



UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

**StemCells, Inc.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction  
of incorporation or organization)

**94-3078125**  
(I.R.S. Employer  
Identification No.)

**3155 Porter Drive  
Palo Alto, CA 94304  
(650) 475-3100**

(Address of principal executive offices, including zip code)

**StemCells, Inc. Amended and Restated  
2004 Equity Incentive Plan**  
(Full title of the plan)

**Iris Brest, Esq.  
General Counsel  
StemCells, Inc.  
3155 Porter Drive  
Palo Alto, CA 94304  
(650) 475-3100**

(Name, address and telephone number, including area code, of agent for service)

Please send copies of all communications to:

**Geoffrey B. Davis, Esq.  
Ropes & Gray LLP  
One International Place  
Boston, MA 02110  
617-951-7000  
617-951-7050 (facsimile)**

**CALCULATION OF REGISTRATION FEE**

Title of Each Class of Securities to be Registered	Amount to be Registered	Proposed Maximum Offering Price Per Share(1)	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration Fee
Common Stock, \$0.01 par value per share	3,000,000 shares <sup>(2)</sup>	\$1.47	\$4,410,000	\$558.75

(1) Of the 3,000,000 shares to be registered hereunder, no shares are subject to outstanding options. Therefore, the registration fee has been based upon the offering price of the 3,000,000 shares not subject to options on the date hereof of \$1.47 per share which has been estimated solely for the purpose of

determining the registration fee pursuant to Rule 457(c) and 457(h)(1) on the basis of the average high and low prices of the common stock, par value \$0.01 per share, as reported on the Nasdaq SmallCap Market on August 12, 2004.

- (2) Pursuant to Rule 416(a) under the Securities Act of 1933, this registration statement also covers such additional shares of Common Stock as may issued to prevent dilution from stock splits, stock dividends and similar transactions.
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**PART I**

**INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS**

Note: The document(s) containing the information required by Item 1 of this Form S-8 and the statement of availability of information of StemCells, Inc. (the "Registrant"), and other information required by Item 2 of this Form will be sent or given to employees as specified by Rule 428 under the Securities Act of 1933, as amended (the "Securities Act"). In accordance with Rule 428 and the requirements of Part I of Form S-8, such documents are not being filed with the Securities and Exchange Commission (the "Commission") either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424. The Registrant shall maintain a file of such documents in accordance with the provisions of Rule 428. Upon request, the Registrant shall furnish to the Commission or its staff a copy or copies of any or all of the documents included in such file.

**PART II**

**INFORMATION REQUIRED IN THE REGISTRATION STATEMENT**

**Item 3. Incorporation of Documents by Reference.**

The Registrant hereby incorporates the following documents herein by reference:

- (a) The Registrant's latest Annual Report on Form 10-K for the fiscal year ended December 31, 2003, filed with the Commission pursuant to the Securities Exchange Act of 1934, as amended (the "Exchange Act"), on April 6, 2004.
- (b) Quarterly Report on Form 10-Q for the quarter ended March 31, 2004, as filed with the Commission pursuant to the Exchange Act on May 3, 2004; Quarterly Report on Form 10-Q for the quarter ended June 30, 2004, as filed with the Commission pursuant to the Exchange Act on July 30, 2004. Current Report on Form 8-K, as filed with the Commission pursuant to the Exchange Act on April 12, 2004; Current Report on Form 8-K, as filed with the Commission pursuant to the Exchange Act on May 4, 2004; Current Report on Form 8-K, as filed with the Commission pursuant to the Exchange Act on July 30, 2004.
- (c) The description of the common stock of the Registrant contained in the Registrant's Registration Statement on Form 8-A (File No. 1-19871), including all amendments and reports filed for the purposes of updating such description.

All documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment to this Registration Statement that indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated herein by reference from the date of filing of such documents.

**Item 4. Description of Securities.**

Not applicable.

**Item 5. Interests of Named Experts and Counsel.**

Not applicable.

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**Item 6. Indemnification of Directors and Officers.**

The Registrant is incorporated under the laws of the State of Delaware. Section 145 (“Section 145”) of the General Corporation Law of the State of Delaware, as the same exists or may hereafter be amended (the “General Corporation Law”), inter alia, provides that a Delaware corporation may indemnify any persons who were, are or are threatened to be made, parties 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 such corporation), by reason of the fact that such person is or was an officer, director, employee or agent of such corporation, or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys’ fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the corporation’s best interests and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his conduct was illegal. In addition, the statutes of Delaware contain provisions to the general effect that any director shall in the performance of his duties be fully protected in relying in good faith upon the books of account or records of the corporation or statements prepared by any official of the corporation.

Section 145 further authorizes a corporation to purchase and maintain insurance on behalf of any person who 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 or enterprise, against any liability asserted against him and incurred by him in any such capacity, arising out of his status as such, whether or not the corporation would otherwise have the power to indemnify him under Section 145.

The Registrant’s amended and restated certificate of incorporation provides that the registrant shall indemnify its directors and officers to the full extent permitted by the laws of the State of Delaware. The Registrant’s restated certificate of incorporation provides that the registrant’s directors and officers 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 the exculpation from liabilities is not permitted under the General Corporation Law as in effect at the time such liability is determined. The Registrant’s By-laws provide that the Registrant shall indemnify its directors and officers to the extent permitted by the General Corporation Law of the State of Delaware.

All of the Registrant’s directors and officers are covered by insurance policies maintained by the Registrant against specified liabilities for actions taken in their capacities as such, including liabilities under the Securities Act of 1933, as amended.

**Item 7. Exemption From Registration Claimed.**

Not applicable.

**Item 8. Exhibits.**

Exhibit

- 4.1 Amended and Restated 2004 Equity Incentive Plan.
- 5.1 Opinion of Ropes & Gray LLP.

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### Exhibit

- 23.1 Consent of Grant Thornton LLP, Independent Registered Public Accounting Firm.
- 23.2 Consent of Ernst & Young LLP, independent registered public accounting firm.
- 23.3 Consent of Ropes & Gray LLP (included in the opinion filed as Exhibit 5.1).
- 24.1 Power of Attorney (included on the signature page of this Registration Statement under the caption "Power of Attorney").

### **Item 9. Undertakings.**

(a) 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, as amended (the "Securities Act");
- (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 a 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;

*provided, however*, that paragraphs (a)(1)(i) and (a)(1)(ii) above shall not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act, 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.

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- (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.
- (b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) 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) 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 foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the 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.



**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-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Palo Alto, California, on this 11th day of August, 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:

<b>Signature</b>	<b>Title</b>	<b>Date</b>
<u>/s/ Martin M. McGlynn</u> MARTIN M. MCGLYNN	President, Chief Executive Officer and Director	August 11, 2004
<u>/s/ George Koshy</u> GEORGE KOSHY	Controller and Acting Chief Financial Officer	August 13, 2004
<u>/s/ John J. Schwartz</u> JOHN J. SCHWARTZ, PH.D	Chairman	August 6, 2004
<u>/s/ Eric H. Bjerkholt</u> ERIC H. BJERKHOLT	Director	August 6, 2004
<u>/s/ Ricardo B. Levy</u> RICARDO B. LEVY, PH.D	Director	August 6, 2004
<u>/s/ Roger M. Perlmutter</u> ROGER M. PERLMUTTER M.D., PH.D	Director	August 11, 2004
<u>/s/ Irving L. Weissman</u> IRVING L. WEISSMAN, M.D.	Director	August 10, 2004

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- 24.1 Power of Attorney (included on the signature page of this Registration Statement under the caption “Power of Attorney”).

## STEMCELLS, INC.

AMENDED AND RESTATED  
2004 EQUITY INCENTIVE PLAN

## 1. PURPOSE

The purpose of this Equity Incentive Plan (the "Plan") is to advance the interests of StemCells, Inc. (the "Company") by enhancing its ability to attract and retain employees and other persons or entities who are in a position to make significant contributions to the success of the Company and its subsidiaries through ownership of shares of the Company's common stock ("Stock").

The Plan is intended to accomplish these goals by enabling the Company to grant Awards in the form of Options, Stock Appreciation Rights, Restricted Stock or Unrestricted Stock Awards, Deferred Stock Awards, Performance Awards, Loans or Supplement Grants, or combinations thereof, all as more fully described below.

## 2. ADMINISTRATION

The Plan will be administered by the Board of Directors of the Company (the "Board"). The Board will have authority, not inconsistent with the express provisions of the Plan and in addition to other authority granted under the Plan, to (a) grant Awards at such time or times as it may choose; (b) determine the size of each Award, including the number of shares of Stock subject to the Award; (c) determine the type or types of each Award; (d) determine the terms and conditions of each Award; (e) waive compliance by a Participant (as defined below) with any obligations to be performed by the Participant under an Award and waive any term or condition of an Award; (f) amend or cancel an existing Award in whole or in part (and if an award is cancelled, grant another Award in its place on such terms as the Board shall specify), except that the Board may not, without the consent of the holder of an Award, take any action under this clause with respect to such Award if such action would adversely affect the rights of such holder; (g) prescribe the form or forms of instruments that are required or deemed appropriate under the Plan, including any written notices and elections required of Participants, and change such forms from time to time; (h) adopt, amend and rescind rules and regulations for the administration of the Plan; and (i) interpret the Plan and decide any questions and settle all controversies and disputes that may arise in connection with the Plan. Such determinations and actions of the Board, and all other determinations and actions of the Board made or taken under authority granted by any provision of the Plan, will be conclusive and will bind all parties. Nothing in this paragraph shall be construed as limiting the power of the Board to make adjustments under Section 7.3 or Section 8.6.

The Board may, in its discretion, delegate some or all of its powers with respect to the Plan to a committee (the "Committee"), in which event all references (as appropriate) to the Board hereunder shall be deemed to refer to the Committee. The Committee, if one is appointed, shall consist of at least two directors. A majority of the members of the Committee shall

constitute a quorum, and all determinations of the Committee shall be made by a majority of its members. Any determination of the Committee under the Plan may be made without notice or meeting of the Committee by a writing signed by a majority of the Committee members. On and after registration of the Stock under the Securities Exchange Act of 1934 (the "1934 Act"), the Board shall delegate the power to select directors and officers to receive Awards under the Plan and the timing, pricing and amount of such Awards to a committee, all members of which shall be non-employee directors within the meaning of Rule 16b-3 under the 1934 Act and "outside directors" within the meaning of section 162(m)(4)(C)(i) of the Internal Revenue Code of 1986, as amended (the "Code"). In addition, the Board may, in its discretion, delegate to a Committee consisting solely of the chief executive officer of the Company, if he or she is member of the Board of Directors, the power to grant Awards under the Plan to persons who are not, and who are not expected to be, executive officers or directors of the Company.

### 3. EFFECTIVE DATE AND TERM OF PLAN

The Plan will become effective on the date on which it is approved by the stockholders of the Company.

No Award may be granted under the Plan after March 11, 2014, but Awards previously granted may extend beyond that date.

### 4. SHARES SUBJECT TO THE PLAN

Subject to the adjustment as provided in Section 8.6 below, the aggregate number of shares of Stock that may be delivered under the Plan will be 3,000,000. If any Award requiring exercise by the Participant for delivery of Stock terminates without having been exercised in full, or if any Award payable in Stock or cash is satisfied in cash rather than Stock, the number of shares of Stock as to which such Award was not exercised or for which cash was substituted will be available for future grants.

Stock delivered under the Plan may be either authorized but unissued Stock or previously issued Stock acquired by the Company and held in treasury. No fractional shares of Stock will be delivered under the Plan.

Subject to Section 8.6(a), the maximum number of shares of Stock as to which Options may be granted to any Participant during the life of the Plan is 500,000 and the maximum number of shares of Stock as to which Stock Appreciation Rights may be granted to any Participant during the life of the Plan is 500,000. For purposes of this paragraph, except as otherwise provided in regulations or other guidance issued under Section 162(m) of the Code, any repricing of an Option or Stock Appreciation Right shall be treated as an additional grant. The per-individual limitations described in this paragraph shall be construed and applied consistent with the rules and regulations under Section 162(m) of the Code.

Subject to the adjustment as provided in Section 8.6 below, Awards of Stock, including Restricted, Unrestricted and Deferred Stock Awards, and Stock that may be part of any

Performance Awards (other than Stock issued upon exercise of any Performance Option), shall not exceed 1,000,000 shares of Stock during the life of the Plan.

## 5. ELIGIBILITY AND PARTICIPATION

Those eligible to receive Awards under the Plan ("Participants") will be employees of the Company or any of its subsidiaries ("Employees") and other persons or entities (including without limitation non-Employee directors of the Company or a subsidiary of the Company) who, in the opinion of the Board, are in a position to make a significant contribution to the success of the Company or its subsidiaries. A "subsidiary" for purposes of the Plan will be a corporation in which the Company owns, directly or indirectly, stock possessing 50% or more of the total combined voting power of all classes of stock.

## 6. TYPES OF AWARDS

### 6.1. Options

- (a) Nature of Options. An Option is an Award entitling the recipient on exercise thereof to purchase Stock at a specified exercise price.

Both "incentive stock options," as defined in section 422 of the Code (any Option intended to qualify as an incentive stock option being hereinafter referred to as an "ISO"), and Options that are not incentive stock options [non-ISOs], may be granted under the Plan. ISOs shall be awarded only to Employees.

- (b) Exercise Price. The exercise price of an Option will be determined by the Board subject to the following:
- (1) The exercise price of an ISO shall not be less than 100% (110% in the case of an ISO granted to a ten-percent shareholder) of the fair market value of the Stock subject to the Option, determined as of the time the Option is granted. A "ten-percent shareholder" is any person who at the time of grant owns, directly or indirectly, or is deemed to own by reason of the attribution rules of section 424(d) of the Code, stock possessing more than 10% of the total combined voting power of all classes of stock of the Company or of any of its subsidiaries.
  - (2) In no case may the exercise price paid for Stock which is part of an original issue of authorized Stock be less than the par value per share of the Stock.
  - (3) Except pursuant to Section 8.6 hereof, the exercise price of an Option at any time after the time of grant may not be reduced except with the approval of the shareholders of the Company and, in the case of an Option originally awarded as an ISO, only with the consent of the Participant, provided, however, that in no case shall the exercise price of an Option be reduced below 85% of the fair market value of the Stock subject to the Option as of the

time the Option is granted (110% in the case of an Option granted to a ten-percent shareholder).

- (4) The exercise price of an Option granted to an Employee or a director of the Company shall not be less than 100% of the fair market value of the Stock subject to the Option, determined as of the time the Option is granted.
- (c) Duration of Options. The latest date on which an Option may be exercised will be the tenth anniversary (fifth anniversary, in the case of an ISO granted to a ten-percent shareholder) of the day immediately preceding the date the Option was granted, or such earlier date as may have been specified by the Board at the time the Option was granted.
- (d) Exercise of Options. An Option will become exercisable at such time or times, and on such conditions, as the Board may specify, provided, however, that in all cases the Option shall become exercisable at a rate of at least 20% per year over five years from the date the Option was granted, subject to reasonable conditions as the Board may from time to time specify. However, in the case of an Option granted to officers, directors, managers or consultants of the Company or any of its affiliates, the Option may become fully exercisable, subject to reasonable conditions such as the Board may from time to time specify, at any time or during any period established by the Board. The Board may at any time accelerate the time at which all or any part of the Option may be exercised.

Any exercise of an Option must be in writing, signed by the proper person and delivered or mailed to the Company, accompanied by (1) any documents required by the Board and (2) payment in full in accordance with paragraph (e) below for the number of shares for which the Option is exercised.

- (e) Payment for Stock. Stock purchased on exercise of an Option must be paid for as follows: (1) in cash or by check (acceptable to the Company in accordance with guidelines established for this purpose), bank draft or money order payable to the order of the Company or (2) if so permitted by the instrument evidencing the Option (or in the case of an Option which is not an ISO, by the Board at or after grant of the Option), (i) through the delivery of shares of Stock which have been outstanding for at least six months (unless the Board expressly approves a shorter period) and which have a fair market value on the last business day preceding the date of exercise equal to the exercise price, or (ii) by delivery of a promissory note of the Option holder to the Company, payable on such terms as are specified by the Board, or (iii) by delivery of an unconditional and irrevocable undertaking by a broker to deliver promptly to the Company sufficient funds to pay the exercise price, or (iv) by the withholding of shares of Stock otherwise deliverable upon exercise which have a fair market value on the date of exercise at least equal to the exercise price, or (v) by any combination of the permissible forms of payment; provided, that if the Stock delivered upon exercise of the Option is an original issue of authorized Stock, at least so much of the exercise price as represents the par value of such Stock must be paid other than by the

Option holder's personal check or promissory note. The foregoing notwithstanding, any stock purchased on exercise of an Option must be paid for in a manner consistent with law, and in particular stock purchased on exercise of an Option by a Director or an Executive Officer of the Company must be paid for in a manner consistent with the Sarbanes-Oxley Act of 2002 and regulations pursuant thereto.

- (f) Discretionary Payments. If the market price of shares of Stock subject to an Option (other than an Option which is in tandem with a Stock Appreciation Right as described in Section 6.2 below) exceeds the exercise price of the Option at the time of its exercise, the Board may cancel the Option and cause the Company to pay in cash or in shares of Common Stock (at a price per share equal to the fair market value per share) to the person exercising the Option an amount equal to the difference between the fair market value of the Stock which would have been purchased pursuant to the exercise (determined on the date the Option is cancelled) and the aggregate exercise price which would have been paid. The Board may exercise its discretion to take such action only if it has received a written request from the person exercising the Option, but such a request will not be binding on the Board.

## 6.2. Stock Appreciation Rights

- (a) Nature of Stock Appreciation Rights. A Stock Appreciation Right is an Award entitling the recipient on exercise of the Right to receive an amount, in cash or Stock or a combination thereof (such form to be determined by the Board), determined by reference to appreciation in Stock value.
- (b) Grant of Stock Appreciation Rights. Stock Appreciation Rights may be granted in tandem with, or independently of, Options granted under the Plan. A Stock Appreciation Right granted in tandem with an Option which is not an ISO may be granted either at or after the time the Option is granted. A Stock Appreciation Right granted in tandem with an ISO may be granted only at the time the Option is granted.
- (c) Rules Applicable to Tandem Awards. When Stock Appreciation Rights are granted in tandem with Options, the following will apply:
  - (1) The Stock Appreciation Right will be exercisable only at such time or times, and to the extent, that the related Option is exercisable and will be exercisable in accordance with the procedure required for exercise of the related Option.
  - (2) The Stock Appreciation Right will terminate and no longer be exercisable upon the termination or exercise of the related Option, except that a Stock Appreciation Right granted with respect to less than the full number of shares covered by an Option will not be reduced until the number of shares as to which the related Option has been exercised or has terminated exceeds the number of shares not covered by the Stock Appreciation Right.



- (3) The Option will terminate and no longer be exercisable upon the exercise of the related Stock Appreciation Right.
  - (4) The Stock Appreciation Right will be transferable only with the related Option.
  - (5) A Stock Appreciation Right granted in tandem with an ISO may be exercised only when the market price of the Stock subject to the Option exceeds the exercise price of such option.
- (d) Exercise of Independent Stock Appreciation Rights. A Stock Appreciation Right not granted in tandem with an Option will become exercisable at such time or times, and on such conditions, as the Board may specify. The Board may at any time accelerate the time at which all or any part of the Right may be exercised.

Any exercise of an independent Stock Appreciation Right must be in writing, signed by the proper person and delivered or mailed to the Company, accompanied by any other documents required by the Board.

### 6.3. Restricted and Unrestricted Stock

- (a) Nature of Restricted Stock Award. A Restricted Stock Award entitles the recipient to acquire shares of Stock subject to the restrictions described in paragraph (d) below ("Restricted Stock"). The purchase price (or value attributed thereto, in the case of Restricted Stock granted in lieu of compensation) of the Restricted Stock Award shall be at least 85% (100% in the case of a Restricted Stock Award granted to a ten-percent shareholder) of the fair value of the Stock at the time the recipient is granted the right to purchase the Stock or at the time the purchase is consummated, or, in the case of Restricted Stock granted in lieu of compensation, at the time of grant.
- (b) Acceptance of Award. A Participant who is granted a Restricted Stock Award will have no rights with respect to such Award unless the Participant accepts the Award by written instrument delivered or mailed to the Company accompanied by payment in full of the specified purchase price, if any, of the shares covered by the Award. Payment may be by certified or bank check or other instrument acceptable to the Board.
- (c) Rights as a Stockholder. A Participant who receives Restricted Stock will have all the rights of a stockholder with respect to the Stock, including voting and dividend rights, subject to the restrictions described in paragraph (d) below and any other conditions imposed by the Board at the time of grant. Unless the Board otherwise determines, certificates evidencing shares of Restricted Stock will remain in the possession of the Company until such shares are free of all restrictions under the Plan.
- (d) Restrictions. Except as otherwise specifically provided by the Plan, Restricted Stock may not be sold, assigned, transferred, pledged or otherwise encumbered or disposed of, and if the Participant ceases to be an Employee or otherwise suffers a Status

Change (as defined at Section 7.2(a) below) for any reason, must be offered to the Company for purchase at the fair market value on the date of the Status Change, provided further that the Company's right of repurchase must be exercised for cash or cancellation of purchase money indebtedness within 90 days of the Status Change.

- (e) Notice of Election. Any Participant making an election under Section 83(b) of the Code with respect to Restricted Stock must provide a copy thereof to the Company within 10 days of the filing of such election with the Internal Revenue Service.
- (f) Other Awards Settled with Restricted Stock. The Board may, at the time any Award described in this Section 6 is granted, provide that any or all the Stock delivered pursuant to the Award will be Restricted Stock.
- (g) Unrestricted Stock. The Board may, in its sole discretion, sell or grant in lieu of compensation to any Participant shares of Stock free of restrictions under the Plan for a price (or attributed value in the case of a grant in lieu of compensation) which is at least 85% (100% in the case of a Restricted Stock Award sold to a ten-percent shareholder) of the fair value of the Stock at the time the recipient is granted the right to purchase the Stock or at the time the purchase is consummated, or, in the case of Restricted Stock granted in lieu of compensation, at the time of grant.

#### 6.4. Deferred Stock

A Deferred Stock Award entitles the recipient to receive shares of Stock to be delivered in the future. Delivery of the Stock will take place at such time or times, and on such conditions, as the Board may specify. The Board may at any time accelerate the time at which delivery of all or any part of the Stock will take place. At the time any Award described in this Section 6 is granted, the Board may provide that, at the time Stock would otherwise be delivered pursuant to the Award, the Participant will instead receive an instrument evidencing the Participant's right to future delivery of Deferred Stock.

#### 6.5. Performance Awards; Performance Goals

- (a) Nature of Performance Awards. A Performance Award entitles the recipient to receive, without payment, an amount in cash or Stock or a combination thereof (such form to be determined by the Board) following the attainment of Performance Goals. Performance Goals may be related to personal performance, corporate performance, departmental performance or any other category of performance deemed by the Board to be important to the success of the Company. The Board will determine the Performance Goals, the period or periods during which performance is to be measured and all other terms and conditions applicable to the Award.
- (b) Other Awards Subject to Performance Condition. The Board may, at the time any Award described in this Section 6 is granted, impose the condition (in addition to any conditions specified or authorized in this Section 6 or any other provision of the Plan)

that Performance Goals be met prior to the Participant's realization of any payment or benefit under the Award.

#### 6.6. Loans and Supplemental Grants

- (a) Loans. The Company may make a loan to a Participant ("Loan"), either on the date of or after the grant of any Award to the Participant. A Loan may be made either in connection with the purchase of Stock under the Award or with the payment of any Federal, state and local income tax with respect to income recognized as a result of the Award. The Board will have full authority to decide whether to make a Loan and to determine the amount, terms and conditions of the Loan, including the interest rate (which may be zero), whether the Loan is to be secured or unsecured or with or without recourse against the borrower, the terms on which the Loan is to be repaid and the conditions, if any, under which it may be forgiven. However, no Loan may have a term (including extensions) exceeding ten years in duration. The foregoing notwithstanding, no Loan may be made to a Director or an Executive Officer of the Company, nor may any Loan be made except in manner consistent with law.
- (b) Supplemental Grants. In connection with any Award, the Board may at the time such Award is made or at a later date, provide for and grant a cash award to the Participant ("Supplemental Grant") not to exceed an amount equal to (1) the amount of any federal, state and local income tax on ordinary income for which the Participant may be liable with respect to the Award, determined by assuming taxation at the highest marginal rate, plus (2) an additional amount on a grossed-up basis intended to make the Participant whole on an after-tax basis after discharging all the Participant's income tax liabilities arising from all payments under this Section 6. Any payments under this subsection (b) will be made at the time the Participant incurs Federal income tax liability with respect to the Award.

#### 7. EVENTS AFFECTING OUTSTANDING AWARDS

##### 7.1. Death or Disability

If a Participant dies or becomes disabled, the following will apply:

- (a) All Options and Stock Appreciation Rights held by the Participant immediately prior to death, to the extent then exercisable, may be exercised by the Participant's executor or administrator or the person or persons to whom the Option or Right is transferred by will or the applicable laws of descent and distribution, at any time within the one-year period ending with the first anniversary of the Participant's death (or such shorter or longer period as the Board may determine, but in no event less than six (6) months), and shall thereupon terminate. In no event, however, shall an Option or Stock Appreciation Right remain exercisable beyond the latest date on which it could have been exercised without regard to this Section 7. Except as otherwise determined by the Board, all Options and Stock Appreciation Rights held by a Participant immediately prior to death that are not then exercisable shall terminate at death.

- (b) Except as otherwise determined by the Board, all Restricted Stock held by the Participant must be transferred to the Company (and, in the event the certificates representing such Restricted Stock are held by the Company, such Restricted Stock will be so transferred without any further action by the Participant) in accordance with Section 6.3 above.
- (c) Any payment or benefit under a Deferred Stock Award, Performance Award, or Supplemental Grant to which the Participant was not irrevocably entitled prior to death will be forfeited and the Award canceled as of the time of death, unless otherwise determined by the Board.

#### 7.2. Termination of Service (Other Than By Death)

If a Participant who is an Employee ceases to be an Employee for any reason other than death, or if there is a termination (other than by reason of death) of the consulting, service or similar relationship in respect of which a non-Employee Participant was granted an Award hereunder (such termination of the employment or other relationship being hereinafter referred to as a "Status Change"), the following will apply:

- (a) Except as otherwise determined by the Board, all Options and Stock Appreciation Rights held by the Participant that were not exercisable immediately prior to the Status Change shall terminate at the time of the Status Change. Any Options or Rights that were exercisable immediately prior to the Status Change will continue to be exercisable for a period of three months (or such longer period as the Board may determine), and shall thereupon terminate, unless the Status Change results from a discharge for cause which in the opinion of the Board casts such discredit on the Participant as to justify immediate termination of the Award. In no event, however, shall an Option or Stock Appreciation Right remain exercisable beyond the latest date on which it could have been exercised without regard to this Section 7. For purposes of this paragraph, in the case of a Participant who is an Employee, a Status Change shall not be deemed to have resulted by reason of (i) a sick leave or other bona fide leave of absence approved for purposes of the Plan by the Board, or (ii) a transfer of employment between the Company and a subsidiary or between subsidiary, or to the employment of a corporation (or a parent or subsidiary corporation of such corporation) issuing or assuming an option in a transaction to which section 424(a) of the Code applies.
- (b) Except as otherwise determined by the Board, all Restricted Stock held by the Participant at the time of the Status Change must be transferred to the Company (and, in the event the certificates representing such Restricted Stock are held by the Company, such Restricted Stock will be so transferred without any further action by the Participant) in accordance with Section 6.3 above.
- (c) Any payment or benefit under a Deferred Stock Award, Performance Award, or Supplemental Grant to which the Participant was not irrevocably entitled prior to the

Status Change will be forfeited and the Award cancelled as of the date of such Status Change unless otherwise determined by the Board.

### 7.3. Certain Corporate Transactions

Except as provided below in this Section 7.3, on the effective date of a Corporate Transaction (as defined below) (i) each outstanding Option and Stock Appreciation Right shall automatically become exercisable with respect to one hundred percent (100%) of any portion of such Option or Stock Appreciation Right which is not then exercisable, (ii) all restrictions with respect to one hundred percent (100%) of the shares of Common Stock then subject to the restrictions of Restricted Stock awards shall lapse, (iii) one hundred percent (100%) of all payments or other benefits under each outstanding Deferred Stock Award, Performance Award and Supplemental Grant which have not then been paid or provided shall be paid or provided, and (iv) one hundred percent (100%) of the unpaid principal balance and accrued interest on each outstanding Loan shall be forgiven.

Provisions (i) through (iv) above shall not apply to the extent an outstanding Award held by a participant who, following the covered transaction, will be employed by or otherwise providing services to a corporation which is a surviving or acquiring corporation in such transaction or an affiliate of such a corporation, is replaced by such surviving or acquiring corporation or affiliate with a replacement award which, in the judgment of the Board, is substantially equivalent to the Award and which replacement award provides that if the recipient of such replacement award suffers an Involuntary Termination (as defined below) within twenty-four (24) months after the effective date of the Corporate Transaction in which such replacement award was granted then (i) each replacement option and stock appreciation right will automatically become exercisable with respect to one hundred percent (100%) of any portion of such replacement option or stock appreciation right which is unexercisable at the time of the Involuntary Termination, (ii) all restrictions with respect to one hundred percent (100%) of the shares of stock subject to replacement restricted stock awards at the time of the Involuntary Termination shall lapse, (iii) one hundred percent (100%) of all payments or other benefits under each outstanding replacement deferred stock award, performance award and supplemental grant which have not been paid or provided as of the time of the Involuntary Termination shall be paid or provided, and (iv) one hundred percent (100%) of the unpaid principal balance and accrued interest at the time of the Involuntary Termination on each outstanding replacement loan shall be forgiven.

The term "Corporate Transaction" shall mean the occurrence of any of the following: (i) a merger or consolidation involving the Company which results in less than 50% of the combined voting power of the surviving or resulting entity's outstanding securities being held by the stockholders of the Company who were stockholders immediately prior to such transaction, or (ii) the sale, transfer or other disposition of more than 51% of the Company's assets in a single or related series of transactions or (iii) within any twenty-four (24) consecutive month period, persons who were members of the Board immediately prior to such twenty-four (24) month period, together with any persons who

were first elected as directors (other than as a result of any settlement of a proxy or consent solicitation contest or any action taken to avoid such a contest) during such twenty-four (24) month period by or upon the recommendation of persons who were members of the Board immediately prior to such twenty-four (24) month period and who constituted a majority of the Board at the time of such election, cease to constitute a majority of the Board.

The term "Involuntary Termination" shall mean (i) the termination of the services of any Participant which occurs by reason of such individual's involuntary dismissal or discharge for reasons other than as a result of (a) the commission of any act or fraud, embezzlement or dishonesty by the Participant, (b) material unauthorized use or disclosure by such individual of confidential information or trade secrets of the Company or its successor, or (c) any other intentional misconduct by such individual adversely affecting the business or affairs of the Company or its successor in a material manner, or (ii) a material diminution of the responsibilities of a Participant, (iii) a reduction of more than 10% in a Participant's level of compensation (including base salary, benefits or any non-discretionary and objective-standard incentive payment or bonus award) or (iv) a relocation of a Participant's principal place of employment by more than 50 miles, only if such change, reduction or relocation is effected by the Company or the successor thereto without the Participant's consent.

## 8. GENERAL PROVISIONS

### 8.1. Documentation of Awards

Awards will be evidenced by such written instruments, if any, as may be prescribed by the Board from time to time. Such instruments may be in the form of agreements to be executed by both the Participant and the Company, or certificates, letters or similar instruments, which need not be executed by the Participant but acceptance of which will evidence agreement to the terms thereof.

### 8.2. Rights as a Stockholder, Dividend Equivalent

Except as specifically provided by the Plan, the receipt of an Award will not give a Participant rights as a stockholder; the participant will obtain such rights, subject to any limitations imposed by the Plan or the instrument evidencing the Award, upon actual receipt of Stock. However, the Board may, on such conditions as it deems appropriate, provide that a Participant will receive a benefit in lieu of cash dividends that would have been payable on any or all Stock subject to the Participant's Award had such Stock been outstanding. Without limitation, the Board may provide for payment to the Participant of amounts representing such dividends, either currently or in the future, or for the investment of such amounts on behalf of the Participant. The Plan shall comply with Section 260.140.1 of the California Code of Regulations regarding the voting rights of the Stock and other equity securities.

### 8.3. Conditions on Delivery of Stock

The Company will not be obligated to deliver any shares of Stock pursuant to the Plan or to remove restriction from shares previously delivered under the Plan (a) until all conditions of the Award have been satisfied or removed, (b) until, in the opinion of the Company's counsel, all applicable federal and state laws and regulation have been complied with, (c) if the outstanding Stock is at the time listed on any stock exchange, until the shares to be delivered have been listed or authorized to be listed on such exchange upon official notice of notice of issuance, and (d) until all other legal matters in connection with the issuance and delivery of such shares have been approved by the Company's counsel. If the sale of Stock has not been registered under the Securities Act of 1933, as amended (the "1933 Act"), the Company may require, as a condition to exercise of the Award, such representations or agreements as counsel for the Company may consider appropriate to avoid violation of such Act and may require that the certificates evidencing such Stock bear an appropriate legend restricting transfer.

If an Award is exercised by the Participant's legal representative, the Company will be under no obligation to deliver Stock pursuant to such exercise until the Company is satisfied as to the authority of such representative.

### 8.4. Tax Withholding

The Company will withhold from any cash payment made pursuant to an Award an amount sufficient to satisfy all federal, state and local withholding tax requirements (the "withholding requirements").

In the case of an Award pursuant to which Stock may be delivered, the Board will have the right to require that the Participant or other appropriate person remit to the Company an amount sufficient to satisfy the withholding requirements, or make other arrangements satisfactory to the Board with regard to such requirements, prior to the delivery of any Stock. If and to the extent that such withholding is required, the Board may permit the Participant or such other person to elect at such time and in such manner as the Board provides to have the Company hold back from the shares to be delivered, or to deliver to the Company, Stock having a value calculated to satisfy the withholding requirement.

If at the time an ISO is exercised the Board determines that the Company could be liable for withholding requirements with respect to a disposition of the Stock received upon exercise, the Board may require as a condition of exercise that the person exercising the ISO agree (a) to inform the Company promptly of any disposition (within the meaning of section 424(c) of the Code) of Stock received upon exercise, and (b) to give such security as the Board deems adequate to meet the potential liability of the Company for the withholding requirements and to augment such security from time to time in any amount reasonably deemed necessary by the Board to preserve the adequacy of such security.

#### 8.5. Transferability of Awards

Except as provided below, no Award (other than an Award in the form of an outright transfer of cash) may be transferred other than by will or by the laws of descent and distribution, or as permitted by Rule 701 under the 1933 Act. During an employee's lifetime an Award requiring exercise may be exercised only by the Participant (or in the event of the Participant's incapacity, the person or persons legally appointed to act on the Participant's behalf). The Board may grant Options that are transferable, in accordance with Rule 701 under the 1933 Act, to family members by gift or domestic relations orders.

#### 8.6. Adjustments in the Event of Certain Transactions

- (a) In the event of a stock dividend, stock split, reverse stock split or combination of shares, recapitalization or other change in the Company's capitalization, or other distribution to common stockholders other than normal cash dividends, after the effective date of the Plan, the Board will make any appropriate adjustments to the maximum number of shares that may be delivered under the Plan under Section 4 above.
- (b) In any event referred to in paragraph (a), the Board will also make any appropriate adjustments to the number and kind of shares of stock or securities subject to Awards then outstanding or subsequently granted, any exercise prices relating to Awards and any other provision of Awards affected by such change. The Board may also make such adjustments to take into account material changes in law or in accounting practices or principles, mergers, consolidations, acquisitions, dispositions or similar corporate transactions, or any other event, if it is determined by the Board that adjustments are appropriate to avoid distortion in the operation of the Plan.

#### 8.7. Employment Rights, Etc.

Neither the adoption of the Plan nor the grant of Awards will confer upon any person any right to continue retention by the Company or any subsidiary as an Employee or otherwise, or affect in any way the right of the Company or subsidiary to terminate an employment, service or similar relationship at any time. Except as specifically provided by the Board in any particular case, the loss of existing or potential profit in Awards granted under the Plan will not constitute an element of damages in the event of termination of an employment, service or similar relationship even if the termination is in violation of an obligation of the Company to the Participant.

#### 8.8. Deferral of Payments

The Board may agree at any time, upon request of the Participant, to defer the date on which any payment under an Award will be made.



8.9. Past Services as Consideration

Where a Participant purchases Stock under an Award for a price equal to the par value of the Stock the Board may determine that such price has been satisfied by past services rendered by the Participant.

8.10. Participants' Receipt of Annual Financial Statements

The Company shall deliver annual financial statements of the Company to Participants holding Stock or other securities under the Plan.

9. EFFECT, DISCONTINUANCE, CANCELLATION, AMENDMENT AND TERMINATION

Neither adoption of the Plan nor the grant of Awards to a Participant will affect the Company's right to grant to such Participant awards that are not subject to the Plan, to issue to such Participant Stock as a bonus or otherwise, or to adopt other plans or arrangements under which Stock will be issued to Employees.

The Board may at any time or times amend the Plan or any outstanding Award for any purpose which may at the time be permitted by law, or may at any time terminate the Plan as to any further grants of Awards, provided that (except to the extent expressly required or permitted by the Plan) no such amendment will, without the approval of the stockholders of the Company, effectuate a change for which stockholder 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, or to continue to qualify under Rule 16b-3 promulgated under Section 16 of the 1934 Act, or otherwise under applicable law.

August 13, 2004

StemCells, Inc.

Ladies and Gentlemen:

This opinion is furnished to you in connection with a registration statement on Form S-8 (the "Registration Statement"), filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended, for the registration of 3,000,000 shares of Common Stock, \$.01 par value (the "Shares"), of StemCells, Inc., a Delaware corporation (the "Company"). The Shares are issuable under the Company's Amended and Restated 2004 Equity Incentive Plan (the "Plan").

We are familiar with the actions taken by the Company in connection with the adoption of the Plan. For purposes of our opinion, we have examined and relied upon such documents, records, certificates and other instruments as we have deemed necessary. The opinions expressed below are limited to the Delaware General Corporation Law, including the applicable provisions of the Delaware Constitution and the reported cases interpreting those laws.

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 in accordance with the terms of the Plan, the Shares will be validly issued, fully paid and nonassessable.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement. Our consent shall not be deemed an admission that we are experts whose consent is required under Section 7 of the Securities Act of 1933.

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

Very truly yours,

/s/ Ropes & Gray LLP

Ropes & Gray LLP

CONSENT OF GRANT THORNTON LLP,  
INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our reports dated February 22, 2004 accompanying the consolidated financial statements of StemCells, Inc. appearing in the 2003 Annual Report of the Company to its shareholders and accompanying the schedules included in the Annual Report on Form 10-K for the year ended December 31, 2003 which are incorporated by reference in this Registration Statement. We consent to the incorporation by reference in the Registration Statement of the aforementioned reports.

/s/ Grant Thornton LLP

San Francisco, California  
August 12, 2004

CONSENT OF ERNST & YOUNG LLP, INDEPENDENT REGISTERED  
PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the StemCells, Inc. Amended and Restated 2004 Equity Incentive Plan, of our report dated March 4, 2003, except for Note 1 -- Restatement of Consolidated Financial Statements, as to which the date is March 31, 2004, with respect to the 2001 and 2002 consolidated financial statements of StemCells, Inc included in its Annual Report (Form 10-K) for the year ended December 31, 2003, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

August 12, 2004