This Warrant shall also be exercisable by means of a "cashless exercise" in which the Holder shall be entitled to receive a certificate for the number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = the average of the high and low trading prices per share of Common Stock on the Trading Day preceding the date of such election on the Nasdaq Stock Market, or if the Common Stock is not traded on the Nasdaq Stock Market, then the Principal Market in terms of volume;

(B) = the Exercise Price of this Warrant; and

(X) = the number of Warrant Shares issuable upon exercise of this Warrant in accordance with the terms of this Warrant and the Notice of Exercise.

(d) Notwithstanding anything herein to the contrary, in no event shall the Holder be permitted to exercise this Warrant for Warrant Shares to the extent that (i) the number of shares of Common Stock owned by such Holder (other than Warrant Shares issuable upon exercise of this Warrant) plus (ii) the number of Warrant Shares issuable upon exercise of this Warrant, would be equal to or exceed 9.9% of the number of shares of Common Stock then issued and outstanding, including shares issuable upon exercise of this Warrant held by such Holder after application of this Section 3(d). As used herein, beneficial ownership shall be determined in accordance with Section 13(d) of the Exchange Act. To the extent that the limitation contained in this Section 3(d) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder) and of which a portion of this Warrant is exercisable shall be in the sole discretion of such Holder, and the submission of a Notice of Exercise shall be deemed to be such Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by such Holder) and of which portion of this Warrant is exercisable, in each case subject to such aggregate percentage limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. Nothing contained herein shall be deemed to restrict the right of a Holder to exercise this Warrant into Warrant Shares at such time as such exercise will not violate the provisions of this Section 3(d). The provisions of this Section 3(d) may be waived by the Holder upon, at the election of the Holder, with not less than 61 days' prior notice to the Company, and the provisions of this Section 3(d) shall continue to apply until such 61st day (or such later date as may be specified in such notice of waiver). No exercise of this Warrant in violation of this Section 3(d) but otherwise in accordance with this Warrant shall affect the status of the Warrant Shares as validly issued, fully-paid and nonassessable.

4. NO FRACTIONAL SHARES OR SCRIP. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which Holder would otherwise be entitled to purchase upon such exercise, the Company shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price.

5. CHARGES, TAXES AND EXPENSES. Issuance of certificates for Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such certificate, all of which taxes and expenses shall be

paid by the Company, and such certificates shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; PROVIDED, HOWEVER, that in the event certificates for Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder; and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto.

6. CLOSING OF BOOKS. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant.

7. TRANSFER, DIVISION AND COMBINATION.

(a) Subject to compliance with any applicable securities laws, transfer of this Warrant and all rights hereunder, in whole and not in part, shall be registered on the books of the Company to be maintained for such purpose, upon surrender of this Warrant at the principal office of the Company, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. A Warrant, if properly assigned, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

(b) This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 7(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice.

(c) The Company shall prepare, issue and deliver at its own expense (other than transfer taxes) the new Warrant or Warrants under this Section 7.

(d) The Company agrees to maintain, at its aforesaid office, books for the registration and the registration of transfer of the Warrants.

8. NO RIGHTS AS SHAREHOLDER UNTIL EXERCISE. This Warrant does not entitle the Holder to any voting rights or other rights as a shareholder of the Company prior to the exercise hereof. Upon the surrender of this Warrant and the payment of the aggregate Exercise Price or by means of a cashless exercise, the Warrant Shares so purchased shall be and be deemed to be issued to such Holder as the record owner of such shares as of the close of business on the later of the date of such surrender or payment.

9. LOSS, THEFT, DESTRUCTION OR MUTILATION OF WARRANT. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

10. SATURDAYS, SUNDAYS, HOLIDAYS, ETC. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall be a Saturday, Sunday or a legal holiday, then such action may be taken or such right may be exercised on the next succeeding day not a Saturday, Sunday or legal holiday.

11. ADJUSTMENTS OF EXERCISE PRICE AND NUMBER OF WARRANT SHARES. STOCK SPLITS, ETC. The number and kind of securities purchasable upon the exercise of this Warrant and the Exercise Price shall be subject to adjustment from time to time upon the happening of any of the following. In case the Company shall (i) pay a dividend in shares of Common Stock or make a distribution in shares of Common Stock to holders of its outstanding Common Stock, (ii) subdivide its outstanding shares of Common Stock into a greater number of shares, (iii) combine its outstanding shares of Common Stock into a smaller number of shares of Common Stock, or (iv) issue any shares of its capital stock in a reclassification of the Common Stock, then the number of Warrant Shares purchasable upon exercise of this Warrant immediately prior thereto shall be adjusted so that the Holder shall be entitled to receive the kind and number of Warrant Shares or other securities of the Company which it would have owned or have been entitled to receive had such Warrant been exercised in advance thereof. Upon each such adjustment of the kind and number of Warrant Shares or other securities of the Company which are purchasable hereunder, the Holder shall thereafter be entitled to purchase the number of Warrant Shares or other securities resulting from such adjustment at an Exercise Price per Warrant Share or other security obtained by multiplying the Exercise Price in effect immediately prior to such adjustment by the number of Warrant Shares purchasable pursuant hereto immediately prior to such adjustment and dividing by the number of Warrant Shares or other securities of the Company resulting from such adjustment. An adjustment made pursuant to this paragraph shall become effective immediately after the effective date of such event retroactive to the record date, if any, for such event.

12. REORGANIZATION, RECLASSIFICATION, MERGER, CONSOLIDATION OR DISPOSITION OF ASSETS. In case the Company shall reorganize its capital, reclassify its capital stock, consolidate or merge with or into another corporation (where the Company is not the surviving corporation or where there is a change in or distribution with respect to the Common Stock of the Company) and, pursuant to the terms of such reorganization, reclassification, merger, consolidation, shares of common stock of the successor or acquiring corporation, or any cash, shares of stock or other securities or property of any nature whatsoever (including warrants or other subscription or purchase rights) in addition to or in lieu of common stock of the successor or acquiring corporation ("Other Property"), are to be received by or distributed to the holders of Common Stock of the Company, then the Holder shall have the right thereafter to receive, upon exercise of this Warrant, the number of shares of Common Stock of the successor or acquiring corporation

or of the Company, if it is the surviving corporation, and Other Property receivable upon or as a result of such reorganization, reclassification, merger, or consolidation by a Holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such event. In case of any such reorganization, reclassification, merger or, consolidation, the successor or acquiring corporation (if other than the Company) shall expressly assume the due and punctual observance and performance of each and every covenant and condition of this Warrant to be performed and observed by the Company and all the obligations and liabilities hereunder, subject to such modifications as may be deemed appropriate (as determined in good faith by resolution of the Board of Directors of the Company) in order to provide for adjustments of Warrant Shares for which this Warrant is exercisable which shall be as nearly equivalent as practicable to the adjustments provided for in this Section 12. For purposes of this Section 12, "common stock of the successor or acquiring corporation" shall include stock of such corporation of any class which is not preferred as to dividends or assets over any other class of stock of such corporation and which is not subject to redemption and shall also include any evidences of indebtedness, shares of stock or other securities which are convertible into or exchangeable for any such stock, either immediately or upon the arrival of a specified date or the happening of a specified event and any warrants or other rights to subscribe for or purchase any such stock. The foregoing provisions of this Section 12 shall similarly apply to successive reorganizations, reclassifications, mergers, or consolidations.

13. VOLUNTARY ADJUSTMENT BY THE COMPANY. The Company may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the Board of Directors of the Company.

14. NOTICE OF ADJUSTMENT. Whenever the number of Warrant Shares or number or kind of securities or other property purchasable upon the exercise of this Warrant or the Exercise Price is adjusted, as herein provided, the Company shall promptly mail by registered or certified mail, return receipt requested, to the Holder notice of such adjustment or adjustments setting forth the number of Warrant Shares (and other securities or property) purchasable upon the exercise of this Warrant and the Exercise Price of such Warrant Shares (and other securities or property) after such adjustment, setting forth a brief statement of the facts requiring such adjustment and setting forth the computation by which such adjustment was made. Such notice, in the absence of manifest error, shall be conclusive evidence of the correctness of such adjustment.

15. NOTICE OF CORPORATE ACTION. If at any time:

(a) the Company shall take a record of the holders of its Common Stock for the purpose of entitling them to receive a dividend or other distribution, or any right to subscribe for or purchase any evidences of its indebtedness, any shares of stock of any class or any other securities or property, or to receive any other right, or

(b) there shall be any capital reorganization of the Company, any reclassification or recapitalization of the capital stock of the Company or any consolidation or merger of the Company with, or any sale, transfer or other disposition of

all or substantially all the property, assets or business of the Company to, another corporation or,

(c) there shall be a voluntary or involuntary dissolution, liquidation or winding up of the Company;

then, in any one or more of such cases, the Company shall give to Holder (i) at least 10 days' prior written notice of the date on which a record date shall be selected for such dividend, distribution or right or for determining rights to vote in respect of any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, liquidation or winding up, and (ii) in the case of any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, dissolution, liquidation or winding up, at least 10 days' prior written notice of the date when the same shall take place. Such notice in accordance with the foregoing clause also shall specify (i) the date on which any such record is to be taken for the purpose of such dividend, distribution or right, the date on which the holders of Common Stock shall be entitled to any such dividend, distribution or right, and the amount and character thereof, and (ii) the date on which any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, dissolution, liquidation or winding up is to take place and the time, if any such time is to be fixed, as of which the holders of Common Stock shall be entitled to exchange their Warrant Shares for securities or other property deliverable upon such disposition, dissolution, liquidation or winding up. Each such written notice shall be sufficiently given if addressed to Holder at the last address of Holder appearing on the books of the Company and delivered in accordance with Section 17(d).

16. AUTHORIZED SHARES. The Company covenants that during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of executing stock certificates to execute and issue the necessary certificates for the Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Principal Market upon which the Common Stock may be listed.

The Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder against impairment. Without limiting the generality of the foregoing, the Company will (a) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (b) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant, and (c) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction

thereof as may be necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

17. MISCELLANEOUS.

(a) JURISDICTION. This Warrant shall constitute a contract under the laws of New York, without regard to its conflict of law, principles or rules, and be subject to arbitration pursuant to the terms set forth in the Purchase Agreement.

(b) RESTRICTIONS. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, will have restrictions upon resale imposed by state and federal securities laws.

(c) NONWAIVER AND EXPENSES. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice Holder's rights, powers or remedies, notwithstanding all rights hereunder terminate on the Termination Date. If there is a final judgment finding that the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

(d) NOTICES. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered to the last address on the records of the Company.

(e) LIMITATION OF LIABILITY. No provision hereof, in the absence of affirmative action by Holder to purchase Warrant Shares, and no enumeration herein of the rights or privileges of Holder, shall give rise to any liability of Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

(f) REMEDIES. Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive the defense in any action for specific performance that a remedy at law would be adequate.

(g) SUCCESSORS AND ASSIGNS. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of all Holders from time to time of this Warrant and shall be enforceable by any such Holder or holder of Warrant Shares.

(h) AMENDMENT. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.

(i) SEVERABILITY. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

(j) HEADINGS. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized.

Dated: May 10, 2001

STEMCELLS, INC.

By: /s/ Martin McGlynn

Martin McGlynn, President & CEO

NOTICE OF EXERCISE

To: StemCells, Inc.

(1) The undersigned hereby elects to purchase _____ Warrant Shares (the "Common Stock"), of StemCells, Inc. pursuant to the terms of the attached Warrant, and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Please issue a certificate or certificates representing said Warrant Shares in the name of the undersigned or in such other name as is specified below:

The Warrant Shares shall be delivered to the following:

PACIFIC CREST SECURITIES, INC.

By: _____
Name:
Title:

Dated: _____

NOTICE OF EXERCISE OF COMMON STOCK WARRANT
PURSUANT TO CASHLESS EXERCISE PROVISIONS

To: StemCells, Inc.

Aggregate Price of Warrant Before Exercise: $_____
Aggregate Price Being Exercised: $_____
Exercise Price: $_____ per share
Number of Shares of Common Stock to be Issued Under this Notice: _____
Remaining Aggregate Price (if any) After Issuance: $_____

Gentlemen:

The undersigned, registered Holder of the Warrant delivered herewith, hereby irrevocably exercises such Warrant for, and purchases thereunder, shares of the Common Stock of StemCells, Inc., a Delaware corporation, as provided below. Capitalized terms used herein, unless otherwise defined herein, shall have the meanings given in the Warrant. The portion of the Exercise Price (as defined in the Warrant) to be applied toward the purchase of Common Stock pursuant to this Notice of Exercise is $_____, thereby leaving a remaining Exercise Price (if any) equal to $_____. Such exercise shall be pursuant to the cashless exercise provisions of Section 3 of the Warrant; therefore, Holder makes no payment with this Notice of Exercise. The number of shares to be issued pursuant to this exercise shall be determined by reference to the formula in Section 3 of the Warrant which, by reference to Section 3, requires the use of the high and low trading price of the Company's Common Stock on the Trading Day preceding the date of such election. The high and low trading price of the Company's Common Stock has been determined by Holder to be $_____ and $_____, respectively, which figure is acceptable to Holder for calculations of the number of shares of Common Stock issuable pursuant to this Notice of Exercise. Holder requests that the certificates for the purchased shares of Common Stock be issued in the name of _____ and delivered to _____. To the extent the foregoing exercise is for less than the full Aggregate Price of the Warrant, a replacement Warrant representing the remainder of the Aggregate Price (and otherwise of like form, tenor and effect) shall be delivered

to Holder along with the share certificate evidencing the Common Stock issued in response to this Notice of Exercise.

Pacific Crest Securities, Inc.

By:

Name:
Title:

Date:

NOTE

The execution to the foregoing Notice of Exercise must exactly correspond to the name of the Holder on the Warrant.

ASSIGNMENT FORM

(To assign the foregoing warrant, execute
this form and supply required information.
Do not use this form to exercise the warrant.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

_____ whose address is

_____.

_____

Dated: _____, _____

Holder's Signature: _____

Holder's Address: _____

_____

Signature Guaranteed: _____

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatsoever, and must be guaranteed by a bank or trust company. Officers of corporations and those acting in an fiduciary or other representative capacity should file proper evidence of authority to assign the foregoing Warrant.

NEITHER THIS WARRANT NOR THE SHARES ISSUABLE UPON EXERCISE HEREOF HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT") OR ANY OTHER APPLICABLE SECURITIES LAWS IN RELIANCE UPON AN EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND SUCH OTHER SECURITIES LAWS. NEITHER THIS WARRANT NOR THE SHARES ISSUABLE UPON EXERCISE HEREOF MAY BE SOLD, PLEDGED, TRANSFERRED, ENCUMBERED OR OTHERWISE DISPOSED OF EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR IN A TRANSACTION WHICH IS EXEMPT FROM REGISTRATION UNDER THE PROVISIONS OF THE SECURITIES ACT AND ANY APPLICABLE STATE LAWS.

STOCK PURCHASE WARRANT

To Purchase 25,000 Shares of Common Stock of

STEMCELLS, INC.

THIS CERTIFIES that, for value received, Granite Financial Group, Inc. (the "Holder"), is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after May 10, 2001 (the "Initial Exercise Date") and on or prior to the close of business on May 10, 2004 (the "Termination Date") but not thereafter, to subscribe for and purchase from StemCells, Inc., a corporation incorporated in Delaware (the "Company"), up to 25,000 shares (the "Warrant Shares") of Common Stock, $0.01 par value per share, of the Company (the "Common Stock"). The purchase price of one share of Common Stock (the "Exercise Price") under this Warrant shall be $2.3805. The Exercise Price and the number of Warrant Shares for which the Warrant is exercisable shall be subject to adjustment as provided herein. Capitalized terms used and not otherwise defined herein shall have the meanings set forth for such terms in the Common Stock Purchase Agreement, dated as of May 10, 20001, by and between the Company and Sativum Investments Limited (the "Purchase Agreement").

1. TITLE TO WARRANT. Prior to the Termination Date and subject to compliance with applicable laws, this Warrant and all rights hereunder are transferable, subject to Section 7 herein, in whole or in part, at the office or agency of the Company by the Holder in person or by duly authorized attorney, upon surrender of this Warrant together with the Assignment Form annexed hereto properly endorsed.

2. AUTHORIZATION OF SHARES. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

3. EXERCISE OF WARRANT.

(a) Except as provided in Section 4 herein, exercise of the purchase rights represented by this Warrant may be made at any time or times on or after the Initial Exercise Date and on or before the close of business on the Termination Date by the surrender of this Warrant and the Notice of Exercise Form annexed hereto duly executed, at the office of the Company (or such other office or agency of the Company as it may designate by notice in writing to the registered Holder at the address of such Holder appearing on the books of the Company) and upon payment of the Exercise Price of the shares thereby purchased by wire transfer or cashier's check drawn on a United States bank, or by means of a cashless exercise as provided in Section 3(c) below, the Holder shall be entitled to receive a certificate for the number of Warrant Shares so purchased. Certificates for shares purchased hereunder shall be delivered to the Holder within three (3) Trading Days after the date on which this Warrant shall have been exercised as aforesaid. This Warrant shall be deemed to have been exercised and such certificate or certificates shall be deemed to have been issued, and Holder or any other person so designated to be named therein shall be deemed to have become a holder of record of such shares for all purposes, as of the date the Warrant has been exercised by payment to the Company of the Exercise Price and all taxes required to be paid by the Holder, if any, pursuant to Section 5 prior to the issuance of such shares, have been paid.

(b) If this Warrant shall have been exercised in part, the Company shall, at the time of delivery of the certificate or certificates representing Warrant Shares, deliver to Holder a new Warrant evidencing the rights of Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

(c) This Warrant shall also be exercisable by means of a "cashless exercise" in which the Holder shall be entitled to receive a certificate for the number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = the average of the high and low trading prices per share of Common Stock on the Trading Day preceding the date of such election on the Nasdaq Stock Market, or if the Common Stock is not traded on the Nasdaq Stock Market, then the Principal Market in terms of volume;

(B) = the Exercise Price of this Warrant; and

(X) = the number of Warrant Shares issuable upon exercise of this Warrant in accordance with the terms of this Warrant and the Notice of Exercise.

(d) Notwithstanding anything herein to the contrary, in no event shall the Holder be permitted to exercise this Warrant for Warrant Shares to the extent that (i) the number of shares of Common Stock owned by such Holder (other than Warrant Shares issuable upon exercise of this Warrant) plus (ii) the number of Warrant Shares issuable upon exercise of this Warrant, would be equal to or exceed 9.9% of the number of shares of Common Stock then issued and outstanding, including shares issuable upon exercise of this Warrant held by such Holder after application of this Section 3(d). As used herein, beneficial ownership shall be determined in accordance with Section 13(d) of the Exchange Act. To the extent that the limitation contained in this Section 3(d) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder) and of which a portion of this Warrant is exercisable shall be in the sole discretion of such Holder, and the submission of a Notice of Exercise shall be deemed to be such Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by such Holder) and of which portion of this Warrant is exercisable, in each case subject to such aggregate percentage limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. Nothing contained herein shall be deemed to restrict the right of a Holder to exercise this Warrant into Warrant Shares at such time as such exercise will not violate the provisions of this Section 3(d). The provisions of this Section 3(d) may be waived by the Holder upon, at the election of the Holder, with not less than 61 days' prior notice to the Company, and the provisions of this Section 3(d) shall continue to apply until such 61st day (or such later date as may be specified in such notice of waiver). No exercise of this Warrant in violation of this Section 3(d) but otherwise in accordance with this Warrant shall affect the status of the Warrant Shares as validly issued, fully-paid and nonassessable.

4. NO FRACTIONAL SHARES OR SCRIP. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which Holder would otherwise be entitled to purchase upon such exercise, the Company shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price.

5. CHARGES, TAXES AND EXPENSES. Issuance of certificates for Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such certificate, all of which taxes and expenses shall be

paid by the Company, and such certificates shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; PROVIDED, HOWEVER, that in the event certificates for Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder; and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto.

6. CLOSING OF BOOKS. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant.

7. TRANSFER, DIVISION AND COMBINATION.

(a) Subject to compliance with any applicable securities laws, transfer of this Warrant and all rights hereunder, in whole and not in part, shall be registered on the books of the Company to be maintained for such purpose, upon surrender of this Warrant at the principal office of the Company, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. A Warrant, if properly assigned, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

(b) This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 7(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice.

(c) The Company shall prepare, issue and deliver at its own expense (other than transfer taxes) the new Warrant or Warrants under this Section 7.

(d) The Company agrees to maintain, at its aforesaid office, books for the registration and the registration of transfer of the Warrants.

8. NO RIGHTS AS SHAREHOLDER UNTIL EXERCISE. This Warrant does not entitle the Holder to any voting rights or other rights as a shareholder of the Company prior to the exercise hereof. Upon the surrender of this Warrant and the payment of the aggregate Exercise Price or by means of a cashless exercise, the Warrant Shares so purchased shall be and be deemed to be issued to such Holder as the record owner of such shares as of the close of business on the later of the date of such surrender or payment.

9. LOSS, THEFT, DESTRUCTION OR MUTILATION OF WARRANT. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

10. SATURDAYS, SUNDAYS, HOLIDAYS, ETC. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall be a Saturday, Sunday or a legal holiday, then such action may be taken or such right may be exercised on the next succeeding day not a Saturday, Sunday or legal holiday.

11. ADJUSTMENTS OF EXERCISE PRICE AND NUMBER OF WARRANT SHARES. STOCK SPLITS, ETC. The number and kind of securities purchasable upon the exercise of this Warrant and the Exercise Price shall be subject to adjustment from time to time upon the happening of any of the following. In case the Company shall (i) pay a dividend in shares of Common Stock or make a distribution in shares of Common Stock to holders of its outstanding Common Stock, (ii) subdivide its outstanding shares of Common Stock into a greater number of shares, (iii) combine its outstanding shares of Common Stock into a smaller number of shares of Common Stock, or (iv) issue any shares of its capital stock in a reclassification of the Common Stock, then the number of Warrant Shares purchasable upon exercise of this Warrant immediately prior thereto shall be adjusted so that the Holder shall be entitled to receive the kind and number of Warrant Shares or other securities of the Company which it would have owned or have been entitled to receive had such Warrant been exercised in advance thereof. Upon each such adjustment of the kind and number of Warrant Shares or other securities of the Company which are purchasable hereunder, the Holder shall thereafter be entitled to purchase the number of Warrant Shares or other securities resulting from such adjustment at an Exercise Price per Warrant Share or other security obtained by multiplying the Exercise Price in effect immediately prior to such adjustment by the number of Warrant Shares purchasable pursuant hereto immediately prior to such adjustment and dividing by the number of Warrant Shares or other securities of the Company resulting from such adjustment. An adjustment made pursuant to this paragraph shall become effective immediately after the effective date of such event retroactive to the record date, if any, for such event.

12. REORGANIZATION, RECLASSIFICATION, MERGER, CONSOLIDATION OR DISPOSITION OF ASSETS. In case the Company shall reorganize its capital, reclassify its capital stock, consolidate or merge with or into another corporation (where the Company is not the surviving corporation or where there is a change in or distribution with respect to the Common Stock of the Company) and, pursuant to the terms of such reorganization, reclassification, merger, consolidation, shares of common stock of the successor or acquiring corporation, or any cash, shares of stock or other securities or property of any nature whatsoever (including warrants or other subscription or purchase rights) in addition to or in lieu of common stock of the successor or acquiring corporation ("Other Property"), are to be received by or distributed to the holders of Common Stock of the Company, then the Holder shall have the right thereafter to receive, upon exercise of this Warrant, the number of shares of Common Stock of the successor or acquiring corporation

or of the Company, if it is the surviving corporation, and Other Property receivable upon or as a result of such reorganization, reclassification, merger, or consolidation by a Holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such event. In case of any such reorganization, reclassification, merger or, consolidation, the successor or acquiring corporation (if other than the Company) shall expressly assume the due and punctual observance and performance of each and every covenant and condition of this Warrant to be performed and observed by the Company and all the obligations and liabilities hereunder, subject to such modifications as may be deemed appropriate (as determined in good faith by resolution of the Board of Directors of the Company) in order to provide for adjustments of Warrant Shares for which this Warrant is exercisable which shall be as nearly equivalent as practicable to the adjustments provided for in this Section 12. For purposes of this Section 12, "common stock of the successor or acquiring corporation" shall include stock of such corporation of any class which is not preferred as to dividends or assets over any other class of stock of such corporation and which is not subject to redemption and shall also include any evidences of indebtedness, shares of stock or other securities which are convertible into or exchangeable for any such stock, either immediately or upon the arrival of a specified date or the happening of a specified event and any warrants or other rights to subscribe for or purchase any such stock. The foregoing provisions of this Section 12 shall similarly apply to successive reorganizations, reclassifications, mergers, or consolidations.

13. VOLUNTARY ADJUSTMENT BY THE COMPANY. The Company may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the Board of Directors of the Company.

14. NOTICE OF ADJUSTMENT. Whenever the number of Warrant Shares or number or kind of securities or other property purchasable upon the exercise of this Warrant or the Exercise Price is adjusted, as herein provided, the Company shall promptly mail by registered or certified mail, return receipt requested, to the Holder notice of such adjustment or adjustments setting forth the number of Warrant Shares (and other securities or property) purchasable upon the exercise of this Warrant and the Exercise Price of such Warrant Shares (and other securities or property) after such adjustment, setting forth a brief statement of the facts requiring such adjustment and setting forth the computation by which such adjustment was made. Such notice, in the absence of manifest error, shall be conclusive evidence of the correctness of such adjustment.

15. NOTICE OF CORPORATE ACTION. If at any time:

(a) the Company shall take a record of the holders of its Common Stock for the purpose of entitling them to receive a dividend or other distribution, or any right to subscribe for or purchase any evidences of its indebtedness, any shares of stock of any class or any other securities or property, or to receive any other right, or

(b) there shall be any capital reorganization of the Company, any reclassification or recapitalization of the capital stock of the Company or any consolidation or merger of the Company with, or any sale, transfer or other disposition of

all or substantially all the property, assets or business of the Company to, another corporation or,

(c) there shall be a voluntary or involuntary dissolution, liquidation or winding up of the Company;

then, in any one or more of such cases, the Company shall give to Holder (i) at least 10 days' prior written notice of the date on which a record date shall be selected for such dividend, distribution or right or for determining rights to vote in respect of any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, liquidation or winding up, and (ii) in the case of any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, dissolution, liquidation or winding up, at least 10 days' prior written notice of the date when the same shall take place. Such notice in accordance with the foregoing clause also shall specify (i) the date on which any such record is to be taken for the purpose of such dividend, distribution or right, the date on which the holders of Common Stock shall be entitled to any such dividend, distribution or right, and the amount and character thereof, and (ii) the date on which any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, dissolution, liquidation or winding up is to take place and the time, if any such time is to be fixed, as of which the holders of Common Stock shall be entitled to exchange their Warrant Shares for securities or other property deliverable upon such disposition, dissolution, liquidation or winding up. Each such written notice shall be sufficiently given if addressed to Holder at the last address of Holder appearing on the books of the Company and delivered in accordance with Section 17(d).

16. AUTHORIZED SHARES. The Company covenants that during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of executing stock certificates to execute and issue the necessary certificates for the Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Principal Market upon which the Common Stock may be listed.

The Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder against impairment. Without limiting the generality of the foregoing, the Company will (a) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (b) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant, and (c) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction

thereof as may be necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

17. MISCELLANEOUS.

(a) JURISDICTION. This Warrant shall constitute a contract under the laws of New York, without regard to its conflict of law, principles or rules, and be subject to arbitration pursuant to the terms set forth in the Purchase Agreement.

(b) RESTRICTIONS. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, will have restrictions upon resale imposed by state and federal securities laws.

(c) NONWAIVER AND EXPENSES. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice Holder's rights, powers or remedies, notwithstanding all rights hereunder terminate on the Termination Date. If there is a final judgment finding that the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

(d) NOTICES. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered to the last address on the records of the Company.

(e) LIMITATION OF LIABILITY. No provision hereof, in the absence of affirmative action by Holder to purchase Warrant Shares, and no enumeration herein of the rights or privileges of Holder, shall give rise to any liability of Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

(f) REMEDIES. Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive the defense in any action for specific performance that a remedy at law would be adequate.

(g) SUCCESSORS AND ASSIGNS. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of all Holders from time to time of this Warrant and shall be enforceable by any such Holder or holder of Warrant Shares.

(h) AMENDMENT. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.

(i) SEVERABILITY. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

(j) HEADINGS. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized.

Dated: May 10, 2001

STEMCELLS, INC.

By: /s/ Martin McGlynn

Martin McGlynn, President & CEO

NOTICE OF EXERCISE

To: StemCells, Inc.

(1) The undersigned hereby elects to purchase _____ Warrant Shares (the "Common Stock"), of StemCells, Inc. pursuant to the terms of the attached Warrant, and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Please issue a certificate or certificates representing said Warrant Shares in the name of the undersigned or in such other name as is specified below:

The Warrant Shares shall be delivered to the following:

GRANITE FINANCIAL GROUP, INC.

By: _____
Name:
Title:

Dated: _____

NOTICE OF EXERCISE OF COMMON STOCK WARRANT
PURSUANT TO CASHLESS EXERCISE PROVISIONS

To: StemCells, Inc.

Aggregate Price of Warrant Before Exercise: $_____
Aggregate Price Being Exercised: $_____
Exercise Price: $_____ per share
Number of Shares of Common Stock to be Issued Under this Notice: _____
Remaining Aggregate Price (if any) After Issuance: $_____

Gentlemen:

The undersigned, registered Holder of the Warrant delivered herewith, hereby irrevocably exercises such Warrant for, and purchases thereunder, shares of the Common Stock of StemCells, Inc., a Delaware corporation, as provided below. Capitalized terms used herein, unless otherwise defined herein, shall have the meanings given in the Warrant. The portion of the Exercise Price (as defined in the Warrant) to be applied toward the purchase of Common Stock pursuant to this Notice of Exercise is $_____, thereby leaving a remaining Exercise Price (if any) equal to $_____. Such exercise shall be pursuant to the cashless exercise provisions of Section 3 of the Warrant; therefore, Holder makes no payment with this Notice of Exercise. The number of shares to be issued pursuant to this exercise shall be determined by reference to the formula in Section 3 of the Warrant which, by reference to Section 3, requires the use of the high and low trading price of the Company's Common Stock on the Trading Day preceding the date of such election. The high and low trading price of the Company's Common Stock has been determined by Holder to be $_____ and $_____, respectively, which figure is acceptable to Holder for calculations of the number of shares of Common Stock issuable pursuant to this Notice of Exercise. Holder requests that the certificates for the purchased shares of Common Stock be issued in the name of _____ and delivered to _____. To the extent the foregoing exercise is for less than the full Aggregate Price of the Warrant, a replacement Warrant representing the remainder of the Aggregate Price (and otherwise of like form, tenor and effect) shall be delivered

to Holder along with the share certificate evidencing the Common Stock issued in response to this Notice of Exercise.

Granite Financial Group, Inc.

By:

Name:
Title:

Date:

NOTE

The execution to the foregoing Notice of Exercise must exactly correspond to the name of the Holder on the Warrant.

ASSIGNMENT FORM

(To assign the foregoing warrant, execute
this form and supply required information.
Do not use this form to exercise the warrant.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

_____ whose address is

_____.

_____

Dated: _____, _____

Holder's Signature:_____

Holder's Address:_____

_____

Signature Guaranteed: _____

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatsoever, and must be guaranteed by a bank or trust company. Officers of corporations and those acting in an fiduciary or other representative capacity should file proper evidence of authority to assign the foregoing Warrant.

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-1 (the "Registration Statement"), filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended, for the registration of up to 10,350,000 shares of Common Stock, $0.01 par value (the "Shares"), of StemCells, Inc., a Delaware corporation (the "Company"). The Shares are to be sold to Sativum Investments Limited, a British Virgin Islands corporation ("Sativum"), pursuant to a common stock purchase agreement dated as of May 10, 2001 (the "Purchase Agreement"), between the Company and Sativum and registered for resale by Sativum 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 Purchase Agreement, 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

COMMON STOCK PURCHASE AGREEMENT

This COMMON STOCK PURCHASE AGREEMENT (this "Agreement") is dated as of May 10, 2001 by and between StemCells, Inc., a Delaware corporation (the "Company") and Sativum Investments Limited (the "Purchaser"), a British Virgin Islands corporation.

WHEREAS, the parties desire that, upon the terms and subject to the conditions contained herein, the Company shall issue and sell to Purchaser from time to time as provided herein, and Purchaser shall purchase, up to $30,000,000 of Common Stock and the Warrant; and

WHEREAS, such investments will be made by the Purchaser as statutory underwriter of a registered indirect primary offering of such Common Stock by the Company.

NOW, THEREFORE, in consideration of the foregoing premises, and the promises and covenants herein contained, the receipt and sufficiency of which are hereby acknowledged by the parties hereto, the parties, intending to be legally bound, hereby agree as follows:

ARTICLE 1

PURCHASE AND SALE OF COMMON STOCK

Section 1.1. PURCHASE AND SALE OF STOCK. Subject to the terms and conditions of this Agreement, the Company may sell and issue to the Purchaser and the Purchaser shall be obligated to purchase from the Company, up to an aggregate of $30,000,000 of Common Stock (the "Commitment Amount") and the Warrant, subject to the terms herein.

Section 1.2. PURCHASE PRICE AND INITIAL CLOSING. The Company agrees to issue and sell to the Purchaser and, in consideration of and in express reliance upon the representations, warranties, covenants, terms and conditions of this Agreement, the Purchaser agrees to purchase that number of the Shares to be issued in connection with each Draw Down. The delivery of executed documents under this Agreement and the other agreements referred to herein and the payment of the fees set forth in Article I of the Escrow Agreement, attached as EXHIBIT B hereto, (the "Initial Closing") shall take place at the offices of Epstein Becker & Green, P.C., 250 Park Avenue, New York, New York 10177 (i) within five (5) days from the date hereof, or (ii) such other time and place or on such date as the Purchaser and the Company may agree upon (the "Initial Closing Date"). Each party shall deliver all documents, instruments and writings required to be delivered by such party pursuant to this Agreement at or prior to the Initial Closing.

Section 1.3. LIQUIDATED DAMAGES. The parties hereto acknowledge and agree that the sums payable pursuant to this Agreement for late delivery of the Draw Down Shares and the Registration Rights Agreement for a suspension of the Registration Statement or the Purchaser's right to resell the Draw Down Shares thereunder shall constitute liquidated damages and not penalties. The parties further acknowledge that (a) the amount of loss or damages likely to be incurred is incapable or is difficult to precisely estimate, (b) the amount specified in such provisions bear a reasonable proportion and are not plainly or grossly disproportionate to the probable loss likely to be incurred by the Purchaser in connection with the failure of the Company to deliver the Draw Down Shares in a timely manner or the suspension of the Purchaser's rights to resell the Draw Down Shares under the Registration Statement, and (c) the parties are sophisticated businesses and have been represented by sophisticated and able legal and financial counsel and negotiated this Agreement at arm's length.

ARTICLE 2

REPRESENTATIONS AND WARRANTIES

Section 2.1. REPRESENTATION AND WARRANTIES OF THE COMPANY. The Company hereby represents and warrants to the Purchaser as follows, except as set forth in the SEC Documents or on the Disclosure Schedule prepared by the Company and attached hereto, or as contemplated by this Agreement:

(a) ORGANIZATION, GOOD STANDING AND POWER. The Company is a corporation duly incorporated validly existing and in good standing under the laws of Delaware and has all requisite corporate authority to own, lease and operate its properties and assets and to carry on its business as now being conducted. The Company does not have any subsidiaries and does not own more than fifty percent (50%) of or control any other business entity except as set forth in the SEC Documents. The Company is duly qualified to do business and is in good standing as a foreign corporation in every jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, other than those in which the failure so to qualify would not have a Material Adverse Effect.

(b) AUTHORIZATION, ENFORCEMENT. (i) The Company has the requisite corporate power and corporate authority to enter into and perform its obligations under the Transaction Documents and to issue the Draw Down Shares pursuant to their respective terms, (ii) the execution and delivery of the Transaction Documents by the Company and the consummation by it of the transactions contemplated hereby and thereby have been duly authorized by all necessary corporate action and no further consent or authorization of the Company or its Board of Directors or stockholders is required, and (iii) the Transaction Documents have been duly executed and delivered by the Company and at the Initial Closing shall constitute valid and binding obligations of the Company enforceable against the Company in accordance with their terms, except as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium, liquidation, conservatorship, receivership or similar laws relating to, or

affecting generally the enforcement of, creditors' rights and remedies or by other equitable principles of general application.

(c) CAPITALIZATION. As of the date hereof, the authorized capital stock of the Company consists of 45,000,000 shares of Common Stock of which 21,470,385 shares are issued and outstanding and 1,000,000 shares of Convertible Preferred Stock of which 1,500 are issued and outstanding. All of the outstanding shares of the Company's Common Stock have been duly and validly authorized and are fully paid and non-assessable except as set forth in the SEC Documents. No shares of Common Stock are entitled to preemptive rights or registration rights and there are no outstanding options, warrants, scrip, rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities or rights convertible into, any shares of capital stock of the Company. There are no contracts, commitments, understandings, or arrangements by which the Company is or may become bound to issue additional shares of the capital stock of the Company or options, securities or rights convertible into shares of capital stock of the Company. The Company is not a party to any agreement granting registration rights to any person with respect to any of its equity or debt securities. The Company is not a party to, and it has no knowledge of, any agreement restricting the voting or transfer of any shares of the capital stock of the Company. The Company has made available to the Purchaser true and correct copies of the Company's articles or certificate of incorporation as in effect on the date hereof (the "Charter"), and the Company's bylaws as in effect on the date hereof (the "Bylaws"). The Company has not received any notice from the Principal Market questioning or threatening the continued inclusion of the Common Stock on such market.

(d) ISSUANCE OF SHARES. The Warrant Shares to be issued under this Agreement have been duly authorized by all necessary corporate action and, when paid for and issued in accordance with the terms hereof and the Warrant, the Warrant Shares shall be validly issued and outstanding, fully paid and non-assessable, and the Purchaser shall be entitled to all rights accorded to a holder of Common Stock.

(e) NO CONFLICTS. The execution, delivery and performance of this Agreement by the Company and the consummation by the Company of the transactions contemplated herein do not and will not (i) violate any provision of the Company's Charter or Bylaws, (ii) conflict with, or constitute a default (or an event which with notice or lapse of time or both would become a default) under, or give to others any rights of termination, amendment, acceleration or cancellation of, any agreement, mortgage, deed of trust, indenture, note, bond, license, lease agreement, instrument or obligation to which the Company is a party, (iii) create or impose a lien, charge or encumbrance on any property of the Company under any agreement or any commitment to which the Company is a party or by which the Company is bound or by which any of its respective properties or assets are bound, or (iv) result in a violation of any federal, state, local or other foreign statute, rule, regulation, order, judgment or decree (including any federal or state securities laws and regulations) applicable to the Company or any of its subsidiaries or by which any property or asset of the Company or any of its subsidiaries are bound or affected, except, in all cases, for such conflicts, defaults, termination, amendments,

accelerations, cancellations and violations as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect. The business of the Company and its subsidiaries is not being conducted in violation of any laws, ordinances or regulations of any governmental entity, except for violations which singularly or in the aggregate do not and will not have a Material Adverse Effect. The Company is not required under any federal, state or local law, rule or regulation to obtain any consent, authorization or order of, or make any filing or registration with, any court or governmental agency in order for it to execute, deliver or perform any of its obligations under this Agreement, or issue and sell the Shares in accordance with the terms hereof (other than any filings which may be required to be made by the Company with the SEC or state securities administrators and any registration statement which may be filed pursuant hereto); PROVIDED, HOWEVER, that for purpose of the representations made in this sentence, the Company is assuming and relying upon the accuracy of the relevant representations and agreements of the Purchaser herein.

(f) SEC DOCUMENTS, FINANCIAL STATEMENTS. The Common Stock of the Company is registered pursuant to Section 12(g) of the Exchange Act, and, the Company is current with all reports, schedules, forms, statements and other documents required to be filed by it with the SEC pursuant to the reporting requirements of the Exchange Act, including material filed pursuant to Section 13(a) or 15(d) of the Exchange Act. The Company has delivered or made available to the Purchaser, through the EDGAR system or otherwise, true and complete copies of the SEC Documents filed with the SEC since December 31, 1998. The Company has not provided to the Purchaser any information which, according to applicable law, rule or regulation, should have been disclosed publicly by the Company but which has not been so disclosed, other than with respect to the transactions contemplated by this Agreement. As of their respective filing dates, the SEC Documents complied in all material respects with the requirements of the Exchange Act or the Securities Act, as applicable, and the rules and regulations of the SEC promulgated thereunder applicable to such documents, and, as of their respective filing dates, none of the SEC Documents contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. The financial statements of the Company included in the SEC Documents comply as to form in all material respects with applicable accounting requirements under GAAP and the published rules and regulations of the SEC or other applicable rules and regulations with respect thereto. Such financial statements have been prepared in accordance with GAAP applied on a consistent basis during the periods involved (except (i) as may be otherwise indicated in such financial statements or the notes thereto or (ii) in the case of unaudited interim statements, to the extent they may not include footnotes or may be condensed or summary statements), and fairly present in all material respects the financial position of the Company and its subsidiaries as of the dates thereof and the results of operations and cash flows for the periods then ended (subject, in the case of unaudited statements, to normal year-end audit adjustments).

(g) SUBSIDIARIES. The SEC Documents or the Disclosure Schedule attached hereto sets forth each subsidiary of the Company, showing the jurisdiction of its

incorporation or organization and showing the percentage of the Company's ownership of the outstanding stock or other interests of such subsidiary. For the purposes of this Agreement, "subsidiary" shall mean any corporation or other entity of which at least a majority of the securities or other ownership interests having ordinary voting power (absolutely or contingently) for the election of directors or other persons performing similar functions are at the time owned directly or indirectly by the Company and/or any of its other subsidiaries. All of the issued and outstanding shares of capital stock of each subsidiary have been duly authorized and validly issued, and are fully paid and non-assessable. There are no outstanding preemptive, conversion or other rights, options, warrants or agreements granted or issued by or binding upon any subsidiary for the purchase or acquisition of any shares of capital stock of any subsidiary or any other securities convertible into, exchangeable for or evidencing the rights to subscribe for any shares of such capital stock. Neither the Company nor any subsidiary is subject to any obligation (contingent or otherwise) to repurchase or otherwise acquire or retire any shares of the capital stock of any subsidiary or any convertible securities, rights, warrants or options of the type described in the preceding sentence. Neither the Company nor any subsidiary is a party to, nor has any knowledge of, any agreement restricting the voting or transfer of any shares of the capital stock of any subsidiary.

(h) NO MATERIAL ADVERSE EFFECT. Since the date of the financial statement contained in the most recently filed Form 10-Q (or 10-QSB) or Form 10-K (or 10-KSB), whichever is most current, no Material Adverse Effect has occurred or exists with respect to the Company, except as disclosed in the SEC Documents or on the Disclosure Schedule attached hereto.

(i) NO UNDISCLOSED LIABILITIES. Neither the Company nor any of its subsidiaries has any liabilities, obligations, claims or losses (whether liquidated or unliquidated, secured or unsecured, absolute, accrued, contingent or otherwise) that would be required to be disclosed on a balance sheet of the Company or any subsidiary (including the notes thereto) in conformity with GAAP which are not disclosed in the SEC Documents, other than those incurred in the ordinary course of the Company's or its subsidiaries' respective businesses since such date or which, individually or in the aggregate, do not or would not have a Material Adverse Effect on the Company or its subsidiaries.

(j) NO UNDISCLOSED EVENTS OR CIRCUMSTANCES. Since the date of the financial statement contained in the most recently filed Form 10- Q (or 10-QSB) or Form 10-K (or 10-KSB), whichever is most current, no event or circumstance has occurred or exists with respect to the Company or its businesses, properties, prospects, operations or financial condition, that, under applicable law, rule or regulation, requires public disclosure or announcement prior to the date hereof by the Company but which has not been so publicly announced or disclosed in the SEC Documents.

(k) INDEBTEDNESS. The SEC Documents (including the financial statements included therein) or the Disclosure Schedule attached hereto sets forth as of the date hereof all outstanding secured and unsecured Indebtedness of the Company or

any subsidiary, or for which the Company or any subsidiary has commitments. For the purposes of this Agreement, "Indebtedness" shall mean (A) any liabilities for borrowed money in excess of $500,000 (other than trade accounts payable incurred in the ordinary course of business), (B) all guaranties, endorsements and contingent obligations in respect of Indebtedness of others, whether or not the same are or should be reflected in the Company's balance sheet (or the notes thereto), except guaranties by endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of business; and (C) any lease payments with a present value in excess of $500,000 due under leases required to be capitalized in accordance with GAAP. Neither the Company nor any subsidiary is in default with respect to any Indebtedness.

(l) TITLE TO ASSETS. Each of the Company and the subsidiaries has good and marketable title to all of its real and personal property reflected in the SEC Documents, free of any mortgages, pledges, charges, liens, security interests or other encumbrances, except such that do not cause a Material Adverse Effect. All real property leases of the Company and each of its subsidiaries are valid and subsisting and in full force and effect.

(m) ACTIONS PENDING. There is no action, suit, claim, investigation or proceeding pending or, to the knowledge of the Company, threatened against the Company or any subsidiary which questions the validity of this Agreement or the transactions contemplated hereby or any action taken or to be taken pursuant hereto or thereto. There is no action, suit, claim, investigation or proceeding pending or, to the knowledge of the Company, threatened, against or involving the Company, any subsidiary or any of their respective properties or assets, which action, suit, claim, investigation or proceeding would reasonably be expected to have a Material Adverse Effect. There are no outstanding orders, judgments, injunctions, awards or decrees of any court, arbitrator or governmental or regulatory body against the Company or any subsidiary except those orders, judgments, injunctions, awards or decrees which would not reasonably be expected to have a Material Adverse Effect.

(n) COMPLIANCE WITH LAW. The Company and each of its subsidiaries have all franchises, permits, licenses, consents and other governmental or regulatory authorizations and approvals necessary for the conduct of their respective businesses as now being conducted by them unless the failure to possess such franchises, permits, licenses, consents and other governmental or regulatory authorizations and approvals, individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect.

(o) TAXES. The Company and each subsidiary has filed all Tax Returns which it is required to file under applicable laws; except as set forth in the SEC Documents the Company and each subsidiary have paid, or had paid on its or their behalf, all Taxes shown as due on such Tax Returns and has withheld and paid over to the appropriate taxing authorities all Taxes which it is required to withhold from amounts paid or owing to any employee, stockholder, creditor or other third parties; and since December 31, 1999, the charges, accruals and reserves for Taxes with respect to the

Company (including any provisions for deferred income taxes) reflected on the books of the Company are to its knowledge adequate to cover any Tax liabilities of the Company if its current tax year were treated as ending on the date hereof.

No claim has been made by a taxing authority in a jurisdiction where the Company does not file tax returns that the Company or any subsidiary is or may be subject to taxation by that jurisdiction. Except as set forth in the SEC Documents, there are no foreign, federal, state or local tax audits or administrative or judicial proceedings pending or being conducted with respect to the Company or any subsidiary.

The Company has not made an election under Section 341 (f) of the Internal Revenue Code. The Company is not liable for the Taxes of another person that is not a subsidiary of the Company under (A) Treas. Reg. Section 1.1502-6 (or comparable provisions of state, local or foreign law), (B) as a transferee or successor, (C) by contract or indemnity or (D) otherwise.

For purposes of this Section 2.1(o):

"IRS" means the United States Internal Revenue Service.

"TAX" or "TAXES" means federal, state, county, local, foreign, or other income, gross receipts, ad valorem, franchise, profits, sales or use, transfer, registration, excise, utility, environmental, communications, real or personal property, capital stock, license, payroll, wage or other withholding, employment, social security, severance, stamp, occupation, alternative or add-on minimum, estimated and similar taxes (including, without limitation, deficiencies, penalties, additions to tax, and interest attributable thereto) whether disputed or not.

"TAX RETURN" means any return, information report or filing with respect to Taxes, including any schedules attached thereto and including any amendment thereof.

(p) CERTAIN FEES. Except for the fees paid to Pacific Crest Securities Inc. pursuant to the Engagement Letter, no brokers, finders or financial advisory fees or commissions will be payable by the Company or any subsidiary with respect to the transactions contemplated by this Agreement.

(q) OPERATION OF BUSINESS. The Company and each of the subsidiaries owns or possesses all patents, trademarks, service marks, trade names, copyrights, licenses and authorizations as set forth in the SEC Documents or the Disclosure Schedule attached hereto, and all rights with respect to the foregoing, which to its knowledge would be reasonably necessary for the conduct of its business as now conducted without any conflict with the rights of others.

(r) BOOKS AND RECORDS. The records and documents of the Company and its subsidiaries accurately reflect in all material respects the information relating to the business of the Company and the subsidiaries contained therein.

(s) MATERIAL AGREEMENTS. The Company and each of its subsidiaries has in all material respects performed all the obligations required to be performed by them to date under the foregoing agreements, have received no notice of default and, to the best of the Company's knowledge are not in default under any Material Agreement now in effect, the result of which would cause a Material Adverse Effect. No written or oral contract, instrument, agreement, commitment, obligation, plan or arrangement of the Company or of any subsidiary limits or shall limit the payment of dividends on the Company's Common Stock.

(t) TRANSACTIONS WITH AFFILIATES. There are no loans, leases, agreements, contracts, royalty agreements, management contracts or arrangements or other continuing transactions exceeding $100,000 between (A) the Company, any subsidiary or any of their respective customers or suppliers on the one hand, and (B) on the other hand, any officer, employee, consultant or director of the Company, or any of its subsidiaries, or any person owning 5% or more of the capital stock of the Company or any subsidiary or any member of the immediate family of such officer, employee, consultant, director or stockholder or any corporation or other entity controlled by such officer, employee, consultant, director or stockholder, or a member of the immediate family of such officer, employee, consultant, director or stockholder.

(u) SECURITIES LAWS. The Company has complied and will comply with all applicable federal and state securities laws in connection with the offer, issuance and sale of the Shares hereunder. Neither the Company nor anyone acting on its behalf, directly or indirectly, has or will sell, offer to sell or solicit offers to buy the Shares or similar securities to, or solicit offers with respect thereto from, or enter into any preliminary conversations or negotiations relating thereto with, any person (other than the Purchaser), so as to bring the issuance and sale of the Shares under the registration provisions of the Securities Act and applicable state securities laws. Neither the Company nor any of its affiliates, nor any person acting on its or their behalf, has engaged in any form of general solicitation or general advertising (within the meaning of Regulation D under the Securities Act) in connection with the offer or sale of the Shares.

(v) EMPLOYEES. Neither the Company nor any subsidiary has any collective bargaining arrangements or agreements covering any of its employees. Neither the Company nor any subsidiary is in breach of any employment contract, agreement regarding proprietary information, noncompetition agreement, nonsolicitation agreement, confidentiality agreement, or any other similar contract or restrictive covenant, relating to the right of any officer to be employed or engaged by the Company or such subsidiary. Since the date of the December 31, 2000 Form 10-K (or 10-KSB), no officer, consultant or key employee of the Company or any subsidiary whose termination, either individually or in the aggregate, could have a Material Adverse Effect, has terminated or, to the

knowledge of the Company, has any present intention of terminating his or her employment or engagement with the Company or any subsidiary.

(w) ABSENCE OF CERTAIN DEVELOPMENTS. Since the date of the financial statement contained in the most recently filed Form 10-Q (or 10-QSB) or Form 10-K (or 10KSB), whichever is most current, neither the Company nor any subsidiary has done any of the following, if such occurrences could reasonably be expected to have a Material Adverse Effect:

(i) issued any stock, bonds or other corporate securities or any rights, options or warrants with respect thereto, except for issuances of shares of stock pursuant to options or warrants outstanding on the date hereof or issuance of stock options pursuant to a stock option plan;

(ii) borrowed any amount or incurred or become subject to any liabilities (absolute or contingent) except amounts borrowed or liabilities incurred in the ordinary course of business;

(iii) discharged or satisfied any lien or encumbrance or paid any obligation or liability (absolute or contingent), other than liabilities paid in the ordinary course of business;

(iv) declared or made any payment or distribution of cash or other property to stockholders with respect to its stock, or purchased or redeemed, or made any agreements so to purchase or redeem, any shares of its capital stock;

(v) sold, assigned or transferred any other tangible assets, or canceled any debts or claims, except in the ordinary course of business;

(vi) sold, assigned or transferred any patent rights, trademarks, trade names, copyrights, trade secrets or other intangible assets or intellectual property rights, or disclosed any proprietary confidential information to any person except to customers in the ordinary course of business, to persons bound by agreements restricting disclosure of such proprietary confidential information or to the Purchaser or its representatives;

(vii) made any changes in employee compensation except in the ordinary course of business and consistent with past practices;

(viii) made capital expenditures or commitments therefor that aggregate in excess of $500,000;

(ix) entered into any other material transaction required to be disclosed in the SEC Documents, whether or not in the ordinary course of business;

(x) suffered any material damage, destruction or casualty loss, whether or not covered by insurance;

(xi) experienced any material problems with labor or management in connection with the terms and conditions of their employment; or

(xii) effected any two or more events of the foregoing kind which in the aggregate would be material to the Company or its subsidiaries.

(x) GOVERNMENTAL APPROVALS. Except for the filing of any notice prior or subsequent to any Settlement Date that may be required under applicable federal or state securities laws (which if required, shall be filed on a timely basis), including the filing of a registration statement or post-effective amendment pursuant to this Agreement, no authorization, consent, approval, license, exemption of, filing or registration with any court or governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, is or will be necessary for, or in connection with, the delivery of the Shares, or for the performance by the Company of its obligations under this Agreement.

(aa) ACKNOWLEDGMENT REGARDING PURCHASER'S PURCHASE OF SHARES. Company acknowledges and agrees that Purchaser is acting solely in the capacity of arm's length purchaser with respect to this Agreement and the transactions contemplated hereunder. The Company further acknowledges that the Purchaser is not acting as a financial advisor or fiduciary of the Company (or in any similar capacity) with respect to this Agreement and the transactions contemplated hereunder. The Company further represents to the Purchaser that the Company's decision to enter into this Agreement has been based solely on (a) the Purchaser's representations and warranties in Section 2.2, and (b) the independent evaluation by the Company and its own representatives and counsel.

Section 2.2. REPRESENTATIONS AND WARRANTIES OF THE PURCHASER. The Purchaser hereby makes the following representations and warranties to the Company:

(a) ORGANIZATION AND STANDING OF THE PURCHASER. The Purchaser is a corporation duly incorporated, validly existing and in good standing under the laws of the British Virgin Islands.

(b) AUTHORIZATION AND POWER. The Purchaser has the requisite power and authority to enter into and perform the Transaction Documents and to purchase the Shares. The execution, delivery and performance of the Transaction Documents by Purchaser and the consummation by it of the transactions contemplated hereby have been duly authorized by all necessary corporate action and at the Initial Closing shall constitute valid and binding obligations of the Purchaser enforceable against the Purchaser in accordance with their terms, except as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium, liquidation, conservatorship, receivership or similar laws relating to, or affecting generally the enforcement of, creditors' rights and remedies or by other equitable principles of general application

(c) NO CONFLICTS. The execution, delivery and performance of this Agreement and the consummation by the Purchaser of the transactions contemplated hereby or relating hereto do not and will not (i) result in a violation of the Purchaser's charter documents or bylaws or (ii) conflict with, or constitute a default (or an event which with notice or lapse of time or both would become a default) under, or give to others any rights of termination, amendment, acceleration or cancellation of any agreement, indenture or instrument to which the Purchaser is a party, or result in a violation of any law, rule, or regulation, or any order, judgment or decree of any court or governmental agency applicable to the Purchaser or its properties (except for such conflicts, defaults and violations as would not, individually or in the aggregate, have a Material Adverse Effect on Purchaser). The Purchaser is not required to obtain any consent, authorization or order of, or make any filing or registration with, any court or governmental agency in order for it to execute, deliver or perform any of its obligations under this Agreement or to purchase the Shares in accordance with the terms hereof.

(d) FINANCIAL RISKS. The Purchaser acknowledges that it is able to bear the financial risks associated with an investment in the Shares and that it has been given full access to such records of the Company and the subsidiaries and to the officers of the Company and the subsidiaries as it has deemed necessary or appropriate to conduct its due diligence investigation. The Purchaser is capable of evaluating the risks and merits of an investment in the Shares by virtue of its experience as an investor and its knowledge, experience, and sophistication in financial and business matters and the Purchaser is capable of bearing the entire loss of its investment in the Shares.

(e) ACCREDITED INVESTOR. The Purchaser is an "accredited investor" as defined in Rule 501 of Regulation D promulgated under the Securities Act.

(f) GENERAL. The Purchaser understands that the Company is relying upon the truth and accuracy of the representations, warranties, agreements, acknowledgments and understandings of the Purchaser set forth herein in order to determine the suitability of the Purchaser to acquire the Shares.

ARTICLE 3

COVENANTS

The Company covenants with the Purchaser as follows:

Section 3.1. THE SHARES. As of the date of each applicable Draw Down, the Company will have authorized and reserved, free of preemptive rights, a sufficient number of authorized but unissued shares of its Common Stock to cover the Draw Down Shares to be issued in connection with such Draw Down requested under this Agreement. The Draw Down Shares to be issued under this Agreement, when paid for and issued in accordance with the terms hereof, shall be duly and validly issued and outstanding, fully paid and non-assessable, and the

Purchaser shall be entitled to all rights accorded to a holder of Common Stock. Anything in this Agreement to the contrary notwithstanding, (i) at no time will the Company request a Draw Down which would result in the issuance of an aggregate number of shares of Common Stock pursuant to this Agreement which exceeds 19.9% of the number of shares of Common Stock issued and outstanding on the Initial Closing Date without obtaining stockholder approval of such excess issuance, or such other amount as would require stockholder approval under rules of the Principal Market or otherwise without obtaining stockholder approval of such excess issuance, and (ii) the Company may not make a Draw Down to the extent that, after such purchase by the Purchaser, the sum of the number of shares of Common Stock beneficially owned by the Purchaser and its affiliates would result in beneficial ownership by the Purchaser and its affiliates of more than 9.9% of the then outstanding shares of Common Stock. For purposes of the immediately preceding sentence, beneficial ownership shall be determined in accordance with Section 13(d) of the Exchange Act.

Section 3.2. SECURITIES COMPLIANCE. If applicable, the Company shall notify the Principal Market, in accordance with its rules and regulations, of the transactions contemplated by this Agreement, and shall take all other necessary action and proceedings as may be required and permitted by applicable law, rule and regulation, for the legal and valid issuance of the Shares and the Warrant to the Purchaser or subsequent holders.

Section 3.3. REGISTRATION AND LISTING. The Company will cause its Common Stock to continue to be registered under Sections 12(b) or 12(g) of the Exchange Act, will comply in all material respects with its reporting and filing obligations under the Exchange Act, will comply with all requirements related to any registration statement filed pursuant to this Agreement, and will not take any action or file any document (whether or not permitted by the Securities Act or the Exchange Act or the rules promulgated thereunder) to terminate or suspend such registration or to terminate or suspend its reporting and filing obligations under the Exchange Act or Securities Act, except as permitted herein. The Company will take all action necessary to continue the listing or trading of its Common Stock on the Principal Market and will comply in all respects with the Company's reporting, filing and other obligations under the bylaws or rules of the Principal Market and shall provide the Purchaser with copies of any correspondence to or from such Principal Market which questions or threatens delisting of the Common Stock, within three (3) Trading Days of the Company's receipt thereof, until the Purchaser has disposed of all of the Shares.

Section 3.4. ESCROW ARRANGEMENT. The Company and the Purchaser shall enter into an escrow arrangement with Epstein Becker & Green, P.C. (the "Escrow Agent") in the form of EXHIBIT B hereto respecting payment against delivery of the Shares.

Section 3.5. REGISTRATION RIGHTS AGREEMENT. The Company and the Purchaser shall enter into the Registration Rights Agreement in the Form of EXHIBIT A hereto. Before the Purchaser shall be obligated to accept a Draw Down request from the Company, the Company shall have caused a sufficient number of shares of Common Stock to be registered to cover the Shares to be issued in connection with such Draw Down.

Section 3.6. ACCURACY OF REGISTRATION STATEMENT.On each Settlement Date, the Registration Statement and the prospectus therein (a) shall not contain any untrue statement of a material fact or omit to state any material fact to be required to be stated therein or necessary in order to make the statements therein not misleading in light of the circumstances under which they were made; and (b) on such Settlement Date or date of filing of the Registration Statement and the prospectus therein will not include any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; PROVIDED, HOWEVER, the Company makes no representations or warranties as to the information contained in or omitted from the Registration Statement and the prospectus therein in reliance upon and in conformity with the information furnished in writing to the Company by the Purchaser specifically for inclusion in the Registration Statement and the prospectus therein.

Section 3.7. COMPLIANCE WITH LAWS. The Company shall materially comply, and cause each subsidiary to materially comply, with all applicable state, federal and Principal Market laws, rules, regulations and orders, noncompliance with which could have a Material Adverse Effect.

Section 3.8. OTHER AGREEMENTS. The Company shall not enter into any agreement the terms of which would restrict the ability of the Company to perform its obligations under this Agreement.

Section 3.9. NOTICE OF CERTAIN EVENTS AFFECTING REGISTRATION; SUSPENSION OF RIGHT TO REQUEST A DRAW DOWN. SUBJECT TO APPLICABLE LAWS, RULES, REGULATIONS AND ORDERS, THE COMPANY WILL PROMPTLY NOTIFY THE PURCHASER IN WRITING UPON THE OCCURRENCE OF ANY OF THE FOLLOWING EVENTS IN RESPECT OF THE REGISTRATION STATEMENT OR RELATED PROSPECTUS IN RESPECT OF THE SHARES: (i) receipt of any request for additional information from the SEC or any other federal or state governmental authority during the period of effectiveness of the Registration Statement the response to which would require any amendments or supplements to the Registration Statement or related prospectus; (ii) the issuance by the SEC or any other federal or state governmental authority of any stop order suspending the effectiveness of the Registration Statement or the initiation of any proceedings for that purpose; (iii) receipt of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Shares for sale in any jurisdiction or the initiation or threatening of any proceeding for such purpose; (iv) the happening of any event that makes any statement made in the Registration Statement or related prospectus or any document incorporated or deemed to be incorporated therein by reference untrue in any material respect or that requires the making of any changes in the Registration Statement, related prospectus or documents so that, in the case of the Registration Statement, it will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading, and that in the case of the related prospectus, it will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; and (v) the Company's reasonable determination that filing of a post-effective amendment or withdrawal of the Registration Statement would be appropriate. The Company shall not deliver to the Purchaser any Draw Down Notice during the continuation of any of the

foregoing events. The Company shall promptly make available to the Purchaser any such supplements or amendments to the related prospectus, at which time, provided that the registration statement and any supplements and amendments thereto are then effective, the Company may recommence the delivery of Draw Down Notices.

Section 3.10. CONSOLIDATION; MERGER. The Company shall not, at any time after the date hereof, effect any merger or consolidation of the Company with or into, or a transfer of all or substantially all of the assets of the Company to, another entity (a "Consolidation Event") unless the resulting successor or acquiring entity (if not the Company) assumes by written instrument or by operation of law the obligation to deliver to the Purchaser such shares of stock and/or securities as the Purchaser is entitled to receive pursuant to this Agreement.

Section 3.11. LIMITATION ON FUTURE FINANCING. Other than as required by the Millenium Agreement, the Company shall not enter into any other stand-by equity based credit facility until the earlier of (a) the date on which an aggregate of $30,000,000 shall have been drawn pursuant hereto by the Company and (b) termination of this Agreement in accordance with Article 6 hereof.

Section 3.12. USE OF PROCEEDS. The proceeds from the sale of the Shares will be used by the Company and its subsidiaries for general corporate purposes.

Section 3.13. STATEMENT OF COMPANY'S COUNSEL. Within ten (10) Trading Days after the Effective Date, the Company shall furnish to the Purchaser the following written statement by the Company's outside counsel, addressed to the Purchaser and dated such Settlement Date:

"In the course of the preparation by the Company of the Registration Statement and the Prospectus, we have participated in discussions with the Purchaser's representatives and those of the Company and its independent accountants, in which the business and affairs of the Company and the contents of the Registration Statement and the Prospectus were discussed. On the basis of information that we have gained in the course of our representation of the Company in connection with its preparation of the Registration Statement and the Prospectus and our participation in the discussions referred to above, we believe that the Registration Statement, as of its effective date, and the Prospectus, as of its effective date, complied as to form in all material respects with the requirements of the Act and the published rules and regulations of the SEC thereunder, and we do not know of any legal or governmental proceeding to which the Company or any of its subsidiaries is a party or to which any of its property is subject required to be described in the Prospectus which is not so described. Further, based on such information and participation, nothing that has come to our attention has caused us to believe that the Registration Statement at the time the Registration Statement became effective contained any untrue statement of a material fact or omitted to state any material fact required to be stated therein or necessary to make the statements therein not misleading, or that the Prospectus as of their date and as of the date of this opinion contained or contains any untrue statement of material fact or omitted or omit to state any material fact necessary to

make the statements therein, in light of the circumstances under which they were made, not misleading. We express no opinion, however, with respect to the financial statements, including the notes and the schedules thereto, or any other financial, accounting or statistical information set forth or referred to in the Registration Statement or the Prospectus. The limitations inherent in the independent verification of factual matters and the character of the determinations involved in our review are such that we do not assume any responsibility for the accuracy, completeness or fairness of the statements made or the information contained in the Registration Statement or Prospectuses except for those made under the captions "Description of Capital Stock" and "Shares Eligible for Future Sale," which accurately and fairly summarize in all material respects the provisions of the laws and documents referred to therein."

The Purchaser covenants with the Company as follows:

Section 3.14. COMPLIANCE WITH LAW. The Purchaser agrees that its trading activities with respect to shares of the Company's Common Stock will be in compliance with all applicable state and federal securities laws, rules and regulations and rules and regulations of the Principal Market on which the Company's Common Stock is listed. Without limiting the generality of the foregoing, the Purchaser agrees that it will, whenever required by federal securities laws, deliver the prospectus included in the Registration Statement to any purchaser of Shares from the Purchaser.

Section 3.15. NO SHORT SALES. The Purchaser and its affiliates shall not engage in short sales of the Company's Common Stock (as defined in applicable SEC rules and the Principal Market rules) during the term of this Agreement.

ARTICLE 4

CONDITIONS TO INITIAL CLOSING AND DRAW DOWNS

Section 4.1. CONDITIONS PRECEDENT TO THE OBLIGATION OF THE COMPANY TO SELL THE SHARES. The obligation hereunder of the Company to proceed to close this Agreement and to issue and sell the Shares to the Purchaser pursuant to a Draw Down Notice delivered hereunder is subject to the satisfaction or waiver, at or before the Initial Closing, and as of each Settlement Date, of each of the conditions set forth below. These conditions are for the Company's sole benefit and may be waived by the Company at any time in its sole discretion.

(a) ACCURACY OF THE PURCHASER'S REPRESENTATIONS AND WARRANTIES. The representations and warranties of the Purchaser shall be true and correct in all material respects as of the date when made and as of the Initial Closing and as of each Settlement Date as though made at that time, except for representations and warranties that speak as of a particular date.

(b) PERFORMANCE BY THE PURCHASER. The Purchaser shall have performed, satisfied and complied in all material respects with all material covenants, agreements and conditions required by this Agreement to be performed, satisfied or complied with by the Purchaser at or prior to the Initial Closing and as of each Settlement Date.

(c) NO INJUNCTION. No statute, rule, regulation, executive order, decree, ruling or injunction shall have been enacted, entered, promulgated or endorsed by any court or governmental authority of competent jurisdiction which prohibits the consummation of any of the transactions contemplated by this Agreement.

Section 4.2. CONDITIONS PRECEDENT TO THE OBLIGATION OF THE PURCHASER TO CLOSE. The obligation hereunder of the Purchaser to perform its obligations under this Agreement and to purchase the Shares is subject to the satisfaction or waiver, at or before the Initial Closing, of each of the conditions set forth below. These conditions are for the Purchaser's sole benefit and may be waived by the Purchaser at any time in its sole discretion.

(a) ACCURACY OF THE COMPANY'S REPRESENTATIONS AND WARRANTIES. Each of the representations and warranties of the Company shall be true and correct in all material respects as of the date when made and as of the Initial Closing as though made at that time (except for representations and warranties that speak as of a particular date).

(b) PERFORMANCE BY THE COMPANY. The Company shall have performed, satisfied and complied in all respects with all covenants, agreements and conditions required by this Agreement to be performed, satisfied or complied with by the Company at or prior to the Initial Closing.

(c) NO INJUNCTION. No statute, rule, regulation, executive order, decree, ruling or injunction shall have been enacted, entered, promulgated or endorsed by any court or governmental authority of competent jurisdiction which prohibits the consummation of any of the transactions contemplated by this Agreement.

(d) NO PROCEEDINGS OR LITIGATION. No action, suit or proceeding before any arbitrator or any governmental authority shall have been commenced, and no investigation by any governmental authority shall have been threatened, against the Purchaser or the Company or any subsidiary, or any of the officers, directors or affiliates of the Company or any subsidiary seeking to restrain, prevent or change the transactions contemplated by this Agreement, or seeking damages in connection with such transactions.

(e) OPINION OF COUNSEL, ETC. At the Initial Closing, the Purchaser shall have received an opinion of counsel to the Company, dated as of the Initial Closing Date, in the form of EXHIBIT C hereto.

(f) WARRANT. On the Initial Closing Date, the Company shall issue to the Purchaser a warrant to purchase up to 250,000 shares of Common Stock. The

Warrant shall have a term from its initial date of exercise of 3 years. The exercise price of the Warrant shall be 115% of the average of the closing bid prices of the Common Stock (as reported by Bloomberg Financial L.P. at 4:02 p.m. ET on the Principal Market) during the 15 Trading Days immediately prior to the Initial Closing Date. The Common Stock underlying the Warrant will be registered in the Registration Statement referred to in Section 4.3 hereof. The Warrant shall be in the form of EXHIBIT E hereto.

Section 4.3. CONDITIONS PRECEDENT TO THE OBLIGATION OF THE PURCHASER TO ACCEPT A DRAW DOWN AND PURCHASE THE DRAW DOWN SHARES. The obligation hereunder of the Purchaser to accept a Draw Down request and to acquire and pay for the Draw Down Shares is subject to the satisfaction at or before each Settlement Date, of each of the conditions set forth below.

(a) SATISFACTION OF CONDITIONS TO INITIAL CLOSING. The Company shall have satisfied at the Initial Closing, or the Purchaser shall have waived at the Initial Closing, the conditions set forth in Section 4.2 hereof

(b) EFFECTIVE REGISTRATION STATEMENT. The Registration Statement registering the Shares shall have been declared effective by the SEC and shall remain effective on each Settlement Date.

(c) NO SUSPENSION. Trading in the Company's Common Stock shall not have been suspended by the SEC or the Principal Market (except for any suspension of trading of limited duration agreed to by the Company, which suspension shall be terminated prior to the delivery of each Draw Down Notice), and, at any time prior to such Draw Down Notice, trading in securities generally as reported on the Principal Market shall not have been suspended or limited, or minimum prices shall not have been established on securities whose trades are reported on the Principal Market unless the general suspension or limitation shall have been terminated prior to the delivery of such Draw Down Notice.

(d) MATERIAL ADVERSE EFFECT. No Material Adverse Effect and no Consolidation Event where the successor entity has not agreed to perform the Company's obligations hereunder shall have occurred since the later of the Initial Closing or the Settlement of the immediately preceding Draw Down, such occurrences to be determined in accordance with Section 8.9 herein.

(e) OPINION OF COUNSEL. The Purchaser shall have received (i) a "down-to-date" letter from the Company's counsel, confirming that there is no change from the counsel's previously delivered opinion, or else specifying with particularity the reason for any change and an opinion as to the additional items specified in EXHIBIT C hereto, (ii) a Form 424(b)(3) supplemental prospectus, if required by applicable law and (iii) any other items set forth in the Escrow Agreement (not including the escrow fee if the Escrow Agent is not used for such Draw Down).

ARTICLE 5

DRAW DOWN TERMS

Section 5.1. DRAW DOWN TERMS. Subject to the satisfaction of the conditions set forth in this Agreement, the parties agree as follows:

(a) The Company may, in its sole discretion, issue and exercise draw downs against the Commitment Amount (each a "Draw Down") during the Commitment Period, which Draw Downs the Purchaser shall be obligated to accept, subject to the terms and conditions herein.

(b) Only one Draw Down shall be allowed in each Draw Down Pricing Period. There shall be a minimum of one (1) Trading Day between Draw Down Pricing Periods. The number of shares of Common Stock purchased by the Purchaser with respect to each Draw Down shall be determined as set forth in Section 5.1(e) herein and settled on:

(i) as to the 1st through the 10th Trading Day during the Draw Down Pricing Period, on or before the 12th Trading Day after such Draw Down Pricing Period commences; and

(ii) as to the 11th through the 20th Trading Day during the Draw Down Pricing Period, on or before the 22nd Trading Day after such Draw Down Pricing Period commences (such settlement periods and such settlement dates in subsection (i) and this subsection (ii) each referred to as a "Settlement Period" and a "Settlement Date", respectively).

(c) In connection with each Draw Down Pricing Period, the Company may set the Threshold Price in the Draw Down Notice.

(d) The minimum Investment Amount for any Draw Down shall be $250,000 and the maximum Investment Amount as to each Draw Down shall be 6% of the EQY weighted average price field (as reported on Bloomberg Financial L.P. using the BLPH function) for the 60 calendar days immediately prior to the applicable Commencement Date (defined below) multiplied by the total trading volume in respect of the Common Stock for such period. Notwithstanding anything herein to the contrary, in the event the minimum Investment Amount is greater than the maximum Investment Amount, as to such Draw Down only, the minimum Investment Amount shall equal the maximum Investment Amount, but in no event shall the minimum Investment Amount be less than $100,000, such that if the maximum Investment Amount is less than $100,000, then the Company shall be precluded from exercising a Draw Down at such time.

(e) The number of Shares of Common Stock to be issued on each Settlement Date shall be a number of shares equal to the sum of the quotients (for each trading day within the Settlement Period) of (x) 1/20th of the Investment Amount, and

(y) the Purchase Price on each Trading Day within the Settlement Period, subject to the following adjustments:

(i) if the VWAP on a given Trading Day is less than the Threshold Price, then that portion of the Investment Amount to be paid on the immediately pending Settlement Date shall be reduced by 1/20th of the Investment Amount and such Trading Day shall be withdrawn from the Settlement Period;

(ii) if during any Trading Day during the Settlement Period trading of the Common Stock on the Principal Market is suspended for more than three (3) hours, in the aggregate, or if any Trading Day during the Settlement Period is shortened because of a public holiday, then that portion of the Investment Amount to be paid on the immediately pending Settlement Date shall be reduced by 1/20th of the Investment Amount and such Trading Day shall be withdrawn from the Settlement Period; and

(iii) if during any Trading Day during the Settlement Period sales of Draw Down Shares pursuant to the Registration Statement are suspended by the Company in accordance with Sections 3(j) or 5(e) of the Registration Rights Agreement for more than three (3) hours, in the aggregate, during the Settlement Period, then that portion of the Investment Amount to be paid on the immediately pending Settlement Date shall be reduced by 1/20th of the Investment Amount and such Trading Day shall be withdrawn from the Settlement Period.

(f) The Company must inform the Purchaser by delivering a draw down notice, in the form of EXHIBIT D hereto (the "Draw Down Notice"), via facsimile transmission in accordance with Section 8.4 as to the amount of the Draw Down (the "Investment Amount") the Company wishes to exercise, before the first day of the Draw Down Pricing Period (the "Commencement Date"). If the Commencement Date is to be the date of the Draw Down Notice, the Draw Down Notice must be delivered to and receipt confirmed by the Purchaser at least one (1) hour before trading commences on such date. At no time shall the Purchaser be required to purchase more than the maximum Investment Amount for a given Draw Down Pricing Period; in other words, if the Company chooses not to exercise the maximum Investment Amount in a given Draw Down Pricing Period the Purchaser is not obligated to and shall not purchase more than the scheduled maximum Investment Amount in a subsequent Draw Down Pricing Period.

(g) On each Settlement Date, the Shares purchased by the Purchaser during the immediately preceding Settlement Period shall be delivered to The Depository Trust Company ("DTC") on the Purchaser's behalf. Upon the Company electronically delivering whole shares of Common Stock to the Purchaser or its designees via DTC through its Deposit Withdrawal Agent Commission ("DWAC") system by 1:00 p.m. New York time, the Purchaser shall wire transfer immediately available funds to the Company's designated account on such day, less any fees as set forth in the Escrow Agreement, which fees shall be wired as directed in the Escrow Agreement. Upon the

Company electronically delivering whole shares of Common Stock to the Purchaser or its designees DTC account via DWAC after 1:00 p.m. New York time, the Purchaser shall wire transfer next day available funds to the Company's designated account on such day, less any fees as set forth in the Escrow Agreement, which fees shall be wired as directed in the Escrow Agreement. In the event that either party elects to use the Escrow Agent, the Shares shall be credited by the Company to the DTC account designated by the Purchaser via DWAC upon receipt by the Escrow Agent of payment for the Draw Down Shares into the Escrow Agent's master escrow account, as further set forth in the Escrow Agreement, and the Escrow Agent shall be directed to pay the purchase price to the Company, net of $1,000 per Settlement as escrow expenses to the Escrow Agent and any additional fees as set forth in the Escrow Agreement. The Company understands that a delay in the delivery of the Draw Down Shares into the Purchaser's DTC account beyond 5 Trading Days after the dates set forth herein or in the Escrow Agreement, as the case may be, could result in economic loss to the Purchaser. Notwithstanding anything herein to the contrary, as compensation to the Purchaser for such loss, the Company agrees to pay late payments to the Purchaser for late delivery after 5 Trading Days from such dates in accordance with the following schedule (where "No. Trading Days Late" is defined as the number of Trading Days beyond three 5 Trading Days from the dates set forth herein or in the Escrow Agreement, as the case may be, on which such Draw Down Shares are to be delivered into the Purchaser's DTC account via the DWAC system):

No. Trading Days Late	Late Payment for Each $5,000 of Draw Down Shares Being Purchased
1	$100
2	$200
3	$300
4	$400
5	$500
6	$600
7	$700
8	$800
9	$900
10	$1,000
More than 10	$1,00 +$200 for each Trading Day Late beyond 10 Trading Days.

The Company shall pay any payments incurred under this Section 5.1(g) in immediately available funds upon demand. Nothing herein shall limit the Purchaser's right to pursue injunctive relief and/or actual damages (in lieu of the liquidated damages set forth above) for the Company's failure to issue and deliver the Draw Down Shares to the Company, including, without limitation, the Purchaser's actual losses occasioned by any "buy-in" of Common Stock necessitated by such late delivery.

ARTICLE 6

TERMINATION

Section 6.1. TERM. The term of this Agreement shall begin on the date hereof and shall end 30 months from the Effective Date or as otherwise set forth in Section 6.2.

Section 6.2. OTHER TERMINATION.

(a) This Agreement shall terminate upon one (1) Trading Day's notice if (i) an event resulting in a Material Adverse Effect has occurred and has not been cured for a period of 30 days after written notice thereof, (ii) the Common Stock is de-listed from the Principal Market for a period exceeding 3 consecutive days unless such de-listing is in connection with the Company's subsequent listing of the Common Stock on the Nasdaq National Market, Nasdaq SmallCap Market, the American Stock Exchange or the New York Stock Exchange, or (iii) the Company files for protection from creditors under any applicable law.

(b) The Company may terminate this Agreement upon one (1) Trading Day's notice if the Purchaser shall fail to fund more than one properly noticed Draw Down within 4 Trading Days of the end of the applicable Settlement Period.

Section 6.3. EFFECT OF TERMINATION. In the event of termination of this Agreement pursuant to Section 6.2 herein, written notice thereof shall forthwith be given to the other party and the transactions contemplated by this Agreement shall be terminated without further action by either party. If this Agreement is terminated as provided in Section 6.1 or 6.2 herein, this Agreement shall become void and of no further force and effect, except for Sections 8.1, 8.2 and 8.9, and Article 7 herein. Nothing in this Section 6.3 shall be deemed to release the Company or the Purchaser from any liability for any breach under this Agreement, or to impair the rights of the Company or the Purchaser to compel specific performance by the other party of its obligations under this Agreement.

ARTICLE 7

INDEMNIFICATION

Section 7.1. General Indemnity.

(a) The Company agrees to indemnify and hold harmless the Purchaser (and its directors, officers, affiliates, agents, successors and assigns) from and against any and all losses, liabilities, deficiencies, costs, damages and expenses (including, without limitation, reasonable attorneys' fees, charges and disbursements) incurred by the Purchaser as a result of any material inaccuracy in or breach of the representations, warranties or covenants made by the Company herein.

(b) The Purchaser agrees to indemnify and hold harmless the Company and its directors, officers, affiliates, agents, successors and assigns from and against any and all losses, liabilities, deficiencies, costs, damages and expenses (including, without limitation, reasonable attorneys' fees, charges and disbursements) incurred by the Company as result of any material inaccuracy in or breach of the representations, warranties or covenants made by the Purchaser herein.

Section 7.2. INDEMNIFICATION PROCEDURE. Any party entitled to indemnification under this Article 7 (an "Indemnified Party") will give written notice to the indemnifying party of any matters giving rise to a claim for indemnification; provided, that the failure of any party entitled to indemnification hereunder to give notice as provided herein shall not relieve the indemnifying party of its obligations under this Article 7 except to the extent that the indemnifying party is actually prejudiced by such failure to give notice. In case any action, proceeding or claim is brought against an Indemnified Party in respect of which indemnification is sought hereunder, the indemnifying party shall be entitled to participate in and, unless in the reasonable judgment of counsel to the Indemnified Party a conflict of interest between it and the indemnifying party may exist with respect of such action, proceeding or claim, to assume the defense thereof with counsel reasonably satisfactory to the Indemnified Party. In the event that the indemnifying party advises an Indemnified Party that it will contest such a claim for indemnification hereunder, or fails, within thirty (30) days of receipt of any indemnification notice to notify, in writing, such person of its election to defend, settle or compromise, at its sole cost and expense, any action, proceeding or claim (or discontinues its defense at any time after it commences such defense), then the Indemnified Party may, at its option, defend, settle or otherwise compromise or pay such action or claim. In any event, unless and until the indemnifying party elects in writing to assume and does so assume the defense of any such claim, proceeding or action, the Indemnified Party's costs (including reasonable attorneys' fees, charges and disbursements) and expenses arising out of the defense, settlement or compromise of any such action, claim or proceeding shall be losses subject to indemnification hereunder. The Indemnified Party shall cooperate fully with the indemnifying party in connection with any settlement negotiations or defense of any such action or claim by the indemnifying party and shall furnish to the indemnifying party all information reasonably available to the Indemnified Party, which relates to such action or claim. The indemnifying party shall keep the Indemnified Party fully apprised at all times as to the status of the defense or any settlement negotiations with respect thereto. If the indemnifying party elects to defend any such action or claim, then the Indemnified Party shall be entitled to participate in such defense with counsel of its choice at its sole cost and expense. The indemnifying party shall not be liable for any settlement of any action, claim or proceeding effected without its prior written consent. Notwithstanding anything in this Article 7 to the contrary, the indemnifying party shall not, without the Indemnified Party's prior written consent (which consent shall not be unreasonably withheld), settle or compromise any claim or consent to entry of any judgment in respect thereof which imposes any future obligation on the Indemnified Party or which does not include, as an unconditional term thereof, the giving by the claimant or the plaintiff to the Indemnified Party of a release from all liability in respect of such claim. The indemnity agreements contained herein shall be in addition to (a) any cause of action or similar rights of the Indemnified Party against the indemnifying party or

others, and (b) any liabilities to which the indemnifying party may be subject in each case pursuant to applicable law, rules or regulations.

ARTICLE 8

MISCELLANEOUS

Section 8.1. FEES AND EXPENSES. Each of the parties to this Agreement shall pay its own fees and expenses related to the transactions contemplated by this Agreement; except that, the Company shall pay, at the Initial Closing, a non-accountable expense allowance of $25,000 for the Purchaser's legal, administrative and due diligence costs and expenses and any other additional fees as set forth in the Escrow Agreement. The Company shall pay all stamp or other similar taxes and duties levied in connection with issuance of the Shares pursuant hereto.

Section 8.2. SPECIFIC ENFORCEMENT. The Company and the Purchaser acknowledge and agree that irreparable damage would occur in the event that any of the provisions of this Agreement were not performed in accordance with their specific terms or were otherwise breached. It is accordingly agreed that the parties shall be entitled to an injunction or injunctions to prevent or cure breaches of the provisions of this Agreement and to enforce specifically the terms and provisions hereof or thereof, this being in addition to any other remedy to which any of them may be entitled by law or equity.

Section 8.3. ENTIRE AGREEMENT; AMENDMENT. The Transaction Documents contain the entire understanding of the parties with respect to the matters covered in the Transaction Documents. No provision of this Agreement may be waived or amended other than by a written instrument signed by the party against whom enforcement of any such amendment or waiver is sought and no condition to closing any Draw Down in favor of the Purchaser may be waived by the Purchaser.

Section 8.4. NOTICES. Any notice, demand, request, waiver or other communication required or permitted to be given hereunder shall be in writing and shall be effective (a) upon hand delivery or facsimile at the address or number designated below (if delivered on a business day during normal business hours where such notice is to be received), or the first business day following such delivery (if delivered other than on a business day during normal business hours where such notice is to be received) or (b) on the second business day following the date of mailing by express courier service, fully prepaid, addressed to such address, or upon actual receipt of such mailing, whichever shall first occur. The addresses for such communications shall be:

If to the Company: 3155 Porter Drive

	Palo Alto, CA 94304 Attn: Martin McGlynn, Chief Executive Officer Iris Brest, General Counsel Tel: (650) 475-3100 Fax: (650) 475-3101
with copies to: (which shall not constitute notice)	Ropes & Gray One International Place Boston, MA 02110 Attn: Geoffrey B. Davis Tel: (617) 951-7000 Fax: (617) 951-7050
If to Purchaser:	c/o Beacon Capital Management Harbour House, 2nd Floor Waterfront Drive, Road Town Tortola, British Virgin Islands Attn: David Sims Fax: (284) 494-4090
with copies to: (which shall not constitute notice)	Epstein Becker & Green P.C. 250 Park Avenue New York, NY 10177-1211 Tel: (212) 351-3771 Fax: (212) 661-0989 Attn: Robert F. Charron

Any party hereto may from time to time change its address for notices by giving written notice of such changed address to the other party hereto in accordance herewith.

Section 8.5. WAIVERS. No waiver by either party of any default with respect to any provision, condition or requirement of this Agreement shall be deemed to be a continuing waiver in the future or a waiver of any other provisions, condition or requirement hereof, nor shall any delay or omission of any party to exercise any right hereunder in any manner impair the exercise of any such right accruing to it thereafter.

Section 8.6. HEADINGS. The article, section and subsection headings in this Agreement are for convenience only and shall not constitute a part of this Agreement for any other purpose and shall not be deemed to limit or affect any of the provisions hereof.

Section 8.7. SUCCESSORS AND ASSIGNS. This Agreement and the rights and obligations thereunder may not be assigned by either party without the written consent of the other party. This Agreement shall be binding upon and inure to the benefit of the parties and their successors and assigns. The parties hereto may not amend this Agreement or any rights or obligations hereunder without the prior written consent of the Company and the Purchaser.

Section 8.8. NO THIRD PARTY BENEFICIARIES.This Agreement is intended for the benefit of the parties hereto and their respective permitted successors and assigns and is not for the benefit of, nor may any provision hereof be enforced by, any other person, including without limitation, any assignee of some or all of the rights to purchase the Warrant Shares pursuant to the Warrant.

Section 8.9. GOVERNING LAW/ARBITRATION. This Agreement shall be governed by and construed in accordance with the internal laws of the State of New York, without giving effect to the choice of law provisions. The Company and the Purchaser agree to submit themselves to the IN PERSONAM jurisdiction of the state and federal courts situated within the Southern District of the State of New York with regard to any dispute or controversy arising out of or relating to this Agreement. Any dispute or controversy under this Agreement or any Exhibit attached hereto shall be submitted to arbitration under the American Arbitration Association (the "AAA") in New York City, New York, and shall be finally and conclusively determined by the decision of a board of arbitration consisting of three (3) members (hereinafter referred to as the "Board of Arbitration") selected as according to the rules governing the AAA. The Board of Arbitration shall meet on consecutive business days in New York City, New York, and shall reach and render a decision in writing (concurred in by a majority of the members of the Board of Arbitration) with respect to the amount, if any, which the losing party is required to pay to the other party in respect of a claim filed. In connection with rendering its decisions, the Board of Arbitration shall adopt and follow the laws of the State of New York. To the extent practical, decisions of the Board of Arbitration shall be rendered no more than thirty (30) calendar days following commencement of proceedings with respect thereto. The Board of Arbitration shall cause its written decision to be delivered to all parties involved in the dispute. The Board of Arbitration shall be authorized and is directed to enter a default judgment against any party refusing to participate in the arbitration proceeding within thirty days of any deadline for such participation. Any decision made by the Board of Arbitration (either prior to or after the expiration of such thirty (30) calendar day period) shall be final, binding and conclusive on the parties to the dispute, and entitled to be enforced to the fullest extent permitted by law and entered in any court of competent jurisdiction. The prevailing party shall be awarded its costs, including reasonable attorneys' fees, from the non-prevailing party as part of the arbitration award. Any party shall have the right to seek injunctive relief, including without limitation as set forth in Section 8.2, from any court of competent jurisdiction in any case where such relief is available. The prevailing party in such injunctive action shall be awarded its costs, including reasonable attorneys' fees, from the non-prevailing party.

Section 8.10. COUNTERPARTS. This Agreement may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument and shall become effective when counterparts have been signed by each party and delivered to the other parties hereto, it being understood that all parties need not sign the same counterpart. Execution may be made by delivery by facsimile.

Section 8.11. PUBLICITY. Except as required by law or regulations or the rules of the Principal Market, neither the Company nor the Purchaser shall issue any press release or otherwise make any public statement or announcement with respect to this Agreement or the transactions contemplated hereby or the existence of this Agreement, without the prior written

consent of the other party. In connection with the Initial Closing, if the Company deems it necessary or desirable, the Company may issue a press release or file an appropriate report with the SEC regarding the transactions contemplated hereby; PROVIDED, HOWEVER, that prior to issuing any such press release, making any such public statement or announcement, the Company obtains the prior consent of the Purchaser, which consent shall not be unreasonably withheld or delayed.

Section 8.12. SEVERABILITY. The provisions of this Agreement are severable and, in the event that The Board of Arbitration or any court or officials of any regulatory agency of competent jurisdiction shall determine that any one or more of the provisions or part of the provisions contained in this Agreement shall, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision or part of a provision of this Agreement and this Agreement shall be reformed and construed as if such invalid or illegal or unenforceable provision, or part of such provision, had never been contained herein, so that such provisions would be valid, legal and enforceable to the maximum extent possible, so long as such construction does not materially adversely affect the economic rights of either party hereto.

Section 8.13. FURTHER ASSURANCES. From and after the date of this Agreement, upon the request of the Purchaser or the Company, each of the Company and the Purchaser shall execute and deliver such instruments, documents and other writings as may be reasonably necessary or desirable to confirm and carry out and to effectuate fully the intent and purposes of this Agreement.

Section 8.14. EFFECTIVENESS OF AGREEMENT. This Agreement shall become effective only upon satisfaction of the conditions precedent to the Initial Closing set forth in Article I of the Escrow Agreement.

Section 8.15. CONFIDENTIALITY. The Purchaser understands that the CPI has been developed or obtained by the Company by the investment of significant time, effort and expense and that such CPI provides the Company with significant competitive advantages in its businesses. The Purchaser therefore agrees (i) to maintain all CPI in confidence and take all necessary precautions to protect said CPI, including without limitation, all precautions the Purchaser normally employs with respect to its own confidential materials but in no event less than a reasonable degree of care; (ii) not to divulge CPI or any information derived therefrom outside of Purchaser; and (iii) not to utilize said CPI for any purpose other than as necessary for purposes of performance under this Agreement. The foregoing sentence shall not apply with respect to information the Purchaser can establish (i) is in the public domain at the time of disclosure or which thereafter enters the public domain, through no improper action or inaction by the Purchaser; or (ii) was known to or independently developed by or in the possession of Purchaser prior to receipt of such CPI from the Company, as evidenced by written records; or (iii) was lawfully disclosed to the Purchaser by a third party without restriction; or (iv) is required to be disclosed by a government agency or court order or pursuant to applicable laws and regulations PROVIDED that within five days of notification of such a requirement and prior to complying with such requirement the Purchaser shall notify the Company of such requirement pursuant to clause (iv) and shall limit the disclosure to that portion of the CPI which is legally

required in the written opinion of counsel and shall use best efforts to ensure such CPI is treated confidentially.

ARTICLE 9

DEFINITIONS

Section 9.1. Certain Definitions.

(a) "COMMENCEMENT DATE" shall have the meaning assigned to such term in Section 5.1(f) hereof.

(b) "COMMITMENT AMOUNT" shall have the meaning assigned to such term in Section 1.1 hereof.

(c) "COMMITMENT PERIOD" shall mean the period commencing on the Effective Date and expiring on the earliest to occur of (i) the date on which the Purchaser shall have exercised an aggregate amount of Draw Downs equal to the Commitment Amount, (ii) the date this Agreement is terminated in accordance with the terms hereof, or (iii) the date occurring 30 months after the Effective Date.

(d) "COMMON STOCK" shall mean the Company's common stock, $0.01 par value per share.

(e) "CPI" shall mean all oral and written information concerning the Company which is non-public, confidential or proprietary in nature and shall include, but not be limited to, existing, future-developed or acquired products, processes, techniques, methods, agents, computer programs, trade secrets, and other information regarding the business of the Company, know-how, ideas (including patentable ideas), inventions, unpublished patent applications, improvements, copyrightable materials, schematics, product development plans, forecasts, strategies, customers, suppliers, regulatory strategies and other technical, business, financial, marketing and merchandising information of the Company.

(f) "DISCLOSURE SCHEDULE" shall mean the schedules prepared by the Company and attached hereto.

(g) "DRAW DOWN" shall have the meaning assigned to such term in Section 5.1(a) hereof.

(h) "DRAW DOWN NOTICE" shall have the meaning assigned to such term in Section 5.1(f) hereof.

(i) "DRAW DOWN PRICING PERIOD" shall mean a period of twenty (20) consecutive Trading Days beginning on the date specified in the Draw Down Notice (as defined in Section 5.1(f) herein); PROVIDED, HOWEVER, the Draw Down Pricing Period shall not begin before the day on which receipt of such notice is confirmed by the Purchaser.

(j) "DTC" shall have the meaning assigned to such term in Section 5.1(g).

(k) "DWAC" shall have the meaning assigned to such term in Section 5.1(g).

(l) "EFFECTIVE DATE" shall mean the date the Registration Statement of the Company covering the Shares being subscribed for hereby is declared effective by the SEC.

(m) "ENGAGEMENT LETTER" shall mean the letter agreement dated as of April 24, 2001, between the Company and Pacific Crest Securities, Inc.

(n) "EXCHANGE ACT" shall mean the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

(o) "GAAP" shall mean the United States Generally Accepted Accounting Principles as those conventions, rules and procedures are determined by the Financial Accounting Standards Board and its predecessor agencies.

(p) "INITIAL CLOSING" shall have the meaning assigned to such term in Section 1.2 hereof.

(q) "INITIAL CLOSING DATE" shall have the meaning assigned to such term in Section 1.2 hereof.

(r) "INVESTMENT AMOUNT" shall have the meaning assigned to such term in Section 5.1(f) hereof.

(s) "MATERIAL ADVERSE EFFECT" shall mean any adverse effect on the business, operations, properties or financial condition of the Company that is material and adverse to the Company and its subsidiaries and affiliates, taken as a whole and/or any condition, circumstance, or situation that would prohibit or otherwise materially interfere with the ability of the Company to perform any of its material obligations under this Agreement or the Registration Rights Agreement.

(t) "MATERIAL AGREEMENT" shall mean any written or oral contract, instrument, agreement, commitment, obligation, plan or arrangement, a copy of which is required to be filed with the SEC as an exhibit to any of the SEC Documents.

(u) "MILLENNIUM AGREEMENT" shall mean the Subscription Agreement dated as of July 31, 2000, between the Company and Millennium Partners, L.P. and the other agreements entered into in connection therewith.

(v) "PRINCIPAL MARKET" shall mean initially the Nasdaq National market and shall include the American Stock Exchange, the Nasdaq Small-Cap Market and the

New York Stock Exchange if the Company becomes listed and trades on such market or exchange after the date hereof.

(w) "PURCHASE PRICE" shall mean, with respect to Shares purchased during each applicable Settlement Period, 94% (the "Purchase Price Percentage") of the VWAP on the date in question; EXCEPT THAT, the Purchase Price Percentage shall increase by 0.5% for each $50,000,000 increase in the Company's market cap (calculated by multiplying the number of shares of Common Stock issued and outstanding by the VWAP of the Common Stock on any date in question (the "Market Cap")) over $50,000,000 during the applicable Market Cap Period (as defined below); PROVIDED, that in no event shall the Purchase Price Percentage be more than 96%; PROVIDED, FURTHER, that such increases in the Purchase Price Percentage shall only occur if the increase in the Market Cap is maintained for at least twenty (20) consecutive Trading Days immediately prior to the date the applicable Draw Down Pricing Period commences (the "Market Cap Period"). By way of example, if the Market Cap as to a Market Cap Period is $99,999,999, the Purchase Price Percentage is 94% as to the applicable Draw Down. If the Market Cap as to a Market Cap Period is $101,000,000, the Purchase Price Percentage is 94.5% as to the applicable Draw Down. If the Market Cap as to a subsequent Market Cap Period is less than $100,000,000, the Purchase Price Percentage shall be 94% as to such Draw Down.

(x) "REGISTRATION STATEMENT" shall mean the registration statement under the Securities Act, to be filed with the Securities and Exchange Commission for the registration of the Shares pursuant to the Registration Rights Agreement attached hereto as EXHIBIT A (the "Registration Rights Agreement).

(y) "SEC" shall mean the Securities and Exchange Commission.

(z) "SEC DOCUMENTS" shall mean the Company's latest Form 10-K or Form 10-KSB as of the time in question, all Forms 10-Q or 10-QSB and 8-K filed thereafter until the time in question, the Proxy Statement for its latest fiscal year as of the time in question, and any exhibits to the aforementioned documents, until such time as the Company no longer has an obligation to maintain the effectiveness of a Registration Statement as set forth in the Registration Rights Agreement.

(aa)"SECURITIES ACT" shall mean the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

(bb)"SETTLEMENT" shall mean the delivery of the Draw Down Shares into the Purchaser's DTC account via DTC's DWAC System in exchange for payment therefor.

(cc)"SETTLEMENT DATE" shall have the meaning assigned to such term in Section 5.1(b).

(dd)"SETTLEMENT PERIOD" shall have the meaning assigned to such term in Section 5.1(b).

(ee)"SHARES" shall mean, collectively, the shares of Common Stock of the Company being subscribed for hereunder (the "Draw Down Shares") and the shares of Common Stock issuable upon exercise of the Warrant (the "Warrant Shares").

(ff) "THRESHOLD PRICE" shall mean the price per Share designated by the Company as the lowest VWAP during any Draw Down Pricing Period at which the Company shall sell its Common Stock in accordance with this Agreement.

(gg)"TRADING DAY" shall mean any day on which the Principal Market is open for business.

(hh)"TRANSACTION DOCUMENTS" shall mean this Agreement, the Registration Rights Agreement and the Escrow Agreement.

(ii) "VWAP" shall mean the daily volume weighted average price of the Company's Common Stock on the Principal Market as reported by Bloomberg Financial L.P. (based on a trading day from 9:30 a.m. Eastern Time to 4:02 p.m. Eastern Time) using the VAP function on the date in question.

(jj) "WARRANT" shall mean the warrant issued to the Purchaser pursuant to Section 4.2(f) hereof.

[SIGNATURE PAGE FOLLOWS]

[SIGNATURE PAGE TO EQUITY LINE PURCHASE AGREEMENT]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed by their respective authorized officer as of this 10th day of May, 2001.

STEMCELLS INC.,

By: /s/ Martin McGlynn

Martin McGlynn, President & CEO

SATIVUM INVESTMENTS LIMITED

By: /s/ David Sims

David Sims, Director

Exhibit 10.51

ESCROW AGREEMENT

THIS ESCROW AGREEMENT (this "Agreement") is made as of May 10, 2001, by and among StemCells, Inc., a corporation incorporated under the laws of Delaware (the "Company"), Sativum Investments Limited ("Purchaser"), and Epstein Becker & Green, P.C., having an address at 250 Park Avenue, New York, NY 10177 (the "Escrow Agent"). Capitalized terms used but not defined herein shall have the meanings set forth in the Common Stock Purchase Agreement referred to in the first recital.

WHEREAS, the Purchaser will from time to time as requested by the Company, purchase shares of the Company's Common Stock from the Company as set forth in that certain Common Stock Purchase Agreement (the "Purchase Agreement") dated the date hereof between the Purchaser and the Company, which shares shall be issued pursuant to the terms and conditions contained herein and in the Purchase Agreement; and

WHEREAS, the Company and the Purchaser have requested that the Escrow Agent hold in escrow and then distribute the initial documents and certain funds which are conditions precedent to the effectiveness of the Purchase Agreement, and have further requested that upon each exercise of a Draw Down, the Escrow Agent hold the relevant documents and the applicable purchase price pending receipt by Purchaser of the securities issuable upon such Draw Down;

NOW, THEREFORE, in consideration of the covenants and mutual promises contained herein and other good and valuable consideration, the receipt and legal sufficiency of which are hereby acknowledged and intending to be legally bound hereby, the parties agree as follows:

ARTICLE I

TERMS OF THE ESCROW FOR THE INITIAL CLOSING

1.1. The parties hereby agree to establish an escrow account with the Escrow Agent whereby the Escrow Agent shall hold the funds and documents, which are referenced in Section 4.2 of the Purchase Agreement.

1.2. At the Initial Closing, the Company shall deliver to the Escrow Agent:

(i) the original executed Registration Rights Agreement in the form of EXHIBIT A to the Purchase Agreement;

(ii) the original executed opinion of Ropes & Gray in the form of EXHIBIT C to the Purchase Agreement;

(iii) the sum of $25,000 as a non-accountable expense allowance for the Purchaser's legal, administrative and due diligence costs and expenses;

(iv) the sum of $25,000 as a non-accountable expense allowance for Pacific Crest Securities, Inc.'s ("Pacific Crest") legal and administrative costs and expenses;

(v) the original executed Company counterpart of this Escrow Agreement;

(vi) the original executed Company counterpart of the Purchase Agreement;

(vii) a warrant issued to Pacific Crest Securities, Inc. to purchase up to 75,000 shares of Common Stock otherwise identical to that of the Warrant ("PC Warrant");

(viii) a warrant issued to Granite Financial Group, Inc. to purchase up to 25,000 shares of Common Stock otherwise identical to that of the Warrant (the "Granite Warrant"); and

(ix) the original executed Warrant.

1.3. Upon receipt of the foregoing, and receipt of executed counterparts from Purchaser of the Purchase Agreement, the Registration Rights Agreement and this Escrow Agreement, the Escrow Agent shall calculate and enter the exercise price, issuance date and termination date on the face of the Warrant, PC Warrant and the Granite Warrant and immediately transfer the sum of $25,000 as directed by the Purchaser and $25,000 as directed by Pacific Crest, and shall then arrange to have the Purchase Agreement, this Escrow Agreement, the Registration Rights Agreement, the Warrant, the PC Warrant, the Granite Warrant and the opinion of counsel delivered to the appropriate parties.

1.4 WIRE TRANSFERS to the Escrow Agent (NOT address for notice or delivery of documents) shall be made as follows:

Epstein Becker & Green, P.C.
Master Escrow Account
Chase Manhattan Bank
1411 Broadway - Fifth Floor
New York, New York 10018
ABA No. 021000021
Account No. 035 1 346036
Attention: L. Borneo

ARTICLE II

TERMS OF THE ESCROW FOR EACH DRAW DOWN

2.1. Each time the Company shall send a Draw Down Notice to the Purchaser as provided in the Purchase Agreement, it shall send a copy, by facsimile, to the Escrow Agent. Either party shall notify the Escrow Agent and the other party contemporaneously with the delivery of each Draw Down Notice whether it intends to use the Escrow Agent to effect the Settlements associated with such Draw Down.

2.2. Each time the Purchaser shall purchase Shares pursuant to a Draw Down for which either party has elected to use the Escrow Agent, the Purchaser shall send the applicable Purchase Price of the Draw Down Shares to the Escrow Agent. Upon receipt of such funds, the Escrow Agent shall advise the Company that it has received the funds for such Draw Down Shares. The Company shall promptly, but no later than one (1) Trading Day after receipt of such funding notice from the Escrow Agent:

(i) cause its transfer agent to issue the Draw Down Shares to the Purchaser via DTC's DWAC system to the account specified by the Purchaser from time to time;

(ii) deliver the original executed attorney's opinion in the form of EXHIBIT C to the Purchase Agreement to the Purchaser; and

(iii) deliver a Form 424(b)(3) supplemental prospectus to the Purchaser.

2.3. Upon receipt of confirmation from the Purchaser that such Draw Down Shares have been so deposited and the opinion and the supplemental prospectus have been so delivered, the Escrow Agent shall, as soon as practicable but not later than one (1) Trading Day of receipt of the foregoing, wire 97% of the applicable Investment Amount per the written instructions of the Company, net of one thousand dollars ($1,000) as escrow expenses to the Escrow Agent, 2% of the applicable Investment Amount to Pacific Crest and the remaining 1% of the applicable Investment Amount to Granite Financial Group, Inc.

2.4. The Escrow Agent shall remit the Pacific Crest and Granite Financial Group, Inc.'s fee in accordance with wire instructions that Pacific Crest and Granite Financial Group, Inc., respectively, will send to the Escrow Agent.

2.5. In the event that such Draw Down Shares are not in the Purchaser's DTC account and the opinion and supplemental prospectus are not delivered to the Purchaser within three (3) Trading Days of the date of the Escrow Agent's notice, then Purchaser shall have the right to demand, by notice, the return of the Purchase Price, and the applicable Draw Down Notice shall be deemed cancelled.

ARTICLE III

MISCELLANEOUS

3.1. No waiver of any breach of any covenant or provision herein contained shall be deemed a waiver of any preceding or succeeding breach thereof, or of any other covenant or provision herein contained. No extension of time for performance of any obligation or act shall be deemed an extension of the time for performance of any other obligation or act.

3.2. All notices or other communications required or permitted hereunder shall be in writing, and shall be sent by fax, overnight courier, registered or certified mail, postage prepaid, return receipt requested, and shall be deemed received as set forth in the Purchase Agreement.

3.3. This Escrow Agreement shall be binding upon and shall inure to the benefit of the permitted successors and permitted assigns of the parties hereto.

3.4. This Escrow Agreement is the final expression of, and contains the entire agreement between, the parties with respect to the subject matter hereof and supersedes all prior understandings with respect thereto. This Escrow Agreement may not be modified, changed, supplemented or terminated, nor may any obligations hereunder be waived, except by written instrument signed by the parties or by their respective agents duly authorized in writing or as otherwise expressly permitted herein.

3.5. Whenever required by the context of this Escrow Agreement, the singular shall include the plural and masculine shall include the feminine. This Escrow Agreement shall not be construed as if it had been prepared by one of the parties, but rather as if all parties had prepared the same. Unless otherwise indicated, all references to Articles are to this Escrow Agreement.

3.6. The parties hereto expressly agree that this Escrow Agreement shall be governed by, interpreted under and construed and enforced in accordance with the laws of the State of New York. Except as expressly set forth herein, any action to enforce, arising out of, or relating in any way to, any provisions of this Escrow Agreement shall be brought as is more fully set forth in the Purchase Agreement.

3.7. The Escrow Agent's duties hereunder may be altered, amended, modified or revoked only by a writing signed by the Company, Purchaser and the Escrow Agent.

3.8. The Escrow Agent shall be obligated only for the performance of such duties as are specifically set forth herein and may rely and shall be protected in relying or refraining from acting on any instrument reasonably believed by the Escrow Agent to be genuine and to have been signed or presented by the proper party or parties. The Escrow Agent shall not be personally liable for any act the Escrow Agent may do or omit to do hereunder as the Escrow Agent while acting in good faith, excepting only its own gross negligence or willful misconduct.

3.9. The Escrow Agent is hereby expressly authorized to disregard any and all warnings given by any of the parties hereto or by any other person or corporation, excepting only orders or process of courts of law and is hereby expressly authorized to comply with and obey orders, judgments or decrees of any court. In case the Escrow Agent obeys or complies with any such order, judgment or decree, the Escrow Agent shall not be liable to any of the parties hereto or to any other person, firm or corporation by reason of such decree being subsequently reversed, modified, annulled, set aside, vacated or found to have been entered without jurisdiction.

3.10. The Escrow Agent shall not be liable in any respect on account of the identity, authorization or rights of the parties executing or delivering or purporting to execute or deliver the Purchase Agreement or any documents or papers deposited or called for thereunder or hereunder, except as a result of the Escrow Agent's gross negligence or willful misconduct.

3.11. The Escrow Agent shall be entitled to employ such legal counsel and other experts as the Escrow Agent may deem necessary properly to advise the Escrow Agent in connection with the Escrow Agent's duties hereunder, may rely upon the advice of such counsel, and may pay such counsel reasonable compensation therefor, which cost shall be shared equally by the Company and the Purchaser. THE ESCROW AGENT HAS ACTED AS LEGAL COUNSEL FOR THE PURCHASER, AND MAY CONTINUE TO ACT AS LEGAL COUNSEL FOR THE PURCHASER, FROM TIME TO TIME, NOTWITHSTANDING ITS DUTIES AS THE ESCROW AGENT HEREUNDER. THE COMPANY CONSENTS TO THE ESCROW AGENT IN SUCH CAPACITY AS LEGAL COUNSEL FOR THE PURCHASER AND WAIVES ANY CLAIM THAT SUCH REPRESENTATION REPRESENTS A CONFLICT OF INTEREST ON THE PART OF THE ESCROW AGENT. THE COMPANY UNDERSTANDS THAT THE PURCHASER AND THE ESCROW AGENT ARE RELYING EXPLICITLY ON THE FOREGOING PROVISION IN ENTERING INTO THIS ESCROW AGREEMENT. If a conflict of interest shall arise, the parties agree to arrange for a successor escrow agent.

3.12. The Escrow Agent's responsibilities as escrow agent hereunder shall terminate if the Escrow Agent shall resign by written notice to the Company and the Purchaser. In the event of any such resignation, the Purchaser and the Company shall appoint a successor Escrow Agent. The Purchaser and the Company may remove the Escrow Agent and appoint a successor at any time by mutual agreement.

3.13. If the Escrow Agent reasonably requires other or further instruments in connection with this Escrow Agreement or obligations in respect hereto, the necessary parties hereto shall join in furnishing such instruments.

3.14. It is understood and agreed that should any dispute arise with respect to the delivery and/or ownership or right of possession of the documents or the escrow funds held by the Escrow Agent hereunder, the Escrow Agent is authorized and directed in the Escrow Agent's sole discretion (i) to retain in the Escrow Agent's possession without liability to anyone all or any part of said documents or the escrow funds until such disputes shall have been settled either by mutual written agreement of the parties concerned by a final order, decree or judgment of a board of arbitration or a court of competent jurisdiction after the time for appeal has expired and no appeal has been perfected, but the Escrow Agent shall be under no duty whatsoever to institute or defend any such proceedings or (ii) to deliver the escrow funds and any other property and documents held by the Escrow Agent hereunder to a state or Federal court having competent

subject matter jurisdiction and located in the State and City of New York in accordance with the applicable procedure therefor.

3.15. The Company and the Purchaser agree jointly and severally to indemnify and hold harmless the Escrow Agent and its partners, employees, agents and representatives from any and all claims, liabilities, costs or expenses (including reasonable attorneys' fees) in any way arising from or relating to the duties or performance of the Escrow Agent hereunder or the transactions contemplated hereby or by the Purchase Agreement other than any such claim, liability, cost or expense to the extent the same shall have been determined by final, unappealable judgment of a court of competent jurisdiction to have resulted from the gross negligence or willful misconduct of the Escrow Agent.

[SIGNATURE PAGE TO EQUITY LINE ESROW AGREEMENT]

IN WITNESS WHEREOF, the parties hereto have executed this Escrow Agreement as of this 10th day of May, 2001.

STEMCELLS INC.

By: /s/ Martin McGlynn

Martin McGlynn, President & CEO

SATIVUM INVESTMENTS LIMITED

By: /s/ David Sims

David Sims, Director

ESCROW AGENT:

EPSTEIN BECKER & GREEN, P.C.

By: /s/ Robert F. Charron

Robert F. Charron, Authorized Signatory

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 (Form S-1 No. 333-) and related Prospectus of StemCells, Inc. for the registration of up to 10,350,000 shares of its common stock.

/s/ ERNST & YOUNG LLP

Palo Alto, California
May 23, 2001