STEMCELLS INC
Form S-3
July 14, 2004

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As filed with the Securities and Exchange Commission on July 14, 2004

REGISTRATION No. 333-

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-3

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

STEMCELLS, INC.

(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

DELAWARE	94-3078125
(STATE OR OTHER JURISDICTION OF INCORPORATION OR ORGANIZATION)	(I.R.S. EMPLOYER IDENTIFICATION NUMBER)

3155 PORTER DRIVE
PALO ALTO, CA 94304
(650) 475-3100
(ADDRESS OF PRINCIPAL EXECUTIVE OFFICES, INCLUDING ZIP CODE)

IRIS BREST, ESQ.
General Counsel
StemCells, Inc.
3155 Porter Drive
Palo Alto, Ca 94304
(650) 475-3100

(NAME AND ADDRESS, INCLUDING ZIP CODE, AND TELEPHONE NUMBER, INCLUDING AREA CODE, OF AGENT FOR SERVICE)

Please send copies of all communications to:
GEOFFREY DAVIS, ESQUIRE
Ropes & Gray LLP
One International Place
Boston, Massachusetts 02110
(617) 951-7000

Approximate date of commencement of proposed sale to the public: From time to time after the effectiveness of this Registration Statement.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. o

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, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. þ

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

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. o

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

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered (1)(2)	Proposed Maximum Offering Price Per Share (3)	Proposed Maximum Aggregate Offering Price (3)	Amount of Registration Fee
Common Stock $.01 Par Value	16,976,400 Shares	$1.475	$25,040,190	$3,172.59

(1) Shares of common stock which may be offered pursuant to this registration statement include 13,160,000 shares sold by StemCells on June 17, 2004 to various purchasers in a private placement under the terms of a securities purchase agreement dated as of June 16, 2004, and 3,290,000 shares of common stock that may be issued by StemCells under warrants issued to the purchasers in the private placement. In addition, 526,400 shares of common stock that may be issued by StemCells under a warrant issued to the agent in the private placement are being registered hereunder.

(2) In the event of a stock split, stock dividend or similar transaction involving the common stock of the registrant, in order to prevent dilution, the number of shares of common stock registered hereby shall be automatically adjusted to cover the additional shares of common stock in accordance with Rule 416 under the Securities Act of 1933, as amended.

(3) Estimated solely for the purpose of determining the registration fee in accordance with Rule 457(c) under the Securities Act of 1933. The maximum price per share information is based on the average of the high and the low sale price on July 8, 2004.

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 THIS REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE SECURITIES AND EXCHANGE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(A), MAY DETERMINE.

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Information contained in this prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

PROSPECTUS

SUBJECT TO COMPLETION
July 14, 2004

STEMCELLS, INC.

COMMON STOCK
16,976,400 SHARES

StemCells, Inc. (StemCells or the Company) issued 13,160,000 shares of common stock and warrants to purchase up to 3,290,000 shares of common stock to various purchasers in a private placement on June 17, 2004 under the terms of a securities purchase agreement dated as of June 16, 2004, and a warrant to purchase 526,400 shares of common stock to the agent in connection therewith. This prospectus will be used by the selling stockholders listed on pages 9 and 10 to resell, from time to time, their common stock and by such stockholders and the agent to resell the common stock issuable upon exercise of their warrants. We will not receive any of the proceeds from any sale of the common stock offered pursuant to this prospectus.

Before purchasing shares of common stock you should carefully review the Risk Factors section of this Prospectus which begins on page 1.

The common stock is currently listed on The Nasdaq SmallCap Market with the ticker symbol: STEM. On July 8, 2004, the closing price of one share of common stock on The Nasdaq SmallCap Market was $1.44.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this Prospectus is , 2004.

You should rely only on the information contained or incorporated by reference in this prospectus. We have not authorized anyone to provide you with different information. This prospectus may only be used where it is legal to sell these securities. You should not assume that the information contained in this prospectus is accurate as of any date other than the date on the front of this prospectus. Our business, financial condition, results of operations and prospects may have changed since that date.

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SUMMARY

The following summary is qualified in its entirety by the more detailed information and financial statements appearing elsewhere or incorporated by reference in this prospectus. Without limiting the generality of the foregoing, prospective investors should carefully consider factors set forth under the caption Risk Factors below.

OUR COMPANY

We are engaged in research aimed at the development of therapies that would use stem and progenitor cells to treat, and possibly cure, human diseases and injuries such as neurodegenerative diseases (for instance, Batten s, Parkinson s, and Alzheimer s diseases, and other metabolic genetic disorders), demyelinating disorders (for instance, Multiple Sclerosis), spinal cord injuries, stroke, hepatitis, chronic liver failure, and diabetes. We believe that our stem cell technologies, if successfully developed, may provide the basis for effective therapies for these and other conditions. Our aim is to return patients to productive lives and significantly reduce the substantial health care costs often associated with these diseases and disorders. The body uses certain key cells known as stem cells to produce all the functional mature cell types found in normal organs of healthy individuals. Progenitor cells are cells that have already developed from the stem cells, but can still produce one or more types of mature cells within an organ. We use cells derived from fetal or adult tissue sources and are not developing embryonic stem cells for therapeutic use. We are not involved in any activity directed toward human cloning; our programs are all directed toward the use of tissue-derived cells for treating or curing diseases and injuries.

Many diseases, such as Alzheimer s, Parkinson s, and other degenerative diseases of the brain or nervous system, involve the failure of organs that cannot be transplanted. Other diseases, such as hepatitis and diabetes, involve organs such as the liver or pancreas that can be transplanted, but there is a very limited supply of those organs available for transplant. We estimate that these neural, liver and pancreatic conditions affect more than 49 million people in the United States and account for more than $300 billion annually in health care costs[1].

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

Our principal executive offices are located at StemCells, Inc., 3155 Porter Drive, Palo Alto, CA 94304 and our phone number is (650) 475-3100.

RISK FACTORS

Investing in our common stock is risky. In addition to the other information in this prospectus, the following risk factors should be considered carefully in evaluating us and our business. If any of the following risks were to occur, our business, financial condition or results of operations would likely suffer. In that event, the trading price of our common stock could decline, and you could lose all or a part of your investment.

[1] This estimate is based on information from the Alzheimer s Association, the Alzheimer s Disease Education & Referral Center (National Institute on Aging), the National Institutes of Health s National Institute on Neurological Disorders and Stroke, the Foundation for Spinal Cord Injury Prevention, Care & Cure, the Centers for Disease Control and Prevention, University of Georgia College of Pharmacy, the Cincinnati Children s Hospital Medical Center, JAIDs, the American Liver Foundation, and the Parkinson s Action Network.

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Risks Related to our Business

Our financial situation is precarious and, based on currently estimated operating expenses our existing capital resources are only sufficient to fund our operations into 2006.

We have incurred significant operating losses and negative cash flows since inception. We have not achieved profitability and may not be able to realize sufficient revenues to achieve or sustain profitability in the future. We do not expect to be profitable in the next several years, but rather expect to incur additional operating losses. We have limited liquidity and capital resources and must obtain significant additional capital resources in order to sustain our product development efforts and for acquisition of technologies and intellectual property rights, preclinical and clinical testing of our anticipated products, pursuit of regulatory approvals, acquisition of capital equipment, laboratory and office facilities, establishment of production capabilities, general and administrative expenses and other working capital requirements. We rely on cash reserves and proceeds from equity and debt offerings, proceeds from the transfer or sale of our intellectual property rights, equipment, facilities or investments, and government grants and funding from collaborative arrangements, if obtainable, to fund our operations. If we exhaust our cash reserves and are unable to realize adequate financing, we may be unable to meet operating obligations and be required to initiate bankruptcy proceedings. Our existing capital resources are only sufficient to fund our operations into 2006. These conditions raise doubt about our ability to continue as a going concern. The financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of this uncertainty.

We intend to pursue opportunities to obtain additional financing in the future through equity and debt financings, grants and collaborative research arrangements. The source, timing and availability of any future financing will depend principally upon market conditions, interest rates and, more specifically, on our progress in our exploratory, preclinical and future clinical development programs. Funding may not be available when needed at all, or on terms acceptable to us. Lack of necessary funds may require us to delay, scale back or eliminate some or all of our research and product development programs and/or our capital expenditures or to license our potential products or technologies to third parties.

Our technology is at an early stage of discovery and development, and we may fail to develop any commercially acceptable products.

Our stem cell technology still in the pre-clinical stage for the brain stem cell and at the discovery phase for the liver and pancreas stem cells and has not yet led to the development of any product. We may fail to discover the stem cells we are seeking, to develop any products, to obtain regulatory approvals, to enter clinical trials, or to commercialize any products. Any product using stem cell technology may fail to:

survive and persist in the desired location;

provide the intended therapeutic benefits;

properly integrate into existing tissue in the desired manner; or

achieve therapeutic benefits equal to or better than the standard of treatment at the time of testing.

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

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

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Moreover, because our cell therapy treatments will be derived from tissue of individuals other than the patient (that is, they will be non-self or allogeneic transplant products), patients will require the use of immunosuppressive drugs such as cyclosporine, FK506, or others to prevent rejection of the cells. While immunosuppression is now standard in connection with allogeneic transplants of various kinds, long-term maintenance on immunosuppressive drugs can produce complications that include infection, cancer, cardiovascular disease, renal dysfunction and other side effects depending upon which immunosuppressive regimen is employed. Immunosuppression has not been tested with our therapies since we have not yet conducted any clinical trials.

We have payment obligations resulting from real property owned or leased by us in Rhode Island, which diverts funding from our stem cell research and development.

Prior to our reorganization in 1999 and the consolidation of our business in California, we carried out our former encapsulated cell therapy programs in Lincoln, Rhode Island, where we also had our administrative offices. Although we have vacated the Rhode Island facilities, we remain obligated to make on average, lease payments and payments for operating costs of approximately $1,450,000 per year before sub-tenant rent income for our former science and administrative facility, which we have leased through June 30, 2013, and debt service payments and payments for operating costs of approximately $500,000 per year for our former encapsulated cell therapy pilot manufacturing facility, which we own. We have currently subleased a portion of the science and administrative facility, and are seeking to sublease the remaining portion, but we cannot be sure that we will be able to keep any part of the facility subleased for the duration of our obligation. We have currently subleased the entire pilot manufacturing facility to a privately-held biotechnology company, but may not be able to sublease or sell the facility in the future once the current sublease agreements expire. These continuing costs significantly reduce our cash resources and adversely affect our ability to fund further development of our stem cell technology.

We may need but fail to obtain partners to support our stem cell development efforts and to commercialize our technology.

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

We have a history of operating losses, and we may fail to obtain revenues or become profitable.

We expect to continue to incur substantial operating losses in the future in order to conduct our research and development activities, and, if those activities are successful, to fund clinical trials and other expenses. These expenses include the cost of acquiring technology, product testing, acquiring regulatory approvals, establishing production, marketing, sales and distribution programs and administrative expenses. We have not earned any revenues from sales of any product. All of our past revenues have been derived from, and any revenues we may obtain for the foreseeable future are expected to be derived from, cooperative agreements, research grants, investments and interest on invested capital. We currently have no cooperative agreements, we have only one current research grant for our

stem cell technology, and we may not obtain any such agreements or additional grants in the future or receive any revenues from them.

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If we are unable to protect our patents and proprietary rights, our business, financial condition and results of operations will be harmed.

We own or license a number of patents and pending patent applications related to various stem and progenitor cells and methods of deriving and using them, including human neural stem cell cultures. Patent protection for products such as those we propose to develop is highly uncertain and involves complex and continually evolving factual and legal questions. The governmental authorities that consider patent applications can deny or significantly reduce the patent coverage requested in an application before or after issuing the patent. Consequently, we do not know whether any of our pending applications will result in the issuance of patents, if any existing or future patents will provide sufficient protection or significant commercial advantage or if others will circumvent these patents. We cannot be certain that we were the first to discover the inventions covered by each of our pending patent applications or that we were the first to file patent applications for such inventions because patent applications are secret until they are published, and because publication of discoveries in the scientific or patent literature often lags behind actual discoveries. Patents may not issue from our pending or future patent applications or, if issued, may not be of commercial benefit to us. In addition, our patents may not afford us adequate protection from competing products. Third parties may challenge our patents or governmental authorities may declare them invalid. In the event that a third party has also filed a patent application relating to inventions claimed in our patent applications, we may have to participate in proceedings to determine priority of invention. This could result in substantial uncertainties and cost for us, even if the eventual outcome is favorable to us, and the outcome might not be favorable to us. Even if a patent issues, a court could decide that the patent was issued invalidly. Further, patents issue for a limited term, and our patents may expire before we utilize them profitably. Under the procedures of the European Patent Office, third parties may oppose our issued European patents during the relevant opposition period. Such oppositions could result in substantial uncertainties and cost for us, even if the eventual outcome is favorable to us, and the outcome might not be favorable to us. One party has opposed two of our granted European patents. While we are confident in our position, there is no guarantee that we will prevail. If we are unsuccessful in our defense of the opposed patents, all claimed rights in the opposed patents will be lost in Europe.

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

If others are first to discover and patent the stem cells we are seeking to discover, we could be blocked from further work on those stem cells.

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

If we are unable to obtain necessary licenses to third-party patents and other rights, we may not be able to commercially develop our expected products.

A number of pharmaceutical, biotechnology and other companies, universities and research institutions have filed patent applications or have received patents relating to cell therapy, stem cells and other technologies potentially relevant to or necessary for our expected products. We cannot predict which, if any, of the applications will issue as

patents. If third party patents or patent applications contain valid claims that our technology infringes upon their technology, we may be unable to obtain licenses to these patents at a reasonable cost, if at all, and may also be unable to develop or obtain alternative technology. If we are unable to obtain such licenses at a reasonable cost, our business could be significantly harmed. We have obtained rights from universities and research institutions to technologies, processes and compounds that we believe may be important to the development of our products. These licensors, however, may cancel our licenses or convert them to non-exclusive licenses if we fail to use the relevant technology or otherwise breach these agreements. Loss of these licenses could expose us to the risks of third-party patents and/or technology. We can give no assurance that any of these licenses will provide effective protection against our competitors.

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We compete with companies that have significant advantages over us.

The market for therapeutic products to treat diseases of, or injuries to, the central nervous system (CNS) is large, and competition is intense. The majority of the products currently on the market or in development are small molecule pharmaceutical compounds. Many of the world s pharmaceutical companies, including Merck, Pfizer, Abbott, Bristol-Myers Squibb, Novartis and GlaxoSmithKline, have made significant commitments to the CNS field. Any cell-based therapy to treat diseases of, or injuries to, the CNS is likely to face intense competition from the small molecule sector. In addition, a number of biotechnology companies with resources far greater than ours may also emerge as competitors. These include Genzyme, Amgen, Cephalon, Transkaryotic Therapies, BioMarin, Celgen, Biogen, and Titan Pharmaceuticals. Finally, we also expect to compete with smaller biotechnology companies, some of which are privately owned, such as Neuralstem, Geron, NeuroNova, ReNeuron, ES Cell International, and CellFactors/Diacrin.

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

In the field of diabetes, a number of major companies currently market products for the treatment of diabetes and are also engaged in the research and development of new therapies. Such companies include Eli Lilly, Novo Nordisk, J&J, Amylin, Serono. Consequently, should we successfully develop a cell-based therapy for diabetes, we would expect to face severe competition from these and similar companies.

In the liver field, there are no broad-based therapies for the treatment of liver disease at present. The primary therapy is liver transplantation, which is limited by the availability of matched donor organs. Liver-assist devices, when and if they become available, could also be used to help patients while they await suitably matched organs for transplantation.

Development of our technology is subject to and restricted by extensive government regulation, which could impede our business.

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

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

Although we do not use embryonic stem cells, government regulation and threatened regulation of embryonic tissue may lead top researchers to leave the field of stem cell research, or the country, in order to assure that their careers will not be impeded by restrictions on their work. Similarly, these factors may induce the best graduate students to choose other fields less vulnerable to changes in regulatory oversight, thus exacerbating the risk, discussed below, that we may not be able to attract and retain the scientific personnel we need in face of the

competition among pharmaceutical, biotechnology and health care companies, universities and research institutions for what may become a shrinking class of qualified individuals. In addition, we cannot assure you that constraints on the use of embryonic stem cells will not be extended to use of fetal stem cells. Moreover, it is possible that concerns regarding research using embryonic stem cells will impact our ability to attract collaborators and investors and our stock price.

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

If we lose the services of key personnel or are unable to attract and retain additional qualified personnel, we may have to delay, reduce or eliminate some or all of our research and development programs.

We are highly dependent on the principal members of our management and scientific staff and some of our outside consultants, including the members of our scientific advisory board, our chief executive officer, our vice president and the directors of our neural stem cell and liver stem cell programs. Although we have entered into employment agreements with some of these individuals, they may terminate their agreements at any time. In addition, our operations are dependent upon our ability to attract and retain additional qualified scientific and management personnel. We may not be able to attract and retain the personnel we need on acceptable terms given the competition for experienced personnel among pharmaceutical, biotechnology and health care companies, universities and research institutions.

Since health care insurers and other organizations may not pay for our products or may impose limits on reimbursements, our ability to become profitable could be reduced.

In both domestic and foreign markets, sales of potential products are likely to depend in part upon the availability and amounts of reimbursement from third party health care payor organizations, including government agencies, private health care insurers and other health care payors, such as health maintenance organizations and self-insured employee plans. There is considerable pressure to reduce the cost of therapeutic products, and government and other third party payors are increasingly attempting to contain health care costs by limiting both coverage and the level of reimbursement for new therapeutic products and by refusing, in some cases, to provide any coverage for uses of approved products for disease indications for which the U.S. Food and Drug Administration has not granted marketing approval. Significant uncertainty exists as to the reimbursement status of newly approved health care products. We can give no assurance that reimbursement will be provided by such payors at all or without substantial delay or, if such reimbursement is provided, that the approved reimbursement amounts will be sufficient to enable us to sell products we develop on a profitable basis. Changes in reimbursement policies could also adversely affect the willingness of pharmaceutical companies to collaborate with us on the development of our stem cell technology. In certain foreign markets, pricing or profitability of prescription pharmaceuticals is subject to government control. We also expect that there will continue to be a number of federal and state proposals to implement government control over health care costs. Efforts at health care reform are likely to continue in future legislative sessions. We do not know what legislative proposals federal or state governments will adopt or what actions federal, state or private payers for health care goods and services may take in response to health care reform proposals or legislation. We cannot predict the effect government control and other health care reforms may have on our business.

We have limited liquidity and capital resources and may not obtain the significant capital resources we will need to sustain our research and development efforts.

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

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license our technology or any potential products to third parties rather than commercialize them ourselves. 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 successfully any such arrangements will depend upon market conditions and, more specifically, on continued progress in our research and development efforts.

Risks Related to the Securities Market and this Offering

Our stock price has been, and will likely continue to be, highly volatile, which may negatively affect our ability to obtain additional financing in the future.

The market price of our stock has been and is likely to continue to be highly volatile due to the risks and uncertainties described in this section of the prospectus, as well as other factors, including:

our ability to develop and test our technology;

our ability to patent or obtain licenses to necessary technology;

conditions and publicity regarding the industry in which we operate, as well as the specific areas our product candidates seek to address;

competition in our industry;

price and volume fluctuations in the stock market at large that are unrelated to our operating performance; and

comments by securities analysts, or our failure to meet market expectations.

Over the two-year period ending June 30, 2004, the closing price of our common stock as reported on the Nasdaq National Market and the Nasdaq SmallCap Market ranged from a high of $2.41 to a low of $0.51. As a result of this volatility, your investment in our stock is subject to substantial risk. Furthermore, the volatility of our stock price could negatively impact our ability to raise capital in the future.

If our common stock price drops significantly, we may be delisted from the NASDAQ SmallCap Market, which could eliminate the trading market for our common stock.

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

to raise funds through the sale of our common stock or securities convertible into our common stock.

We are contractually obligated to issue shares in the future, diluting your interest in us.

As of June 30, 2004, there were outstanding and exercisable warrants to purchase 6,038,430 shares of our common stock, at a weighted average exercise price of $2.09 per share. As of June 30, 2004, there were also outstanding and exercisable options to purchase 5,095,389 shares of our common stock, at a weighted average exercise price of $2.89 per share. Moreover, we expect to issue additional options to purchase shares of our

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common stock to compensate employees, consultants and directors, and may issue additional shares to raise capital, to acquire other companies or technologies, to pay for services, or for other corporate purposes. Any such issuances will have the effect of further diluting the interest of the purchasers of the securities being sold in this offering.

NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated in this prospectus by reference may contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the Securities Act), and Section 21E of the Securities Exchange Act of 1934, as amended (the Exchange Act). These statements may be identified by the use of forward-looking words or phrases such as anticipate, believe, could, expect, intend, loo forward, may, planned, potential, should, will, and would. These forward-looking statements reflect our cur expectations and are based upon currently available data. The Private Securities Litigation Reform Act of 1995 provides a safe harbor for such forward-looking statements. In order to comply with the terms of the safe harbor, we note that a variety of factors could cause actual results and experience to differ materially from the anticipated results or other expectations expressed in the forward-looking statements. Such statements include, without limitation, all statements as to expectation or belief and statements as to our future results of operations, the progress of our research, product development and clinical programs, the need for, and timing of, additional capital and capital expenditures, partnering prospects, costs of manufacture of products, the protection of and the need for additional intellectual property rights, effects of regulations, the need for additional facilities and potential market opportunities. Our actual results may vary materially from those contained in such forward-looking statements because of risks to which we are subject, such as failure to obtain a corporate partner or partners to support the development of our stem cell programs, our inability to sell, assign or sublease our interest in our facilities related to our encapsulated cell technology program, risks of delays in, or adverse results from, our research, development and clinical testing programs, obsolescence of our technology, lack of available funding, competition from third parties, intellectual property rights of third parties, failure of our collaborators to perform, regulatory constraints, litigation and other risks to which we are subject.

USE OF PROCEEDS

All net proceeds from the sale of the shares of common stock will go to the stockholders who offer and sell them. We will not receive any proceeds from this offering. We will receive approximately $7,245,900 if the warrants issued to the selling stockholders and the agent are exercised in full and the purchase price is paid in cash. Proceeds of such exercise, if any, will be used for working capital and general corporate purposes, as well as in connection with selected acquisitions that may be considered in the future or for other strategic purposes.

SELLING STOCKHOLDERS

On June 16, 2004, we entered into a securities purchase agreement with each of Alpha Capital AKtinengesellschaft, Basso Equity Opportunity Holding Fund Ltd., Basso Multi-Strategy Holding Fund Ltd., C.E. Unterberg, Towbin Capital Partners I, L.P., Capital Ventures International, Castle Creek Healthcare Partners LLC, Cranshire Capital L.P., Enable Growth Partners L.P., Excalibur Limited Partnership, Greenwich Growth Fund Limited, Gryphon Master Fund, L.P., Heartland Value Plus Fund, Heimdall Investment Ltd., Iroquois Capital LP, JMG Capital Partners, LP, JMG Triton Offshore Fund, Ltd., Mainfield Enterprises, Inc., Omicron Master Trust, Portside Growth and Opportunity Fund, RHP Master Fund, Ltd., Richard Friedman, SF Capital Partners Ltd, Smithfield Fiduciary LLC, Solar Group S.A., SRG Capital, LLC, Stephen Rizzone, Stonestreet Limited Partnership, TCMP3 Partners, Truk International Fund, L.P., Truk Opportunity Fund, LLC, UBS O Connor LLC f/b/o O Connor

PIPES Corporate Strategies Master Ltd., Vicis Capital Master Fund, Victus Capital, LP and Whalehaven Fund Limited. Under that agreement, we issued the following securities on June 17, 2004 in exchange for total cash consideration of approximately $20,003,200:

a total of 13,160,000 shares of our common stock; and

five-year warrants to purchase 3,290,000 shares of common stock at an exercise price of $1.90 per share.

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C.E. Unterberg, Towbin LLC received fees totaling $1,200,192, expense reimbursement of approximately $25,000 and a warrant to purchase 526,400 shares of common stock for acting as placement agent in connection with the sale of securities under the securities purchase agreement.

Pursuant to the securities purchase agreement with the selling stockholders, we filed a registration statement, of which this prospectus forms a part, in order to permit those stockholders to resell to the public the shares of common stock that they purchased pursuant to the securities purchase agreement and that they acquire upon any exercise of the warrants. We have registered the number of shares required under the securities purchase agreement, which number is based upon the actual number of shares sold to the selling stockholders under the securities purchase agreement and the number of shares issuable upon any exercise of the warrants, and a number of shares equal to the number of shares of common stock for which the warrant issued to the agent in connection with the private placement is exercisable.

The selling stockholders and the agent may sell up to 16,976,400 shares of our common stock pursuant to this prospectus.

The following table sets forth information regarding beneficial ownership of our common stock by the selling stockholders as of June 30, 2004, and the number of shares of common stock listed as beneficially owned and potentially offered by this prospectus represents the number of shares of common stock actually owned as of June 30, 2004 and the number of shares issuable upon exercise of the warrants. Because the selling stockholders may offer all or some portion of the common stock listed in the table pursuant to this prospectus or otherwise, no estimate can be given as to the amount or percentage of common stock that will be held by the selling stockholders upon termination of the offering. The selling stockholders may sell all, part or none of the shares listed. The percentage of ownership shown in the table is based on 54,216,455 shares of common stock issued and outstanding as of June 30, 2004.

Selling Stockholder	Shares Owned and Ownership Percentage Prior to Offering (1)		Shares Being Offered	Shares Owned And Ownership Percentage After Offering (1)	
Alpha Capital AKtinengesellschaft (2)	411,180	*	411,180	0	*
Basso Equity Opportunity Holding Fund Ltd. (3)	555,100	*	555,100	0	*
Basso Multi-Strategy Holding Fund Ltd. (4)	1,500,825	*	1,500,825	0	*
C.E. Unterberg, Towbin Capital Partners I, L.P. (5)	631,250	*	631,250	0	*
Capital Ventures International (6)	411,185	*	411,185	0	*
Castle Creek Healthcare Partners LLC (7)	411,185	*	411,185	0	*
Cranshire Capital L.P. (8)	822,370	*	822,370	0	*
Enable Growth Partners L.P. (9)	287,830	*	287,830	0	*
Excalibur Limited Partnership (10)	412,500	*	412,500	0	*
Greenwich Growth Fund Limited (11)	82,235	*	82,235	0	*
Gryphon Master Fund, L.P. (12)	1,027,965	*	1,027,965	0	*
Heartland Value Plus Fund (13)	2,878,290	*	2,878,290	0	*
Heimdall Investment Ltd. (14)	616,775	*	616,775	0	*
Iroquois Capital LP (15)	411,185	*	411,185	0	*
JMG Capital Partners, LP (16)	616,775	*	616,775	0	*
JMG Triton Offshore Fund, Ltd. (17)	616,775	*	616,775	0	*

Mainfield Enterprises, Inc. (18)	411,185	*	411,185	0	*

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Selling Stockholder	Shares Owned and Ownership Percentage Prior to Offering (1)		Shares Being Offered	Shares Owned And Ownership Percentage After Offering (1)	
Omicron Master Trust (19)	246,710	*	246,710	0	*
Portside Growth and Opportunity Fund (20)	205,590	*	205,590	0	*
RHP Master Fund, Ltd. (21)	411,185	*	411,185	0	*
Richard Friedman (22)	82,235	*	82,235	0	*
SF Capital Partners Ltd (23)	986,840	*	986,840	0	*
Smithfield Fiduciary LLC (24)	616,780	*	616,780	0	*
Solar Group S.A. (25)	25,000	*	25,000	0	*
SRG Capital, LLC (26)	412,500	*	412,500	0	*
Stephen Rizzone (27)	82,235	*	82,235	0	*
Stonestreet Limited Partnership (28)	370,065	*	370,065	0	*
TCMP3 Partners (29)	205,590	*	205,590	0	*
Truk International Fund, L.P. (30)	17,270	*	17,270	0	*
Truk Opportunity Fund, LLC (31)	229,440	*	229,440	0	*
UBS O Connor LLC f/b/o O Connor PIPES Corporate Strategies Master Ltd. (32)	125,000	*	125,000	0	*
Vicis Capital Master Fund (33)	41,120	*	41,120	0	*
Victus Capital, L.P. (34)	164,475	*	164,475	0	*
Whalehaven Fund Limited (35)	123,355	*	123,355	0	*
C.E. Unterberg, Towbin LLC (36)	526,400	*	526,400	0	*

(1) Assumes that all of the shares held by the selling stockholders and being offered under this prospectus are sold and that the selling stockholders acquire no additional shares of common stock before the completion of this offering.

(2) Includes 328,944 shares of common stock and 82,236 shares issuable upon exercise of common stock purchase warrants.

(3) Includes 444,080 shares of common stock and 111,020 shares issuable upon exercise of common stock purchase warrants. Basso Capital Management, L.P. is the Investment Manager to Basso Equity Opportunity Holding fund Ltd. Howard I. Fischer is a managing member of Basso GP, LLC, the General Partner of Basso Capital Management, L.P.

(4) Includes 1,200,660 shares of common stock and 300,165 shares issuable upon exercise of common stock purchase warrants. Basso Asset Management, L.P. is the Investment Manager to Basso Multi-Strategy Holding Fund Ltd. Howard I. Fischer is a managing member of Basso GP, LLC, the General Partner of Basso Asset Management, L.P.

(5) Includes 505,000 shares of common stock and 126,250 shares issuable upon exercise of common stock purchase warrants. The selling stockholder is or may be an affiliate of a registered broker-dealer. We have been informed by each selling stockholder that such selling stockholder acquired the securities offered by this prospectus for its own account in the ordinary course of business, and that, at the time it acquired the securities, it had no agreement or understanding, direct or indirect, with any person to distribute such securities. Thomas I.

Unterberg and Michelle O Connor exercise voting and investment control over these securities.

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(6) Includes 328,948 shares of common stock and 82,237 shares issuable upon exercise of common stock purchase warrants. The selling stockholder is or may be an affiliate of a registered broker-dealer. We have been informed by each selling stockholder that such selling stockholder acquired the securities offered by this prospectus for its own account in the ordinary course of business, and that, at the time it acquired the securities, it had no agreement or understanding, direct or indirect, with any person to distribute such securities. Heights Capital Management, Inc., the authorized agent of Capital Ventures International (CVI), has discretionary authority to vote and dispose of shares held by CVI and may be deemed to the beneficial owner of these shares. Martin Kobinger, in his capacity as Investment Manager of Heights Capital Management, Inc., may also be deemed to have investment discretion and voting power over the shares held by CVI. Mr. Kobinger disclaims any such beneficial ownership of the shares.

(7) Includes 328,948 shares of common stock and 82,237 shares issuable upon exercise of common stock purchase warrants. The selling stockholder is or may be an affiliate of a registered broker-dealer. We have been informed by each selling stockholder that such selling stockholder acquired the securities offered by this prospectus for its own account in the ordinary course of business, and that, at the time it acquired the securities, it had no agreement or understanding, direct or indirect, with any person to distribute such securities. As investment manager under a management agreement, Castle Creek Partners, LLC may exercise dispositive and voting power with respect to the shares owned by Castle Creek Healthcare Partners, LLC. Castle Creek Partners, LLC disclaims beneficial ownership of such shares. Daniel Asher is the managing member of Castle Creek Partners, LLC. Mr. Asher disclaims beneficial ownership of the shares owned by Castle Creek Healthcare Partners, LLC.

(8) Includes 657,896 shares of common stock and 164,474 shares issuable upon exercise of common stock purchase warrants. Mitchell P. Kopin, President of Downsview Capital, Inc., the general partner of Cranshire Capital, L.P. has sole voting and investment control over these securities.

(9) Includes 230,264 shares of common stock and 57,566 shares issuable upon exercise of common stock purchase warrants. The selling stockholder is or may be an affiliate of a registered broker-dealer. We have been informed by each selling stockholder that such selling stockholder acquired the securities offered by this prospectus for its own account in the ordinary course of business, and that, at the time it acquired the securities, it had no agreement or understanding, direct or indirect, with any person to distribute such securities. Mitch Levine exercises voting and investment control over these securities.

(10) Includes 330,000 shares of common stock and 82,500 shares issuable upon exercise of common stock purchase warrants. William S. Hechter exercises voting and investment control over these securities.

(11) Includes 65,788 shares of common stock and 16,447 shares issuable upon exercise of common stock purchase warrants. Evan Schemenauer, Jonathan Walk and Don Dunstan exercise voting and investment control over these securities.

(12) Includes 822,372 shares of common stock and 205,593 shares issuable upon exercise of common stock purchase warrants. E.B. Lyon, IV exercises voting and investment control over these securities.

(13) Includes 2,302,632 shares of common stock and 575,658 shares issuable upon exercise of common stock purchase warrants.

(14) Includes 493,420 shares of common stock and 123,355 shares issuable upon exercise of common stock purchase warrants. The selling stockholder is or may be an affiliate of a registered broker-dealer. We have been informed by each selling stockholder that such selling stockholder acquired the securities offered by this

prospectus for its own account in the ordinary course of business, and that, at the time it acquired the securities, it had no agreement or understanding, direct or indirect, with any person to distribute such securities. HBK Investments L.P. may be deemed to have sole voting power and sole dispositive power over the shares held by Heimdall Investments Ltd. pursuant to an Investment Management Agreement between HBK Investments L.P. and Heimdall Investments Ltd. The following individuals have control over HBK Investments L.P. and disclaim beneficial ownership over these securities: Kenneth M. Hirsh, Laurence H. Lebowitz, William E. Rose, Richard L. Booth, David C. Haley and Jamiel A. Akhter.

(15) Includes 328,948 shares of common stock and 82,237 shares issuable upon exercise of common stock purchase warrants. Joshua Silverman exercises voting and investment control over these securities.

(16) Includes 493,420 shares of common stock and 123,355 shares issuable upon exercise of common stock purchase warrants. JMG Capital Partners, L.P. (JMG Partners) is a California limited partnership. Its general

partner is JMG Capital Management, LLC (the Manager), a Delaware limited liability company and an investment adviser registered with the Securities and Exchange Commission (the SEC). The Manager has voting and dispositive power over JMG Partners investments, including the Registrable Securities. The equity interests of the Manager are owned by JMG Capital Management, Inc., (JMG Capital) a Delaware corporation, and Asset Alliance Holding Corp., a Delaware corporation. Jonathan M. Glaser is the Executive Officer and Director of JMG Capital and has sole investment discretion over JMG Partners portfolio holdings.

(17) Includes 493,420 shares of common stock and 123,355 shares issuable upon exercise of common stock purchase warrants. JMG Triton Offshore Fund, Ltd. (the Fund) is an international business company under the laws of the British Virgin Islands. The Fund s investment manager is Pacific Assets Management LLC, a Delaware limited liability company (the Manager). The Manager is an investment adviser registered with the Securities and Exchange Commission and has voting and dispositive power over the Fund s investments, including the Registrable Securities. The equity interests of the Manager are owned by Pacific Capital Management, Inc., a Delaware company (Pacific) and Asset Alliance Holding Corp., a Delaware Company. The equity interests of Pacific are owned by Messrs. Roger Richter, Jonathan M. Glaser and Daniel A. David and Messrs. Glaser and Richter have sole investment discretion over the Fund s portfolio holdings.

(18) Includes 328,948 shares of common stock and 82,237 shares issuable upon exercise of common stock purchase warrants. Pursuant to an investment management agreement, Avi Vigder has voting and dispositive control over these securities. Avi Vigder disclaims beneficial ownership of said securities.

(19) Includes 197,368 shares of common stock and 49,342 shares issuable upon exercise of common stock purchase warrants. Omicron Capital, L.P., a Delaware limited partnership (Omicron Capital), serves as investment manager to Omicron Master Trust, a trust formed under the laws of Bermuda (Omicron), Omicron Capital, Inc., a Delaware corporation (OCI) serves as general partner of Omicron Capital, and Winchester Global Trust Limited (Winchester) serves as the trustee of Omicron. By reason of such relationships, Omicron Capital and OCI may be deemed to share dispositive power over the shares of our common stock owned by Omicron, and Winchester may be deemed to share voting and dispositive power over the shares of our common stock owned by Omicron. Omicron Capital, OCI and Winchester disclaim beneficial ownership of such shares of our common stock. Omicron Capital has delegated authority from the board of directors of Winchester regarding the portfolio management decisions with respect to the shares of common stock owned by Omicron and, as of June 30, 2004, Mr. Olivier H. Morali and Mr. Bruce T. Bernstein, officers of OCI, have delegated authority from the board of directors of OCI regarding the portfolio management decisions of Omicron Capital with respect to the shares of common stock owned by Omicron. By reason of delegated authority, Messrs. Morali and Bernstein may be deemed to share dispositive power over the shares of our common stock owned by Omicron. Messrs. Morali and Bernstein disclaim beneficial ownership of such shares of our common stock and neither of such persons has any legal right to maintain such delegated authority. No other person has sole or shared voting or dispositive power with respect to the shares of our common stock being offered by Omicron, as those terms are used for purposes under Regulation 13D-G of the Securities Exchange Act of 1934, as amended. Omicron and Winchester are not affiliates of one another, as that term is used for purposes of the Securities Exchange Act of 1934, as amended, or of any other person named in this prospectus as selling stockholder. No person or group (as that term is used in Section 13(d) of the Securities Exchange Act of 1934, as amended, or the SEC s Regulation 13D-G) controls Omicron and Winchester.

(20) Includes 164,472 shares of common stock and 41,118 shares issuable upon exercise of common stock purchase warrants. The investment advisor to Portside Growth and Opportunity Fund is Ramius Capital Group, LLC (Ramius Capital). Ramius Securities, LLC, an NASD member, is an affiliate of Ramius Capital. However, Ramius Securities, LLC will not sell any shares purchased in this offering by Portside Growth and Opportunity Fund (Portside) and will receive no compensation whatsoever in connection with sales of shares

purchased in this transaction. Ramius Capital is the investment adviser of Portside and consequently has voting control and investment discretion over securities held by Portside. Ramius Capital disclaims beneficial ownership of the shares held by Portside. Peter A. Cohen, Morgan B. Stark, Thomas W. Strauss and Jeffrey M. Solomon are the sole managing members of C4S & Co., LLC, the sole managing member of Ramius Capital. As a result, Messrs. Cohen, Stark, Strauss and Solomon may be considered beneficial owners of any shares deemed to be beneficially owned by Ramius Capital. Messrs. Cohen, Stark, Strauss and Solomon disclaim beneficial ownership of these shares.

(21) Includes 328,948 shares of common stock and 82,237 shares issuable upon exercise of common stock purchase warrants.

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(22) Includes 65,788 shares of common stock and 16,447 shares issuable upon exercise of common stock purchase warrants.

(23) Includes 789,472 shares of common stock and 197,368 shares issuable upon exercise of common stock purchase warrants. The selling stockholder is or may be an affiliate of a registered broker-dealer. We have been informed by each selling stockholder that such selling stockholder acquired the securities offered by this prospectus for its own account in the ordinary course of business, and that, at the time it acquired the securities, it had no agreement or understanding, direct or indirect, with any person to distribute such securities. Michael A. Roth and Brian J. Stark are the founding members and direct the management of Staro Asset Management, L.L.C., a Wisconsin limited liability company (Staro), which acts as investment manager and has sole power to direct the management of SF Capital Partners Ltd. Through Staro, Messrs. Roth and Stark possess sole voting and dispositive power over all of the shares owned by SF Capital Partners Ltd.

(24) Includes 493,424 shares of common stock and 123,356 shares issuable upon exercise of common stock purchase warrants. The selling stockholder is or may be an affiliate of a registered broker-dealer. We have been informed by each selling stockholder that such selling stockholder acquired the securities offered by this prospectus for its own account in the ordinary course of business, and that, at the time it acquired the securities, it had no agreement or understanding, direct or indirect, with any person to distribute such securities. Highbridge Capital Management, LLC is the trading manager of Smithfield Fiduciary LLC and consequently has voting control and investment discretion over securities held by Smithfield. Glenn Dubin and Henry Swieca control Highbridge. Each of Highbridge, Glenn Dubin and Henry Swieca disclaims beneficial ownership of the securities held by Smithfield.

(25) Includes 20,000 shares of common stock and 5,000 shares issuable upon exercise of common stock purchase warrants. Evelyn Todd exercises voting and investment control over these securities.

(26) Includes 330,000 shares of common stock and 82,500 shares issuable upon exercise of common stock purchase warrants. The selling stockholder is or may be an affiliate of a registered broker-dealer. We have been informed by each selling stockholder that such selling stockholder acquired the securities offered by this prospectus for its own account in the ordinary course of business, and that, at the time it acquired the securities, it had no agreement or understanding, direct or indirect, with any person to distribute such securities. Edwin Mecabe and Tai May Lee jointly exercise voting and investment control over these securities.

(27) Includes 65,788 shares of common stock and 16,447 shares issuable upon exercise of common stock purchase warrants.

(28) Includes 296,052 shares of common stock and 74,013 shares issuable upon exercise of common stock purchase warrants. Michael Finkelstein and Libby Leonard exercise voting and investment control over these securities.

(29) Includes 164,472 shares of common stock and 41,118 shares issuable upon exercise of common stock purchase warrants. Steven Slawson and Walter Schenker exercise voting and investment control over these securities.

(30) Includes 13,816 shares of common stock and 3,454 shares issuable upon exercise of common stock purchase warrants. Michael E. Fein and Stephen E. Saltzstein, as principals of Atoll Asset Management, LLC, the Managing Member of Truk International Fund, LP, exercise investment and voting control over these securities. Both Mr. Fein and Mr. Saltzstein disclaim beneficial ownership of the common stock owned by this

selling stockholder.

(31) Includes 183,552 shares of common stock and 45,888 shares issuable upon exercise of common stock purchase warrants. Michael E. Fein and Stephen E. Saltzstein, as principals of Atoll Asset Management, LLC, the Managing Member of Truk Opportunity Fund, LLC, exercise investment and voting control over these securities. Both Mr. Fein and Mr. Saltzstein disclaim beneficial ownership of the common stock owned by this selling stockholder.

(32) Includes 100,000 shares of common stock and 25,000 shares issuable upon exercise of common stock purchase warrants. O Connor PIPES Corporate Strategies Master Ltd. Is a fund managed by UBS O Connor LLC, a wholly owned subsidiary of UBS AG, which is traded on the New York Stock Exchange.

(33) Includes 32,896 shares of common stock and 8,224 shares issuable upon exercise of common stock purchase warrants. Richard Han and Shad Stastney exercise voting and investment control over these securities.

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(34) Includes 131,580 shares of common stock and 32,895 shares issuable upon exercise of common stock purchase warrants. Richard Han and Shad Stastney exercise voting and investment control over these securities.

(35) Includes 98,684 shares of common stock and 24,671 shares issuable upon exercise of common stock purchase warrants. Evan Schemenauer, Authur Jones and Jennifer Kelly exercise voting and investment control over these securities.

(36) Includes 526,400 shares issuable upon exercise of common stock purchase warrants. The selling stockholder is or may be an affiliate of a registered broker-dealer. We have been informed by each selling stockholder that such selling stockholder acquired the securities offered by this prospectus for its own account in the ordinary course of business, and that, at the time it acquired the securities, it had no agreement or understanding, direct or indirect, with any person to distribute such securities.

(*) Less than one percent.

PLAN OF DISTRIBUTION

The selling stockholders and any of their assignees, donees and successors-in-interest may, from time to time, sell any or all of their shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These sales may be at fixed or negotiated prices. The selling stockholders may use any one or more of the following methods when selling shares:

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

block trades in which the broker-dealer 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-dealer as principal and resale by the broker-dealer for its account;

an exchange distribution in accordance with the rules of the applicable exchange;

privately negotiated transactions;

settlement of short sales created after the date of this prospectus;

broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;

a combination of any such methods of sale; and

any other method permitted pursuant to applicable law.

The selling stockholders may also sell shares under Rule 144 under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the selling stockholders may arrange for other brokers dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholders (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated. The selling stockholders do not expect these commissions and discounts to exceed what is customary in the types of transactions involved.

The selling stockholders and any broker-dealers or agents that are involved in selling the shares may be deemed to be underwriters within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each selling stockholder has informed us that it does not have any agreement or understanding, directly or indirectly, with any person to distribute the common stock.

We are required to pay all of our fees and expenses incident to the registration of the shares. We have agreed with the selling stockholders to indemnify each other against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

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WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and special reports, proxy statements and other information with the SEC. Our SEC filings are available over the Internet at the SEC s web site at http://www.sec.gov. You may also read and copy any document we file with the SEC at its public reference facility:

Public Reference Room
450 Fifth Street, N.W.
Room 1024
Washington, D.C. 20549

You may also obtain copies of the documents at prescribed rates by writing to the Public Reference Section of the SEC, 450 Fifth Street, N.W., Room 1024, Washington, DC 20549. Please call 1-800-SEC-0330 for further information on the operations of the public reference facility and copying charges.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus, and the information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference in this prospectus the following documents filed by us with the SEC:

Our Annual Report on Form 10-K for the year ended December 31, 2003, including any amendment filed for the purpose of updating such Annual Report;

Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2004, including any amendment filed for the purpose of updating such Quarterly Report;

A Proxy Statement for Annual Meeting of Stockholders on Schedule 14A filed with the SEC on April 28, 2004;

The description of our common stock contained in our registration statements on Form 8-A (File No. 1-19871) filed under the Exchange Act, including any amendment or report filed for the purpose of updating such description; and

Our Current Reports on Form 8-K filed with the SEC on April 14, 2004, May 4, 2004 and June 17, 2004.

Any statement made in a document incorporated by reference or deemed incorporated herein by reference is deemed to be modified or superseded for purposes of this prospectus if a statement contained in this prospectus or in any other subsequently filed document which is also incorporated or deemed incorporated by reference herein modifies or supersedes that statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus. We also incorporate by reference all documents filed pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus and prior to the termination of this offering.

Statements made in this prospectus or in any document incorporated by reference in this prospectus as to the contents of any contract or other document referred to herein or therein are not necessarily complete, and in each instance reference is made to the copy of such contract or other document filed as an exhibit to the documents incorporated by reference, each such statement being qualified in all material respects by such reference.

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address:

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

Copies of these filings are also available, without charge, on our Internet website at www.stemcellsinc.com as soon as reasonably practicable after they are filed electronically with the SEC.

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LEGAL OPINION

For the purpose of this offering, Ropes & Gray LLP, Boston, Massachusetts, is giving its opinion on the validity of the shares.

EXPERTS

The financial statements incorporated in this prospectus by reference from the Company s Annual Report on Form 10-K for the year ended December 31, 2003 have been audited by Grant Thornton LLP, Independent Registered Public Accountants in the case of financial statements for 2003, and at December 31, 2002, and for each of the two years in the period ended December 31, 2002, by Ernst & Young LLP, independent registered public accounting firm, each as stated in their respective reports, each of which is incorporated herein by reference and has been so incorporated in reliance upon such reports given upon their authority as experts in accounting and auditing.

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PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. OTHER EXPENSES OF DISTRIBUTION

SEC registration fee	$ 3,172.59
Blue sky fees and expenses*	$ 1,500
Legal fees and expenses*	$ 35,000
Printing expenses*	$ 10,000
Accounting fees and expenses*	$ 20,000
Miscellaneous*	$ 10,000
Total expenses*	$ 79,672.59

* Estimated

ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Section 145 of the Delaware General Corporation Law (DGCL) 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 or investigative (other than an action by or in the right of the corporation) by reason of the fact that he is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorney s fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit or proceeding if he acted in good faith and in a manner he 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 his conduct was unlawful. Section 145 further provides that a corporation similarly may indemnify any such person serving in any such capacity who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor, against expenses actually and reasonably incurred in connection with the defense or settlement of such action or suit if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Delaware Court of Chancery or such other court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Section 102(b)(7) of the DGCL permits a corporation to include in its certificate of incorporation a provision eliminating or limiting 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 provision 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 DGCL (relating to unlawful payment of dividends and unlawful stock purchase and redemption) or (iv) for any transaction from which the director derived an improper personal benefit.

The Registrant s Certificate provides that the Company s Directors shall not be liable to the Registrant or its stockholders for monetary damages for breach of fiduciary duty as a director except to the extent that exculpation from liabilities is not permitted under the DGCL as in effect at the time such liability is determined. The Registrant s Certificate further provides that the Registrant shall indemnify its directors and officers to the fullest extent permitted by the DGCL.

The Company has a liability insurance policy in effect which covers certain claims against any officer or director of the Company by reason of certain breaches of duty, neglect, errors or omissions committed by such person in his or her capacity as an officer or director.

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ITEM 16. EXHIBITS

4.1	Specimen Common Stock Certificate (1)
5.1	Opinion of Ropes & Gray LLP (1)
10.1	Form of Securities Purchase Agreement, dated as of June 16, 2004, by and among StemCells, Inc. and the purchasers listed on Exhibit A thereto (2)
10.2	Form of Warrant (2)
23.1	Consent of Ernst & Young LLP, independent registered public accounting firm (1)
23.2	Consent of Grant Thornton LLP, Independent Registered Public Accountants (1)
23.3	Consent of Ropes & Gray LLP (To be included in the opinion filed as Exhibit 5.1)
24.1	Power of Attorney (Included on the signature page hereto)

(1) Filed herewith.

(2) Incorporated by reference to our Current Report on Form 8-K filed with the SEC on June 17, 2004.

ITEM 17. **UNDERTAKINGS**

a. Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the provisions set forth in Item 15 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 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 Act and will be governed by the final adjudication of such issue.

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

c. 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:

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

b. 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 the volume of

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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;

c. 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;

PROVIDED, HOWEVER, that paragraphs (c)(1)(a) and (c)(1)(b) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed by the registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment 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.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement on Form S-3 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Palo Alto, State of California, on the 14th day of July, 2004.

STEMCELLS, INC.

By: /s/ Martin M. McGlynn
Name: Martin M. McGlynn
Title: President and Chief Executive Officer

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POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Martin M. McGlynn and George Koshy, and each of them singly, his or her true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement on Form S-8 to be filed by StemCells, Inc., and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their substitutes, may lawfully do or cause to be done by virtue hereof.

* * * *

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated:

Signature	Title	Date
/s/ Martin M. McGlynn MARTIN M. MCGLYNN	President, Chief Executive Officer and Director	July 14, 2004
/s/ George Koshy GEORGE KOSHY	Controller and Acting Chief Financial Officer	July 14, 2004
/s/ John J. Schwartz JOHN J. SCHWARTZ, PH.D	Chairman	July 14, 2004
/s/ Eric H. Bjerkholt ERIC H. BJERKHOLT, M.B.A.	Director	July 14, 2004
/s/ Ricardo B. Levy RICARDO B. LEVY, PH.D.	Director	July 14, 2004
/s/ Roger M. Perlmutter ROGER M. PERLMUTTER, M.D., PH.D.	Director	July 14, 2004
/s/ Irving L. Weissman IRVING L. WEISSMAN, M.D.	Director	July 14, 2004

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