

SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM S-8 REGISTRATION STATEMENT  
UNDER THE SECURITIES ACT OF 1933

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

Delaware

94-3078125

(State or other jurisdiction of  
incorporation or organization)

(IRS Employer Identification No.)

Two Richmond Square  
Providence, Rhode Island 02906

(Address of principal executive offices, including zip code)

StemCells, Inc. 1996 Stock Option Plan

1997 CytoTherapeutics, Inc.  
StemCells Research Stock Option Plan

(Full title of the plan)

Frederic A. Eustis, III, Esq.  
Secretary  
CytoTherapeutics, Inc.  
Two Richmond Square  
Providence, Rhode Island 02906  
(410) 272-3310

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

CALCULATION OF REGISTRATION FEE

Title of Securities to be registered	Amount to be registered	Proposed maximum offering price per share(1)	Proposed maximum aggregate offering price (1)	Amount of registration fee
Common Stock, par value \$0.01	2,182,620 shares	\$4.8459	\$10,576,827	\$3206.00

(1) The maximum aggregate offering price for the shares of the Registrant's Common Stock, \$.01 par value offered hereby is based (i) on the weighted average exercise price of the 1,782,620 shares issuable upon the exercise of options previously granted and (ii) for the remaining shares is estimated solely for the purpose of determining the registration fee pursuant to Rule 457(h) on the basis of the average of the high and low prices of CytoTherapeutics, Inc. Common Stock, par value \$0.01, reported on NASDAQ/NMS on September 30, 1997.

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 Annual Report on Form 10-K for the fiscal year ended December 31, 1996 (which incorporates by reference certain information from the Registrant's Proxy Statement relating to the 1997 Annual

Meeting of Stockholders).

- (b) The Registrant's Quarterly Reports on Form 10-Q for the quarters ended March 31, 1997 and June 30, 1997.
- (c) The Registrant's Current Report on Form 8-K filed on August 18, 1997.
- (d) The Registrant's Current Report on Form 8-K filed on October 6, 1997.
- (e) 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 purpose 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 which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold shall be deemed to be incorporated by reference herein and to be a part hereof from the date of the filing of such documents.

ITEM 4. DESCRIPTION OF SECURITIES.

Not required.

ITEM 5. INTERESTS OF NAMED EXPERTS AND COUNSEL.

No material interests.

ITEM 6. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

Section 145 of the Delaware General Corporation Law, as amended, 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 attorneys' 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 Delaware General Corporation Law, as amended, 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) 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 Delaware General Corporation Law (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 Restated Certificate of Incorporation, as amended, 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 Delaware General Corporation Law as in effect at the time such liability is determined. The Restated Certificate of Incorporation, as amended, further provides that the Registrant shall indemnify its directors and officers to the full extent permitted by the law of the State of Delaware.

ITEM 7. EXEMPTION FROM REGISTRATION CLAIMED.

Not applicable.

ITEM 8. EXHIBITS.

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Exhibit

- 4.1 Specimen Stock Certificate (incorporated by reference to Exhibit 4 of the Registrant's Registration Statement on Form S-1, File No. 33-45739).
- 5.1 Opinion of Ropes & Gray.
- 23.1 Consent of Ernst & Young LLP.
- 23.2 Consent of Ropes & Gray (contained in the opinion filed as Exhibit 5.1 to this registration statement).
- 24.1 Powers of Attorney (included in Part II of this registration statement under the caption "Signatures").
- 99.1. StemCells, Inc. 1996 Stock Option Plan.
- 99.2 Registrant's 1997 StemCells Research Stock Option Plan the (the "1997 Plan").
- 99.3. Form of Performance -- Based Incentive Option Agreement Issued Under the 1997 Plan.

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;

(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;

(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 this 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 by the Registrant pursuant to Section 13 or Section 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.

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

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 on Form S-8 to be signed on its behalf by the undersigned thereunto duly authorized, in Providence, Rhode Island, on September 30, 1997.

By

/s/Seth A. Rudnick

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 Seth A. Rudnick  
 Chairman and Chief Executive Officer  
 and Director

Each person whose signature appears below constitutes and appoints Seth A. Rudnick, Frederic A. Eustis and John McBride, 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 CytoTherapeutics, 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, this registration statement on Form S-8 has been signed below by the following persons in the capacities shown.

Signature -----	Capacity -----	Date -----
/s/ Seth A. Rudnick ----- Seth A. Rudnick	Chairman, Chief Executive Officer and Director (principal executive officer)	September 30, 1997
/s/ John McBride ----- John McBride	Chief Financial Officer, Vice President and Treasurer (principal financial officer)	September 30, 1997
/s/ Suzanne Fleming ----- Suzanne Fleming	Controller (principal accounting officer)	September 30, 1997
/s/ Edwin C. Cadman ----- Edwin C. Cadman	Director	September 30, 1997

Signature -----	Capacity -----	Date -----
/s/ Donald R. Conklin ----- Donald R. Conklin	Director	September 30, 1997
/s/ Patrick Aebischer ----- Patrick Aebischer	Director	September 30, 1997
/s/ Mark J. Levin ----- Mark J. Levin	Director	September 30, 1997
/s/ Richard J. Ramsden ----- Richard J. Ramsden	Director	September 30, 1997
/s/ Peter K. Simon ----- Peter K. Simon	Director	September 30, 1997

October 6, 1997

CytoTherapeutics, Inc.  
2 Richmond Square  
Providence, RI 02906

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 (the "Commission") under the Securities Plan Act of 1933, as amended, for the registration of 2,000,000 shares of common stock ("Common Stock"), \$.01 par value (the "Plan Shares"), of CytoTherapeutics, Inc. (the "Company") issuable upon the exercise of options granted under Company's 1997 StemCells Research Stock Option Plan (the "1997 Plan") and 182,620 shares of Common Stock (the "Assumed Shares" and together with the Plan Shares, the "Shares") issuable upon the exercise of options assumed by the Company (the "Options") that had previously been granted under the StemCells, Inc. 1996 Stock Option Plan (the "StemCells Plan").

We have acted as counsel for the Company in connection with the 1997 Plan and the assumption of the Options and are familiar with the actions taken by the Company in connection therewith. For purposes of this opinion we have examined the Registration Statement, the 1997 Plan, the Options and such other documents as we deemed appropriate.

Based upon the foregoing, we are of the opinion that the Shares have been duly authorized, and the Shares, when issued and sold in accordance with the terms of the 1997 Plan and the Options, will be validly issued, fully paid and non-assessable.

We hereby consent to your filing this opinion as an exhibit to the Registration Statement and to all references to our firm included in or made a part of this Registration Statement.

Very truly yours,

/s/ Ropes & Gray

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Ropes & Gray

CONSENT OF INDEPENDENT AUDITORS

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the StemCells, Inc. 1996 Stock Plan and the 1997 CytoTherapeutics, Inc. StemCells Research Stock Option Plan of CytoTherapeutics, Inc. of our report dated February 6, 1997, except for Note 17, as to which the date is February 13, 1997, with respect to the consolidated financial statements of CytoTherapeutics, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 1996, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

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ERNST & YOUNG LLP

Boston, Massachusetts  
October 2, 1997



STEMCELLS, INC.  
1996 STOCK PLAN

1. Purposes of the Plan. The purposes of this Stock Plan are to attract and retain the best available personnel for positions of substantial responsibility, to provide additional incentive to Employees, Directors and Consultants and to promote the success of the Company's business. Options granted under the Plan may be Incentive Stock Options or Nonstatutory Stock Options, as determined by the Administrator at the time of grant. Stock Purchase Rights may also be granted under the Plan.

2. Definitions. As used herein, the following definitions shall apply:

- a. "Administrator" means the Board or any of its Committees as shall be administering the Plan in accordance with Section 4 hereof.
- b. "Applicable Laws" means the requirements relating to the administration of stock option plans under U.S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws of any foreign country or jurisdiction where Options or Stock Purchase Rights are granted under the Plan.
- c. "Board" means the Board of Directors of the Company.
- d. "Code" means the Internal Revenue Code of 1986, as amended.
- e. "Committee" means a committee of Directors appointed by the Board in accordance with Section 4 hereof.
- f. "Common Stock" means the Common Stock of the Company.
- g. "Company" means StemCells, Inc., a California corporation.
- h. "Consultant" means any person who is engaged by the Company or any Parent or Subsidiary to render consulting or advisory services to such entity.
- i. "Director" means a member of the Board of Directors of the Company.

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- j. "Employee" means any person, including Officers and Directors, employed by the Company or any Parent or Subsidiary of the Company. A Service Provider shall not cease to be an Employee in the case of (i) any leave of absence approved by the Company or (ii) transfers between locations of the Company or between the Company, its Parent, any Subsidiary, or any successor. For purposes of Incentive Stock Options, no such leave may exceed ninety days, unless reemployment upon expiration of such leave is guaranteed by statute or contract. If reemployment upon expiration of a leave of absence approved by the Company is not so guaranteed, on the 181st day of such leave any Incentive Stock Option held by the Optionee shall cease to be treated as an Incentive Stock Option and shall be treated for tax purposes as a Nonstatutory Stock Option. Neither service as a Director nor payment of a director's fee by the Company shall be sufficient to constitute "employment" by the Company.
- k. "Exchange Act" means the Securities Exchange Act of

- l. "Fair Market Value" means, as of any date, the value of Common Stock determined as follows:
  - i. If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the NASDAQ National Market or The NASDAQ SmallCap Market of The NASDAQ Stock Market, its Fair Market Value shall be the closing sales price for such stock (or the closing bid, if no sales were reported) as quoted on such exchange or system for the last market trading day prior to the time of determination, as reported in The Wall Street Journal or such other source as the Administrator deems reliable;
  - ii. If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, its Fair Market Value shall be the mean between the high bid and low asked prices for the Common Stock on the last market trading day prior to the day of determination; or
  - iii. In the absence of an established market for the Common Stock, the Fair Market Value thereof shall be determined in good faith by the Administrator.
- m. "Incentive Stock Option" means an Option intended to qualify as an incentive stock option within the meaning of Section 422 of the Code.

- n. "Nonstatutory Stock Option" means an Option not intended to qualify as an Incentive Stock Option.
- o. "Officer" means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act and the rules and regulations promulgated thereunder.
- p. "Option" means a stock option granted pursuant to the Plan.
- q. "Option Agreement" means a written or electronic agreement between the Company and an Optionee evidencing the terms and conditions of an individual Option grant. The Option Agreement is subject to the terms and conditions of the Plan.
- r. "Option Exchange Program" means a program whereby outstanding Options are exchanged for Options with a lower exercise price.
- s. "Optioned Stock" means the Common Stock subject to an Option or a Stock Purchase Right.
- t. "Optionee" means the holder of an outstanding Option or Stock Purchase Right granted under the Plan.
- u. "Parent" means a "parent corporation," whether now or hereafter existing, as defined in Section 424(e) of the Code.
- v. "Plan" means this 1996 Stock Plan.
- w. "Restricted Stock" means shares of Common Stock acquired pursuant to a grant of a Stock Purchase Right under Section 11 below.
- x. "Section 16(b)" means Section 16(b) of the Securities Exchange Act of 1934, as amended.
- y. "Service Provider" means an Employee, Director or consultant.
- z. "Share" means a share of the Common Stock, as adjusted in accordance with Section 12 below.
- aa. "Stock Purchase Right" means a right to purchase Common Stock pursuant to Section 11 below.

- bb. "Subsidiary" means a "subsidiary corporation,  
" whether now or hereafter existing, as defined in  
Section 424(f) of the Code.

3. Stock Subject to the Plan. Subject to the provisions of Section 12 of the Plan, the maximum aggregate number of Shares which may be subject to option and sold under the Plan is 120,000 Shares. The Shares may be authorized but unissued, or reacquired Common Stock.

If an Option or Stock Purchase Right expires or becomes unexercisable without having been exercised in full, or is surrendered pursuant to an Option Exchange Program, the unpurchased Shares which were subject thereto shall become available for future grant or sale under the Plan (unless the Plan has terminated). However, Shares that have actually been issued under the Plan, upon exercise of either an Option or Stock Purchase Right, shall not be returned to the Plan and shall not become available for future distribution under the Plan, except that if Shares of Restricted Stock are repurchased by the Company at their original purchase price, such Shares shall become available for future grant under the Plan.

4. Administration of the Plan.

- a. The Plan shall be administered by the Board or a Committee appointed by the Board, which Committee shall be constituted to comply with Applicable Laws.
- b. Powers of the Administrator. Subject to the provisions of the Plan and, in the case of a Committee, the specific duties delegated by the Board to such Committee, and subject to the approval of any relevant authorities, the Administrator shall have the authority in its discretion.
  - i. to determine the Fair Market Value;
  - ii. to select the Service Providers to whom Options and Stock Purchase Rights may from time to time be granted hereunder;
  - iii. to determine the number of Shares to be covered by each such award granted hereunder;
  - iv. to approve forms of agreement for use under the Plan;
  - v. to determine the terms and conditions, of any Option or Stock Purchase Right granted hereunder. Such terms and conditions include, but are not limited to, the exercise price, the time or times when Options or Stock Purchase Rights may be exercised (which may be based on performance

criteria), any vesting acceleration or waiver of forfeiture restrictions, and any restriction or limitation regarding any Option or Stock Purchase Right or the Common Stock relating thereto, based in each case on such factors as the Administrator, in its sole discretion, shall determine;

- vi. to determine whether and under what circumstances an Option may be settled in cash under subsection 9(f) instead of Common Stock;
  - vii. to reduce the exercise price of any Option to the then current Fair Market Value if the Fair Market Value of the Common Stock covered by such Option has declined since the date the Option was granted;
  - viii. to initiate an Option Exchange Program;
  - ix. to prescribe, amend and rescind rules and regulations relating to the Plan, including rules and regulations relating to sub-plans established for the purpose of qualifying for preferred tax treatment under foreign tax laws;
  - x. to allow Optionees to satisfy withholding tax obligations by electing to have the Company withhold from the Shares to be issued upon exercise of an Option or Stock Purchase Right that number of Shares having a Fair Market Value equal to the amount required to be withheld. The Fair Market Value of the Shares to be withheld shall be determined on the date that the amount of tax to be withheld is to be determined. All elections by Optionees to have Shares withheld for this purpose shall be made in such form and under such conditions as the Administrator may deem necessary advisable; and
  - xi. to construe and interpret the terms of the Plan and awards granted pursuant to the Plan.
- c. Effect of Administrator's Decision. All decisions, determinations and interpretations of the Administrator shall be final and binding on all Optionees.

5. Eligibility.

- a. Nonstatutory Stock Options and Stock Purchase Rights may be granted to Service Providers. Incentive Stock Options may be granted only to Employees.
- b. Each Option shall be designated in the Option Agreement as either an Incentive Stock Option or a Nonstatutory Stock Option. However, notwithstanding such designation, to the extent that the aggregate Fair Market Value of the Shares with respect to which Incentive Stock Options are exercisable for the first time by the Optionee during any calendar year (under all plans of the Company and any Parent or Subsidiary) exceeds \$100,000, such Options shall be treated as Nonstatutory Stock Options. For purposes of this Section 5(b), Incentive Stock Options shall be taken into account in the order in which they were granted. The Fair Market Value of the Shares shall be determined as of the time the Option with respect to such Shares is granted.
- c. Neither the Plan nor any Option or Stock Purchase Right shall confer upon any Optionee any right with respect to continuing the Optionee's relationship as a Service Provider with the Company, nor shall it interfere in any way with his or her right or the Company's right to terminate such relationship at any time, with or without cause.

6. Term of Plan. The Plan shall become effective upon its adoption by the Board. It shall continue in effect for a term of ten (10) years unless sooner terminated under Section 14 of the Plan.

7. Term of Option. The term of each Option shall be stated in the Option Agreement; provided, however, that the term shall be no more than ten (10) years from the date of grant thereof. In the case of an Incentive Stock Option granted to an Optionee who, at the time the Option is granted, owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the term of the Option shall be five (5) years from the date of grant or such shorter term as may be provided in the Option Agreement.

8. Option Exercise Price and Consideration.

- a. The per share exercise price for the Shares to be issued upon exercise of an Option shall be such price as is determined by the Administrator, but shall be subject to the following:

- i. In the case of an Incentive Stock Option

(A) granted to an Employee who, at the time of grant of such Option, owns stock representing more than ten percent (10%) of the voting power of all classes

of stock of the Company or any Parent or Subsidiary, the exercise price shall be no less than 110% of the Fair Market Value per Share on the date of grant.

(B) granted to any other Employee, the per Share exercise price shall be no less than 100% of the Fair Market Value per Share on the date of grant.

ii. In the case of a Nonstatutory Stock Option

(A) granted to a Service Provider who, at the time of grant of such Option, owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the exercise price shall be no less than 110% of the Fair Market Value per Share on the date of the grant.

(B) granted to any other Service Provider, the per Share exercise price shall be no less than 85% of the Fair Market Value per Share on the date of grant.

iii. Notwithstanding the foregoing, Options may be granted with a per Share exercise price other than as required above pursuant to a merger or other corporate transaction.

b. The consideration to be paid for the Shares to be issued upon exercise of an Option, including the method of payment, shall be determined by the Administrator (and, in the case of an Incentive Stock Option, shall be determined at the time of grant). Such consideration may consist of (1) cash, (2) check, (3) promissory note, (4) other Shares which (x) in the case of Shares acquired upon exercise of an Option, have been owned by the Optionee for more than six months on the date of surrender, and (y) have a Fair Market Value on the date of surrender equal to the aggregate exercise price of the Shares as to which such Option shall be exercised, (5) consideration received by the Company under a cashless exercise program implemented by the Company in connection with the Plan, or (6) any combination of the foregoing methods of payment. In making its determination as to the type of consideration to accept, the Administrator shall consider if acceptance of such consideration may be reasonably expected to benefit the Company.

#### 9. Exercise of Option.

a. Procedure for Exercise; Rights as a Shareholder. Any Option granted hereunder shall be exercisable according to the terms hereof at such times and under such conditions as determined by the Administrator and set forth in the Option Agreement, but in no case at a rate of less than 20% per year over five (5) years from the date the Option is granted. Unless the Administrator provides otherwise, vesting of Options granted hereunder

shall be tolled during any unpaid leave of absence. An Option may not be exercised for a fraction of a Share.

An Option shall be deemed exercised when the Company receives:

(i) written or electronic notice of exercise (in accordance with the Option Agreement) from the person entitled to exercise the Option, and (ii) full payment for the Shares with respect to which the Option is exercised. Full payment may consist of any consideration and method of payment authorized by the Administrator and permitted by the Option Agreement and the Plan. Shares issued upon exercise of an Option shall be issued in the name of the Optionee or, if requested by the Optionee, in the name of the Optionee and his or her spouse. Until the Shares are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a shareholder shall exist with respect to the Shares, notwithstanding the exercise of the Option. The Company shall issue (or cause to be issued) such Shares promptly after the Option is exercised. No adjustment will be made for a dividend or other right for which the record date is prior to the date the Shares are issued, except as provided in Section 12 of the Plan.

Exercise of an Option in any manner shall result in a decrease in the number of Shares thereafter available, both for purposes of the Plan and for sale under the Option, by the number of Shares as to which the Option is exercised.

- b. Termination of Relationship as a Service Provider. If an Optionee ceases to be a Service Provider, such Optionee may exercise his or her Option within such period of time as is specified in the Option Agreement (of at least thirty (30) days) to the extent that the Option is vested on the date of termination (but in no event later than the expiration of the term of the Option as set forth in the Option Agreement). In the absence of a specified time in the Option Agreement, the Option shall remain exercisable for three (3) months following the Optionee's termination. If, on the date of termination, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall revert to the Plan. If, after termination, the Optionee does not exercise his or her Option within the time specified by the Administrator, the Option shall terminate, and the Shares covered by such Option shall revert to the Plan.
- c. Disability of Optionee. If an Optionee ceases to be a Service Provider as a result of the Optionee's Disability, the Optionee may exercise his or her Option within such period of time as is specified in the Option Agreement to the extent the Option is vested on the date of termination (but in no event later than the expiration of the term of such Option as set forth in the Option Agreement). In the absence of a specified time in the Option Agreement, the Option shall remain exercisable for twelve (12) months following the Optionee's termination. If such disability is not a "disability" as such term is defined in Section 22(e) (3) of the Code, in the case of an



Incentive Stock Option such Incentive Stock Option shall automatically cease to be treated as an Incentive Stock Option and shall be treated for tax purposes as a Nonstatutory Stock Option on the day three months and one day following such termination. If, on the date of termination, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall revert to the Plan. If, after termination, the Optionee does not exercise his or her Option within the time specified herein, the Option shall terminate, and the Shares covered by such Option shall revert to the Plan.

- d. Death of Optionee. If an Optionee dies while a Service Provider, the Option may be exercised within such period of time as is specified in the Option Agreement (but in no event later than the expiration of the term of such Option as set forth in the Notice of Grant), by the Optionee's estate or by a person who acquires the right to exercise the Option by bequest or inheritance, but only to the extent that the Option is vested on the date of death. In the absence of a specified time in the Option Agreement, the Option shall remain exercisable for twelve (12) months following the Optionee's termination. If, at the time of death, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall immediately revert to the Plan. The Option may be exercised by the executor or administrator of the Optionee's estate or, if none, by the person(s) entitled to exercise the Option under the Optionee's will or the laws of descent or distribution. If the Option is not so exercised within the time specified herein, the Option shall terminate, and the Shares covered by such Option shall revert to the Plan.
- e. Buyout Provisions. The Administrator may at any time offer to buy out for a payment in cash or Shares, an Option previously granted, based on such terms and conditions as the Administrator shall establish and communicate to the Optionee at the time that such offer is made.

10. Non-Transferability of Options and Stock Purchase Rights. Options and Stock Purchase Rights may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or by the laws of descent or distribution and may be exercised, during the lifetime of the Optionee, only by the Optionee.

11. Stock Purchase Rights.

- a. Rights to Purchase. Stock Purchase Rights may be issued either alone, in addition to, or in tandem with other awards granted under the Plan and/or cash awards made outside of the Plan. After the Administrator determines that it will offer Stock Purchase Rights under the Plan, it shall advise the offeree in writing or electronically of the terms, conditions and restrictions

related to the offer, including the number of Shares that such person shall be entitled to purchase, the price to be paid, and the time within which such person must accept such offer. The terms of the offer shall comply in all respects with Section 260.140.42 of Title 10 of the California Code of Regulations. The offer shall be accepted by execution of a Restricted Stock purchase agreement in the form determined by the Administrator.

- b. Repurchase Option. Unless the Administrator determines otherwise, the Restricted Stock purchase agreement shall grant the Company a repurchase option exercisable upon the voluntary or involuntary termination of the purchaser's service with the Company for any reason (including death or disability). The purchase price for Shares repurchased pursuant to the Restricted Stock purchase agreement shall be the original price paid by the purchaser and may be paid by cancellation of any indebtedness of the purchaser to the Company. The repurchase option shall lapse at such rate as the Administrator may determine, but in no case at a rate of less than 20% per year over five years from the date of purchase.
- c. Other Provisions. The Restricted Stock purchase agreement shall contain such other terms, provisions and conditions not inconsistent with the Plan as may be determined by the Administrator in its sole discretion.
- d. Rights as a Shareholder. Once the Stock Purchase Right is exercised, the purchaser shall have rights equivalent to those of a shareholder and shall be a shareholder when his or her purchase is entered upon the records of the duly authorized transfer agent of the Company. No adjustment shall be made for a dividend or other right for which the record date is prior to the date the Stock Purchase Right is exercised, except as provided in Section 12 of the Plan.

12. Adjustment Upon Changes in Capitalization, Merger or Asset Sale.

- a. Changes in Capitalization. Subject to any required action by the shareholders of the Company, the number of shares of Common Stock covered by each outstanding Option or Stock Purchase Right, and the number of shares of Common Stock which have been authorized for issuance under the Plan but as to which no Options or Stock Purchase Rights have yet been granted or which have been returned to the Plan upon cancellation or expiration of an Option or Stock Purchase Right, as well as the price per share of Common Stock covered by each such outstanding Option or Stock Purchase Right, shall be proportionately adjusted for any increase or decrease in the number of issued shares of Common Stock resulting from a stock split, reverse stock split, stock dividend, combination or reclassification of the Common Stock, or any other increase or decrease

in the number of issued shares of Common Stock effected without receipt of consideration by the Company. The conversion of any convertible securities of the Company shall not be deemed to have been "effected without receipt of consideration." Such adjustment shall be made by the Board, whose determination in that respect shall be final, binding and conclusive. Except as expressly provided herein, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number or price of shares of Common Stock subject to an Option or Stock Purchase Right.

- b. Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, the Administrator shall notify each Optionee as soon as practicable prior to the effective date of such proposed transaction. The Administrator in its discretion may provide for an Optionee to have the right to exercise his or her Option until fifteen (15) days prior to such transaction as to all of the Optioned Stock covered thereby, including Shares as to which the Option would not otherwise be exercisable. In addition, the Administrator may provide that any Company repurchase option applicable to any Shares purchased upon exercise of an Option or Stock Purchase Right shall lapse as to all such Shares, provided the proposed dissolution or liquidation takes place at the time and in the manner contemplated. To the extent it has not been previously exercised, an Option or Stock Purchase Right will terminate immediately prior to the consummation of such proposed action.
- c. Merger or Asset Sale. In the event of a merger of the Company with or into another corporation, or the sale of substantially all of the assets of the Company, each outstanding Option and Stock Purchase Right shall be assumed or an equivalent option or right substituted by the successor corporation or a Parent or Subsidiary of the successor corporation. In the event that the successor corporation refuses to assume or substitute for the Option or Stock Purchase Right, the Optionee shall fully vest in and have the right to exercise the Option or Stock Purchase Right as to all of the Optioned Stock, including Shares as to which it would not otherwise be vested or exercisable. If an Option or Stock Purchase Right becomes fully vested and exercisable in lieu of assumption or substitution in the event of a merger or sale of assets, the Administrator shall notify the Optionee in writing or electronically that the Option or Stock Purchase Right shall be fully exercisable for a period of fifteen (15) days from the date of such notice, and the Option or Stock Purchase Right shall terminate upon the expiration of such period. For the purposes of this paragraph, the Option or Stock Purchase Right shall be considered assumed if, following the merger or sale of assets, the option or right confers the right to purchase

or receive, for each Share of Optioned Stock subject to the Option or Stock Purchase Right immediately prior to the merger or sale of assets, the consideration (whether stock, cash, or other securities or property) received in the merger or sale of assets by holders of Common Stock for each Share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding Shares); provided, however, that if such consideration received in the merger or sale of assets is not solely common stock of the successor corporation or its Parent, the Administrator may, with the consent of the successor corporation, provide for the consideration to be received upon the exercise of the Option or Stock Purchase Right, for each Share of Optioned Stock subject to the Option or Stock Purchase Right, to be solely common stock of the successor corporation or its Parent equal in fair market value to the per share consideration received by holders of Common Stock in the merger or sale of assets.

13. Time of Granting Options and Stock Purchase Rights. The date of grant of an Option or Stock Purchase Right shall, for all purposes, be the date on which the Administrator makes the determination granting such Option or Stock Purchase Right, or such other date as is determined by the Administrator. Notice of the determination shall be given to each Employee or Consultant to whom an Option or Stock Purchase Right is so granted within a reasonable time after the date of such grant.

14. Amendment and Termination of the Plan.

- a. Amendment and Termination. The Board may at any time amend, alter, suspend or terminate the Plan.
- b. Shareholder Approval. The Board shall obtain shareholder approval of any Plan amendment to the extent necessary and desirable to comply with Applicable Laws.
- c. Effect of Amendment or Termination. No amendment, alteration, suspension or termination of the Plan shall impair the rights of any Optionee, unless mutually agreed otherwise between the Optionee and the Administrator, which agreement must be in writing and signed by the Optionee and the Company. Termination of the Plan shall not affect the Administrator's ability to exercise the powers granted to it hereunder with respect to Options granted under the Plan prior to the date of such termination.

15. Conditions Upon Issuance of Shares.

- a. Legal Compliance. Shares shall not be issued pursuant to the exercise of an Option unless the exercise of such Option and the issuance and delivery of such Shares shall comply with Applicable Laws and shall be further subject to the approval of counsel for the Company with respect to such compliance.
- b. Investment Representations. As a condition to the exercise of an Option, the Administrator may require the person exercising such Option to represent and warrant at the time of any such exercise that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required.

16. Inability to Obtain Authority. The inability of the Company to obtain authority from any regulatory body having jurisdiction, which authority is deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder, shall relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority shall not have been obtained.

17. Reservation of Shares. The Company, during the term of this Plan, at all times reserve and keep available such number of Shares as shall be sufficient to satisfy the requirements of the Plan.

18. Shareholder Approval. The Plan shall be subject to approval by the shareholders of the Company within twelve (12) months after the date the Plan is adopted. Such shareholder approval shall be obtained in the degree and manner required under Applicable Laws.

19. Information to Optionees and Purchasers. The Company shall provide to each Optionee and to each individual who acquires Shares pursuant to the Plan, not less frequently than annually during the period such Optionee or purchaser has one or more Options or Stock Purchase Rights outstanding, and, in the case of an individual who acquires Shares pursuant to the Plan, during the period such individual owns such Shares, copies of annual financial statements. The Company shall not be required to provide such statements to key employees whose duties in connection with the Company assure their access to equivalent information.

## CYTOTHERAPEUTICS, INC.

1997 CYTOTHERAPEUTICS, INC. STEMCELLS RESEARCH  
STOCK OPTION PLAN

## 1. PURPOSE

The purpose of this 1997 CytoTherapeutics, Inc. StemCells Research Stock Option Plan (the "Plan") is to advance the interests of CytoTherapeutics, Inc. (the "Company") by enhancing the ability of the Company and its subsidiaries to attract and retain directors, employees, consultants or advisers who are in a position to make significant contributions to the success of the Company, and in particular the success of the Company's research programs, to reward them for their contributions and to encourage them to take into account the long-term interests of the Company.

The Plan provides for the award of options to purchase shares of the Company's common stock ("Stock"). Options granted pursuant to the Plan may be incentive stock options as defined in section 422 of the Internal Revenue Code of 1986 (as from time to time amended, the "Code") (any option that is intended to qualify as an incentive stock option being referred to herein as an "incentive option"), or options that are not incentive options, or both. Options granted pursuant to the Plan shall be presumed to be non-incentive options unless expressly designated as incentive options.

## 2. ELIGIBILITY FOR AWARDS

Persons eligible to receive awards under the Plan shall be all executive officers of the Company and its subsidiaries and other employees, consultants and advisers who, in the opinion of the Board, are in a position to make a significant contribution to the success of the Company and its subsidiaries, and in particular the success of the Company's stemcells research programs. Directors, including directors who are not employees, of the Company shall be eligible to receive awards under the Plan to the extent that their eligibility would not disqualify them as disinterested persons for purposes of rule 16b-3 ("Rule 16b-3") under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Incentive options shall be granted only to "employees" as defined in the provisions of the Code or regulations thereunder applicable to incentive stock options. A subsidiary for purposes of the Plan shall 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. Persons selected for awards under the Plan are referred to herein as "participants."

## 3. ADMINISTRATION

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The Plan shall be administered by the Board of Directors (the "Board") of the Company. The Board shall have authority, not inconsistent with the express provisions of the Plan, (a) to grant awards consisting of options, to such participants as the Board may select; (b) to determine the time or times when awards shall be granted and the number of shares of Stock subject to each award; (c) to determine which options are, and which options are not, incentive options; (d) to determine the terms and conditions of each award; (e) to prescribe the form or forms of any instruments evidencing awards and any other instruments required under the Plan and to change such forms from time to time; (f) to adopt, amend and rescind rules and regulations for the administration of the Plan; and (g) to interpret the Plan and to decide any questions and settle all controversies and disputes that may arise in connection with the Plan. Such determinations of the Board shall be conclusive and shall bind all parties. Subject to Section 8 the Board shall also have the authority, both generally and in particular instances, to waive compliance by a participant with any obligation to be performed by the participant under an award--, to waive any condition or provision of an award, and to amend or cancel any award (and if an award is canceled, to grant a new award on such terms as the Board shall specify) except that the Board may not take any action with respect to an outstanding award that would adversely affect the rights of the participant under such award without such participant's consent. Nothing in the preceding sentence shall be construed as limiting the power of the Board to make adjustments required by Section 5(c) and Section 6(j).

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 in this Plan (as appropriate) to the Board 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. In the event the Board shall delegate the power to select directors and executive officers to receive awards under the Plan and the timing, pricing and amount of such awards to a committee or committees, the make-up of the Committee shall satisfy the requirements of Rule 16b-3 applicable to the Company and all members of which shall be disinterested persons within the meaning of the applicable provisions of Rule 16b-3 and, with respect to executive officers only, "outside directors" within the meaning of Section 162(m) under the Code.

4. EFFECTIVE DATE AND TERM OF PLAN

No awards shall be granted under the Plan after the completion of ten years from the date on which the Plan was adopted by the Board, but awards previously granted may extend beyond that date.

5. SHARES SUBJECT TO THE PLAN

- a. Number of Shares. Subject to adjustment as provided in Section 5(c), the aggregate number of shares of Stock that may be delivered upon the exercise of awards granted under the Plan shall be 2,000,000 common shares. If any award granted under the Plan terminates without having been exercised in full, or upon exercise is satisfied other than by delivery of Stock, the number of shares of Stock as to which such award was not exercised shall be available for future grants within the limits set forth in this Section 5(a).

The maximum number of shares for which options may be granted to any individual over the life of the Plan shall be 1,000,000. 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.

- b. Shares to be Delivered. Shares delivered under the Plan shall be authorized but unissued Stock or, if the Board so decides in its sole discretion, previously issued Stock acquired by the Company and held in its treasury. No fractional shares of Stock shall be delivered under the Plan.
- c. Changes in Stock. In the event of a stock dividend, stock split or combination of shares, recapitalization or other change in the Company's capital stock, the number and kind of shares of Stock subject to awards then outstanding or subsequently granted under the Plan, the exercise price of such awards, the maximum number of shares of Stock that may be delivered under the Plan, and other relevant provisions shall be appropriately adjusted by the Board, whose determination shall be binding on all persons.

The Board may also adjust the number of shares subject to outstanding awards and the exercise price and the terms of outstanding awards to take into consideration material changes in accounting practices or principles, extraordinary dividends, consolidations or mergers (except those described in Section 6(j)), acquisitions or dispositions of stock or property or any other event if it is determined by the Board that such adjustment is appropriate to avoid distortion in the operation of the Plan, provided that no such adjustment shall be made in the case of an incentive option, without the consent of the participant, if it would constitute a modification, extension or renewal of the option within the meaning of section 424(h) of the Code.

6. TERMS AND CONDITIONS OF OPTIONS



- a. Exercise Price of Options. The exercise price of each option shall be determined by the Board but in the case of an incentive option shall not be less than 100% (110%, in the case of an incentive option granted to a ten percent shareholder) of the fair market value of the Stock at the time the option is granted; nor shall the exercise price be less, in the case of an original issue of authorized stock, than par value. For this purpose, "fair market value" in the case of incentive options shall have the same meaning as it does in the provisions of the Code and the regulations thereunder applicable to incentive options; and "ten-percent shareholder" shall mean any participant who at the time of grant owns directly, or by reason of the attribution rules set forth in section 424(d) of the Code, is deemed to own stock possessing more than 10% of the total combined voting power of all classes of stock of the Company or of any of its parent or subsidiary corporations.
- b. Duration of Options. Options shall be exercisable during such period or periods as the Board may specify. The latest date on which an option may be exercised (the "Final Exercise Date") shall be the date that is ten years (five years, in the case of an incentive option granted to a "ten-percent shareholder" as defined in (a) above) from the date the option was granted or such earlier date as the Board may specify at the time the option is granted.
- c. Exercise of Options.
- i. Options shall become exercisable at such time or times and upon such conditions as the Board shall specify. In the case of an option not immediately exercisable in full, the Board may at any time accelerate the time at which all or any part of the option may be exercised.
- ii. Options may be exercised only in writing. Written notice of exercise must be signed by the proper person and furnished to the Company, together with (i) such documents as the Board may require and (ii) in the case of options, payment in full as specified below in Section 6(d) for the number of shares for which the option is exercised.
- iii. The delivery of Stock upon the exercise of an option shall be subject to compliance with (i) applicable federal and state laws and regulations, (ii) if the outstanding Stock is at the time listed on any stock exchange, the listing requirements of such exchange, and (iii)

Company counsel's approval of all other legal matters in connection with the issuance and delivery of such Stock.

- iv. In the case of an option that is not an incentive option, the Board shall have the right to require that the participant exercising the option remit to the Company an amount sufficient to satisfy any federal, state, or local withholding tax requirements (or make other arrangements satisfactory to the Company with regard to such taxes) prior to the delivery of any Stock pursuant to the exercise of the option. If permitted by the Board, either at the time of the grant of the option or the time of exercise, the participant may elect, at such time and in such manner as the Board may prescribe, to satisfy such withholding obligation by (i) delivering to the Company Stock (which in the case of Stock acquired from the Company shall have been owned by the participant for at least six months prior to the delivery date) having a fair market value equal to such withholding obligation, or (ii) requesting that the Company withhold from the shares of Stock to be delivered upon the exercise a number of shares of Stock having a fair market value equal to such withholding obligation.

In the case of an incentive option, if at the time the option is exercised the Board determines that under applicable law and regulations the Company could be liable for the withholding of any federal or state tax with respect to a disposition of the Stock received upon exercise, the Board may require as a condition of exercise that the participant exercising the option agree (i) to inform the Company promptly of any disposition (within the meaning of section 424(c) of the Code and the regulations thereunder) of Stock received upon exercise, and (ii) to give such security as the Board deems adequate to meet the potential liability of the Company for the withholding of tax, 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.

- v. If an option is exercised by the executor or administrator of a deceased participant, or by the person or persons to whom the option has been transferred by the participant's will or the applicable laws of descent and distribution, the Company shall be under no obligation to deliver Stock pursuant to such exercise until the Company is satisfied as to the authority of the person or persons exercising the option.

- d. Payment for and Delivery of Stock. Stock purchased upon exercise of an option under the Plan shall be paid for as follows:
- (1) in cash or by personal check, certified check, bank draft or money order payable to the order of the Company; or
  - (2) if so permitted by the Board (which, in the case of an incentive option, shall specify the method of payment at the time of grant), (A) through the delivery of shares of Stock (which, in the case of Stock acquired from the Company, shall have been held for at least six months prior to delivery) having a fair market value on the last business day preceding the date of exercise equal to the purchase price or (B) by delivery of a promissory note of the participant to the Company, such note to be payable on such terms as are specified by the Board or (C) 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 (D) 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 shall be paid other than by a personal check or promissory note of the person exercising the option.
- e. [Intentionally Omitted]
- f. Rights as Shareholder. A participant shall not have the rights of a shareholder with regard to awards under the Plan except as to Stock actually received by the participant under the Plan.
- g. Nontransferability of Awards. Except as the Board may otherwise determine, no award may be transferred other than by will or by the laws of descent and distribution, and during a participant's lifetime an award may be exercised only by the participant.
- h. Death. If a participant dies, each option held by the participant immediately prior to death may be exercised, to the extent it was exercisable immediately prior to death, by the participant's executor or administrator or by the person or persons to whom the option is transferred by will or the applicable laws of descent and distribution, at any time within the one-year period (or such longer or shorter period as the Board may determine) beginning with the date of the participant's death but in no event beyond the Final Exercise Date. All options held by a participant

immediately prior to death that are not then exercisable shall terminate on the date of death.

- i. Termination of Service Other Than By Death. Except as otherwise determined by the Board, if an employee's employment with the Company and its subsidiaries terminates for any reason other than by death, all options held by the employee that are not then exercisable shall terminate. Options that are exercisable on the date employment terminates shall continue to be exercisable for a period of three months (or such longer period as the Board may determine, but in no event beyond the Final Exercise Date) unless the employee was discharged for cause that in the opinion of the Board casts such discredit on the employee as to justify termination of the employee's options. After completion of the post-termination exercise period, such options shall terminate to the extent not previously exercised, expired or terminated. For purposes of this Section 6(i), employment shall not be considered terminated (i) in the case of sick leave or other bona fide leave of absence approved for purposes of the Plan by the Board, so long as the employee's right to reemployment is guaranteed either by statute or by contract, or (ii) in the case of a transfer of employment between the Company and a subsidiary or between subsidiaries, or to the employment of a corporation (or a parent or subsidiary corporation of such corporation) issuing or assuming an option or SAR in a transaction to which section 424(a) of the Code applies.

In the case of a participant who is not an employee, provisions relating to the exercisability of options following termination of service shall be specified in the award. If not so specified, all options held by such participant that are not then exercisable shall terminate upon termination of service. Unless otherwise provided for in the award, options that are exercisable on the date the participant's service as a director, consultant or adviser terminates shall continue to be exercisable for a period of three months (or such longer period as the Board may determine, but in no event beyond the Final Exercise Date). After completion of the post-termination exercise period, such options shall terminate to the extent not previously exercised, expired or terminated.

- j. Mergers, etc. Except as otherwise determined by the Board and specified in the award, in the event of a consolidation or merger in which the Company is not the surviving corporation or which results in the acquisition of substantially all the Company's outstanding Stock by a single person or entity or by a group of persons and/or entities acting in concert, or in the event of the sale or transfer of substantially all the Company's assets, all outstanding awards shall thereupon terminate, provided that at least 20 days prior to the effective date of any such merger, consolidation or sale of assets, the Board shall either (i) make all outstanding awards exercisable immediately prior to consummation of such merger,

consolidation or sale of assets or (ii) if there is a surviving or acquiring corporation, arrange, subject to consummation of the merger, consolidation or sale of assets, to have that corporation or an affiliate of that corporation grant to participants replacement awards, which awards in the case of incentive options shall satisfy, in the determination of the Board, the requirements of section 424(a) of the Code.

The Board may grant awards under the Plan in substitution for awards held by directors, employees, consultants or advisers of another corporation who concurrently become directors, employees, consultants or advisers of the Company or a subsidiary of the Company as the result of a merger or consolidation of that corporation with the Company or a subsidiary of the Company, or as the result of the acquisition by the Company or a subsidiary of the Company of property or stock of that corporation. The Company may direct that substitute awards be granted on such terms and conditions as the Board considers appropriate in the circumstances.

#### 7. EMPLOYMENT RIGHTS

Neither the adoption of the Plan nor the grant of awards shall confer upon any participant any right to continue as an employee or director of, or consultant or adviser to, the Company or any parent or subsidiary or affect in any way the right of the Company or parent or subsidiary to terminate them 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 this Plan shall not constitute an element of damages in the event of termination of the relationship of a participant even if the termination is in violation of an obligation of the Company to the participant by contract or otherwise.

#### 8. EFFECT, DISCONTINUANCE, CANCELLATION, AMENDMENT AND TERMINATION

Neither adoption of the Plan nor the grant of awards to a participant shall affect the Company's right to make awards to such participant 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 may be issued.

The Board may at any time discontinue granting awards under the Plan. With the consent of the participant, the Board may at any time cancel an existing award in whole or in part and grant another award for such number of shares as the Board specifies. The Board may at any time or times amend the Plan or any outstanding award for the purpose of satisfying the requirements of section 422 of the Code or of any changes in applicable laws or regulations or for any other purpose that may at the time be permitted by law, or may at any time terminate the Plan as to further grants of awards, but no such amendment shall adversely affect the rights of any participant (without the participant's consent) under any award previously granted.

Optionee: \_\_\_\_\_ Shares Subject to Option: \_\_\_\_\_

Dated: \_\_\_\_\_

CYTOTHERAPEUTICS, INC.

PERFORMANCE-BASED INCENTIVE OPTION AGREEMENT

This Agreement is made as of the date set forth above by and between CytoTherapeutics, Inc., a Delaware corporation (the "Company" or "CTI"), and the Optionee specified above (the "Optionee").

WHEREAS, Optionee has entered into a Consulting or Employment Agreement with the Company which provides for the grant of the options evidenced hereby (the "Consulting/Employment Agreement"); and

WHEREAS, Optionee is in a position to make a significant contribution to the long-term success of the Company, and in particular the Company's stemcell research program.

NOW, THEREFORE, the Company and Optionee agree as follows:

1. Grant of Option. This agreement evidences the grant by the Company to Optionee pursuant to the Company's 1997 StemCells Research Stock Option Plan (the "Plan") of an option to purchase, in whole or in part, on the terms provided herein, the number of shares specified above of the Company's Common Stock, \$.01 par value (the "Common Stock"), at a per share price equal to the last sales price for the Common Stock on the NASDAQ National Market System on the last trading day prior to the date of this Agreement (the "Option"). This Option is not intended to qualify as an "incentive stock option" within the meaning of Section 422 of the Internal Revenue Code of 1986, as amended. This Option shall terminate on the tenth anniversary of the date of this Agreement (the "Final Exercise Date"), and is subject to earlier termination as provided in Sections 6 and 7 below.

2. Exercisability of Option. Subject to the terms and conditions hereof, this Option shall vest and become exercisable as follows:

Milestone - - - - -	% of Shares Vesting -----
On the date of this Agreement	6.25%

First Corporate Partnership (as defined below)  
(before September 1, 1998)

If greater than \$5,000,000 and less than or equal to \$10,000,000	6.25%
If greater than \$10,000,000 and less than or equal to \$15,000,000	8.75%
If greater than \$15,000,000	11.25%

Second Corporate Partnership (before September 1, 1999)

If greater than \$5,000,000 and less than or equal to \$10,000,000	6.25%
If greater than \$10,000,000 and less than or equal to \$15,000,000	8.75%
If greater than \$15,000,000	11.25%

First Corporate Partnership resulting from discovery of  
a new stem cell (before June 30, 2000)

If greater than \$5,000,000 and less than or equal to \$10,000,000	6.25%
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If greater than \$10,000,000 and less than or equal to \$15,000,000	8.75%
If greater than \$15,000,000	11.25%
Second Corporate Partnership resulting from discovery of a new stem cell (before June 30, 2000)	
If greater than \$5,000,000 and less than or equal to \$10,000,000	6.25%
If greater than \$10,000,000 and less than or equal to \$15,000,000	8.75%
If greater than \$15,000,000	11.25%
Commencement of first clinical trial of a CTI stem cell product (before June 30, 2000)	12.50%
Filing of first United States regulatory filing for marketing 12.50% approval of a CTI stem cell product (before June 30, 2003)	12.50%

Filing of first European Union or Japanese regulatory filing for market approval with respect to a CTI stem cell product (before June 30, 2004) 12.50%

First United States commercial approval of a CTI stem cell product (before June 30, 2005) 25.00%

First European Union or Japanese commercial approval of a CTI stem cell product (before June 30, 2005) 25.00%

For purposes of the foregoing, "Corporate Partnership" means any joint venture, licensing agreement, collaboration agreement, or research and development agreement to which the Company is a party and which is material to the long-term success of the Company. A "Corporate Partnership resulting from the discovery of a new stem cell" shall mean a Corporate Partnership which is formed to commercially develop technology resulting from research conducted pursuant to the Research Plan (as such term is defined in a letter agreement between the Company and Messrs. Weissman, Gage and Anderson, dated as of September \_\_, 1997) which the corporate partner and CTI reasonably believe has resulted in the discovery of a previously undiscovered stem cell. The dollar amounts set forth above with respect to Corporate Partnerships refer to the receipt by the Company of the aggregate amount of the following payments received in connection with any such Corporate Partnership:

- (i) any non-refundable up-front license fees;
- (ii) the present value of all non-refundable, non-contingent license fees payable at a later date;
- (iii) the amount by which the purchase price paid for any non-refundable, non-contingent equity investment in the Company made in connection with such Corporate Partnership exceeds the fair market value of such equity investment as reasonably determined by the Board of Directors of the Company; and
- (iv) 50% of all non-contingent payments for sponsored research under any sponsored research agreement, provided, however, that in the case of the \$5 million target in each of the first two corporate partnership milestones, 100% of such payments shall count toward satisfaction of such target.

The Company shall not structure any Corporate Partnership in a bad faith effort to avoid giving rise to the vesting of options hereunder.

3. Exercise of Option. Each election to exercise this Option shall be in writing, signed by Optionee or by his duly appointed guardian or representative, his executor or



administrator or the person or persons to whom this Option is transferred by will or the applicable laws of descent and distribution (collectively, the "Legal Representative"), and received by the Company at its principal office in Providence, Rhode Island, accompanied by payment in full as provided in Section 4 below. In the event this Option is exercised by such Legal Representative, the Company shall be under no obligation to deliver stock hereunder unless and until the Company is reasonably satisfied that the person or persons exercising this Option is or are the duly appointed guardian(s) or representative(s) of Optionee, the duly appointed executor(s) or administrator(s) of the deceased Optionee or the person or persons to whom this Option has been transferred by will or the applicable laws of descent and distribution.

4. Payment for Stock. Shares of Common Stock shall be issued only upon receipt by the Company of full payment of the purchase price for the shares as to which this Option is exercised. The purchase price is payable by Optionee to the Company either (i) in cash or by certified check or cashier's check payable to the order of the Company; or (ii) through the delivery of shares of Common Stock (duly owned by Optionee and as to which Optionee has good title free and clear of any liens and encumbrances) which have been outstanding for at least six months and which have a fair market value (as determined by the Board of Directors of the Company) on the last business day prior to the date of exercise of this Option equal to the purchase price; 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 any combination of the forgoing permissible forms of payment. The Company will not be obligated to deliver any shares unless and until, in the opinion of the Company's counsel, all applicable federal and state laws and regulations have been complied with, nor, in the event the outstanding Common Stock is at the time listed upon any stock exchange, unless and until the shares to be delivered have been listed or authorized to be listed upon official notice that legal matters in connection with the issuance and delivery of such shares have been approved by the Company's counsel. The Company will use its best efforts to effect any such compliance or listing, and Optionee agrees to take any action reasonably requested by the Company in connection therewith. Subject to any applicable limitations under the Securities Act of 1933, as amended, and the rules and regulations thereunder, the Company will promptly file a Registration Statement on Form S-8 (or any successor form), with respect to the shares of Common Stock issuable upon exercise of this Option, and the Company will use all reasonable efforts to maintain the effectiveness of such registration statement for so long as this Option shall remain outstanding. The Company may require that Optionee agree that he will notify the Company when he makes any disposition of the shares issued upon exercise of this Option whether by sale, gift or otherwise. Optionee will have the rights of a shareholder only as to shares actually acquired by him upon exercise of this Option.

5. Non-transferability of Option. This Option may not be transferred by Optionee otherwise than by will or by the laws of descent and distribution. During Optionee's lifetime this Option may be exercised only by Optionee or Optionee's duly appointed guardian or representative.

6. Termination of Service. In the event Optionee ceases to be a consultant to or employee of the Company because the Company terminates his service for Cause (as defined in the Consulting/Employment Agreement) or Optionee terminates his service without Good Reason (as defined in the Consulting/Employment Agreement), this Option shall immediately terminate except that Optionee may thereafter exercise this Option, to the extent he was entitled to exercise it on the date when his service terminated, for a period of 90 days after the date of such termination. In no event, however, may this Option be exercised after the Final Exercise Date.

7. Death or Disability. In the event Optionee dies or Optionee's service with the Company terminates by reason of disability (meaning the inability of Optionee, because of physical or mental illness or injury, to perform substantially all of his duties and responsibilities to the Company), this Option shall continue to be eligible for vesting as set forth in Section 2 of this Agreement for a period of two years after Optionee's death or the termination of his service because of disability. In addition, this Option may be exercised, as to all or any of (a) the shares that Optionee was entitled to purchase immediately prior to his death or the termination of his service because of disability and (b) the shares that vest in accordance with the preceding sentence, by Optionee or his Legal Representative, at any time or times within three years after his death or such termination of service. Except as so exercised this Option will expire at the end of such period. In no event, however, may this Option be exercised after the Final Exercise Date.

8. Administration. This Option will be administered by the Board of Directors of the Company, which will have the authority to interpret this agreement and to decide all questions and settle all controversies and disputes which may arise in connection herewith. All decisions, determinations and interpretations of the Board of Directors will be binding on all parties concerned. A majority of the members of the Board of Directors will constitute a quorum, and all determinations of the Board of Directors will be made by a majority of its members. Any determination of the Board of Directors under this agreement may be made without notice or meeting of the Board of Directors by a written instrument signed by a majority of the members of the Board of Directors. In the event of any conflict between the terms of this Option and the terms of the Plan the terms of this Option will control.

9. Stock to be Delivered. Stock to be delivered upon exercise of this Option may constitute an original issue of authorized but unissued stock or may consist of previously issued stock acquired by the Company as determined from time to time by the Board of Directors. The Board of Directors and the proper officers of the Company will take any appropriate action required for such delivery.

10. Changes in Stock. In the event of a stock dividend, stock split or combination of shares, recapitalization or other change in the Company's capital structure, the Board of Directors of the Company (whose determination will be binding on Optionee) will make

appropriate adjustments to the number and kind of shares of stock or other securities subject to this Option, the exercise price and other relevant provisions. Except as provided in the following paragraph, in the event of a Change in Control (as defined below), this Option will expire and cease to be exercisable, provided that at least twenty days prior to the effective date of any such Change in Control, the Board of Directors shall either (a) make this Option immediately exercisable in full, or (b) arrange to have the acquiror or an affiliate thereof grant a replacement option or other replacement award containing terms that the Board of Directors reasonably determines to be equitable under the circumstances. "Change in Control" means any consolidation or merger in which the Company is not the surviving corporation, a transaction or series of related transactions that result in the acquisition of all or substantially all of the Company's outstanding Common Stock by a single person or entity or by a group of persons or entities acting in concert, or the sale or transfer of all or substantially all of the Company's assets.

11. Acceleration of Options on Change in Control. Any Change in Control will result in the accelerated vesting of the lesser of (i) 50% of the shares originally issuable pursuant to this Option or (ii) all of the shares which would become vested on the achievement of all milestones which are not time-barred at the time of Change in Control.

In addition, the Shares subject to this Option shall be accelerated under the circumstances and to the extent described in Section 1 (f) of the Agreement (the "Research Agreement") dated September 26, 1997 among the Company, Irving Weissman and Fred H. Gage.

12. Amendments. The Board of Directors of the Company may at any time or times amend this Option for the purpose of satisfying the requirements of any changes in applicable laws or regulations or for any other purpose which may at the time be permitted by law, provided that no such amendment will adversely affect the rights of Optionee without his consent.

13. Governing Law. This agreement shall be governed by and construed in accordance with the laws of the State of Delaware (not including the conflict of laws principles thereof).

[Incentive Option Agreement]

IN WITNESS WHEREOF, the Company has caused this agreement to be executed by its duly authorized officer. This Option is granted at the Company's office, on the date stated above.

CYTOTHERAPEUTICS, INC.

By: \_\_\_\_\_  
President

Accepted and Agreed:

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Optionee