Registration No. 333-

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

STEMCELLS, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

94-3078125 (I.R.S. Employer Identification Number)

3155 Porter Drive Palo Alto, CA 94304 (650) 475-3100 (Address, including zip code, and telephone number, including area code of principal executive offices) Kenneth B. Stratton, Esq. General Counsel StemCells, Inc. 3155 Porter Drive Palo Alto, CA 94304 (650) 475-3100 (Name, address, including zip code, and telephone

number, including area code, of agent for service)

Please send copies of all communications to: Geoffrey Davis, Esq. Ropes & Gray LLP One International Place Boston, Massachusetts 02110 (617) 951-7000

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

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

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

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

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

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. o

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer o	Accelerated filer \blacksquare	Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company o

CALCULATION OF REGISTRATION FEE (1)

Title of each class of securities to be registered	Proposed maximum aggregate offering price (1)(2)	Amount of registration fee (2)(3)
Common Stock, \$.01 par value per share (4)		
Preferred Stock (5)		
Warrants (6)		
Debt securities (7)		

Total

- (1) In no event will the aggregate offering price of all securities issued from time to time by the registrant under this registration statement exceed \$100,000,000 or its equivalent in any other currency, currency units, or composite currency or currencies. The securities covered by this registration statement may be sold separately, together or as units with other securities registered under this registration statement.
- (2) The proposed maximum aggregate price has been estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act.
- (3) Pursuant to Rule 415(a)(6) and Rule 457(p) under the Securities Act, the registrant is applying the filing fee of \$3,930 associated with the unsold securities under its registration statement on Form S-3 (No. 333-128797) initially filed with the Securities and Exchange Commission on October 4, 2005 (the "Prior Registration Statement") against the total filing fee of \$3,930 that would otherwise be due in connection with this registration statement. Pursuant to Rule 415(a)(6), the offering of unsold securities under the Prior Registration Statement will be deemed terminated as of the date of effectiveness of this registration statement.
- (4) Subject to note (1), this registration statement covers such an indeterminate amount of common stock (with accompanying purchase rights, if any), as may be sold, from time to time, at indeterminate prices, by the registrant.
- (5) Subject to note (1), this registration statement covers such an indeterminate number of shares of preferred stock (with accompanying purchase rights, if any) as may be sold from time to time at indeterminate prices by the registrant. Also covered is such an indeterminate amount of common stock (with accompanying purchase rights, if any,) (i) as may be issuable or deliverable upon conversion of shares of preferred stock, and (ii) as may be required for delivery upon conversion of shares of preferred stock as a result of anti-dilution provisions.
- (6) Subject to note (1), this registration statement covers such an indeterminate amount and number of warrants, representing rights to purchase common stock, preferred stock and debt securities registered under this registration statement as may be sold from time to time at indeterminate prices by the registrant. Also covered is such an indeterminate amount of common stock and preferred stock (in each case, with accompanying purchase rights, if any) and debt securities (i) as may be issuable or deliverable upon exercise of warrants, and (ii) as may be required for delivery upon exercise of any warrants as a result of anti-dilution provisions.
- (7) Subject to note (1), this registration statement covers such an indeterminate amount of debt securities as may be sold from time to time at indeterminate prices by the registrant. If any debt securities are issued at an original issue discount, then the offering price shall be in such greater principal amount as shall result in an aggregate initial offering price not to exceed \$100,000,000. Also covered is such an indeterminate amount of common stock and preferred stock (in each case, with accompanying purchase rights, if any) (i) as may be issuable or deliverable upon the exercise or conversion of debt securities, and (ii) as may be required for delivery upon exercise or conversion of debt securities as a result of anti-dilution.

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Security and Exchange Commission, acting pursuant to said section 8(a), may determine.

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

PROSPECTUS

SUBJECT TO COMPLETION June 24, 2008

\$100,000,000

STEMCELLS, INC.

Common Stock Preferred Stock Warrants Debt Securities

We may offer to the public, from time to time, in one or more series or issuances:

- shares of our common stock;
- shares of our preferred stock;
- warrants to purchase shares of our common stock, preferred stock and/or debt securities; or
- debt securities consisting of debentures, notes or other evidences of indebtedness.

This prospectus provides a general description of the securities we may offer. Each time we sell securities, we will provide specific terms of the securities offered in a supplement to this prospectus. The prospectus supplement may also add, update or change information contained in this prospectus. You should read this prospectus and the applicable prospectus supplement carefully before you invest in any securities. This prospectus may not be used to consummate a sale of securities unless accompanied by an applicable prospectus supplement. You should read both this prospectus and any prospectus supplement together with additional information described under the heading "Where You Can Find More Information" before you make your investment decision.

We will sell these securities directly to our stockholders or to purchasers or through agents on our behalf or through underwriters or dealers as designated from time to time. If any agents or underwriters are involved in the sale of any of these securities, the applicable prospectus supplement will provide the names of the agents or underwriters and any applicable fees, commissions or discounts.

Our common stock is traded on the Nasdaq Global Market under the symbol "STEM." On June 11, 2008, the closing price of our common stock was \$1.37 per share.

Investing in our securities involves risks. See "Risk Factors" on page 3.

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

The date of this prospectus is _____, 2008

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You should rely only on the information contained in this prospectus. We have not authorized anyone to give you information different from that contained in this prospectus. We are not making an offer to sell these securities in any jurisdiction where the offer is not permitted. The information contained in this prospectus is accurate only as of the date on the front cover of this prospectus, regardless of when this prospectus is delivered or when any sale of our securities occurs. Our business, financial condition, results of operations and prospects may have changed since that date.

EXHIBIT 12.1 EXHIBIT 23.2

ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, using a "shelf" registration process. Under this shelf registration process, we may offer to sell any combination of the securities described in this prospectus in one or more offerings up to a total dollar amount of \$100,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we sell securities under this shelf registration, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement, including all documents incorporated herein or therein by reference, together with additional information described under "Where You Can Find More Information."

We have not authorized any dealer, salesman or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and any accompanying prospectus supplement. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or an accompanying prospectus supplement. This prospectus and the accompanying prospectus supplement, if any, do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and the accompanying prospectus supplement constitute an offer to sell or the solicitation of an offer to sell or the solicitation of an offer to sell or the solicitation. You should not assume that the information contained in this prospectus and the accompanying prospectus supplement, if any, is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and any accompanying prospectus supplement is delivered or securities are sold on a later date.

ABOUT STEMCELLS, INC.

StemCells, Inc. is engaged in the discovery and development of cell-based therapeutics to treat damage to, or degeneration of, major organ systems. Our aim is to restore or support organ function, improve patients' lives and reduce the substantial health care costs associated with these diseases and disorders by identifying and developing stem and progenitor cells as potential therapeutic agents. We currently have product development programs for two cell types: the human neural stem cell and human liver engrafting cells. In our CNS Program, we are conducting a Phase I clinical trial to evaluate the safety and preliminary efficacy of our HuCNS-SC® product candidate (purified human neural stem cells) as a treatment for infantile and late infantile neuronal ceroid lipofuscinosis (NCL), two forms of a group of disorders often referred to as Batten disease. We have completed enrollment and dosing in this six-patient trial and expect it to be completed in early 2009. In addition, we are conducting preclinical work for spinal cord injury, myelin disorders and retinal disorders. In our Liver Program, we are in preclinical development with, and are continuing to improve processes to isolate and purify, our human liver engrafting cells (hLEC).

Many degenerative diseases are caused by the loss of normal cellular function in a particular organ. When cells are damaged or destroyed, they no longer produce, metabolize or accurately regulate substances, such as sugars, amino acids, neurotransmitters, and hormones, which are essential to life. Although traditional pharmaceuticals and genetically engineered biologics may have some utility in addressing a degenerative condition, there is no technology existing today that can deliver these essential substances precisely to the sites of action, under the appropriate physiological regulation, in the appropriate quantity, or for the duration required to cure the degenerative condition. Cells, however, can do all this naturally. Thus, transplantation of stem or progenitor cells may prevent the loss of, or even generate new, functional cells and potentially maintain or restore organ function and the patient's health.

We believe that, if successfully developed, our cell technologies will create the basis for therapies that would address a number of conditions with significant unmet medical needs. Many neurodegenerative diseases involve the failure of an organ that cannot be transplanted, i.e., the brain or spinal cord. Many liver diseases, such as hepatitis, can be addressed by a liver transplant, but transplantable livers are in very limited supply. We estimate that degenerative conditions of the central nervous system (CNS) and the liver together affect more than 35 million people in the United States and account for nearly \$200 billion annually in health care costs.¹

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

¹ This estimate is based on information from the Alzheimer's Association, the Alzheimer's Disease Education & Referral Center (National Institute on Aging), the National Parkinson Foundation, the National Institutes of Health's National Institute on Neurological Disorders and Stroke, the Foundation for Spinal Cord Injury Prevention, Care & Cure, the Travis Roy Foundation, the Centers for Disease Control and Prevention, the Wisconsin Chapter of the Huntington's Disease Society of America, the American Liver Foundation, the Cincinnati Children's Hospital Medical Center, and JAIDs.

RISK FACTORS

You should consider the "Risk Factors" included under Part I-Item 1A. of our most recent Annual Report on Form 10-K, which is incorporated by reference in this prospectus. The risks and uncertainties we describe are not the only ones facing us. Additional risks not presently known to us, or that we currently deem immaterial, may also impair our business operations. If any of these risks were to occur, our business, financial condition, and results of operations could be severely harmed. This could cause the trading price of our common stock to decline, and you could lose all or part of your investment.

FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated in this prospectus by reference may contain "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). These statements may be identified by the use of forward-looking words or phrases such as "anticipate," "believe," "could," "expect," "intend," "look forward," "may," "planned," "potential," "should," "will," and "would." These forward-looking statements reflect our current expectations and are based upon currently available data. The Private Securities Litigation Reform Act of 1995 provides a "safe harbor" for such forward-looking statements. In order to comply with the terms of the safe harbor, we note that a variety of factors could cause actual results and experience to differ materially from the anticipated results or other expectations expressed in the forward-looking statements.

Such statements include, without limitation, all statements as to expectation or belief and statements as to our future results of operations; the progress of our research, product development and clinical programs; the need for, and timing of, additional capital and capital expenditures; partnering prospects; costs of manufacture of products; the protection of, and the need for, additional intellectual property rights; effects of regulations; the need for additional facilities; and potential market opportunities. Our actual results may vary materially from those contained in such forward-looking statements because of risks to which we are subject, including uncertainty as to whether the U.S. Food and Drug Administration (FDA) or other regulatory authorities will permit us to proceed with clinical testing of proposed products despite the novel and unproven nature of our technologies; the risk that our initial clinical trial and any other clinical trials or studies could be substantially delayed beyond their expected dates or cause us to incur substantial unanticipated costs; uncertainties in our ability to obtain the capital resources needed to continue our current research and development operations and to conduct the research, preclinical development and clinical trials necessary for regulatory approvals; the uncertainty regarding our ability to obtain a corporate partner or partners, if needed, to support the development and commercialization of our potential cell-based therapeutics products; the uncertainty regarding the outcome of our Phase I clinical trial in NCL and any other clinical trials or studies we may conduct in the future; the uncertainty regarding the validity and enforceability of our issued patents; the uncertainty whether any products that may be generated in our cell-based therapeutics programs will prove clinically safe and effective; the uncertainty whether we will achieve revenue from product sales or become profitable; uncertainties regarding our obligations with respect to our former encapsulated cell therapy facilities in Rhode Island; obsolescence of our technologies; competition from third parties; intellectual property rights of third parties; litigation risks; and other risks to which we are subject. All forward-looking statements attributable to us or to persons acting on our behalf are expressly qualified in their entirety by the cautionary statements and risk factors set forth in "Risk Factors" in this prospectus.

The forward-looking statements included in this prospectus represent our estimates as of the date of this prospectus. We specifically disclaim any obligation to update these forward-looking statements in the future. These forward-looking statements should not be relied upon as representing our estimates or views as of any date subsequent to the date of this prospectus.

USE OF PROCEEDS

Except as otherwise provided in the applicable prospectus supplement, we intend to use the net proceeds from the sale of the securities covered by this prospectus for general corporate purposes, which may include working capital, capital expenditures, research and development expenditures, clinical trial expenditures, acquisitions of new technologies or businesses, and investments. Additional information on the use of net proceeds from the sale of securities covered by this prospectus may be set forth in the prospectus supplement relating to the specific offering.

RATIO OF EARNINGS TO FIXED CHARGES

Our earnings are inadequate to cover fixed charges. The following table sets forth the dollar amount of the coverage. We have not included a ratio of earnings to combined fixed charges and preferred stock dividends because we do not have any preferred stock outstanding.

	2003	2004	Year Ended December 3 2005 (in tho	1, 2006 pusands)	2007	Three Months Ended March 31, 2008
Ratio of earnings to fixed charges (1)	_	_	_	_	_	_
Deficiency of earnings available to cover fixed charges	\$(14,425)	\$(15,330)	\$(11,738)	\$(18,948)	\$(25,023)	\$(6,545)

(1) In each of the periods presented, our earnings were insufficient to cover fixed charges and accordingly ratios are not presented.

PLAN OF DISTRIBUTION

We may sell securities in any of the ways described below or in any combination of these:

- to or through underwriters or dealers;
- through one or more agents; or
- directly to purchasers or to a single purchaser.

The distribution of the securities may be effected from time to time in one or more transactions:

- at a fixed price, or prices, which may be changed from time to time;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

Each prospectus supplement will describe the method of distribution of the securities and any applicable restrictions.

The prospectus supplement with respect to the securities of a particular series will describe the terms of the offering of the securities, including the following:

- the name or names of any underwriters, dealers or agents and the amounts of securities underwritten or purchased by each of them;
- the initial public offering price of the securities and the proceeds to us and any discounts, commissions or concessions allowed or reallowed or paid to dealers; and
- any securities exchanges on which the securities may be listed.

Any initial public offering price and any discounts or concessions allowed or reallowed or paid to dealers may be changed from time to time.

Only the agents or underwriters named in each prospectus supplement are agents or underwriters in connection with the securities being offered thereby.

We may authorize underwriters, dealers or other persons acting as our agents to solicit offers by certain institutions to purchase securities from us pursuant to delayed delivery contracts providing for payment and delivery on the date stated in each applicable prospectus supplement. Each contract will be for an amount not less than, and the aggregate amount of securities sold pursuant to such contracts shall not be less nor more than, the respective amounts stated in each applicable prospectus supplement. Institutions with whom the contracts, when authorized, may be made include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and other institutions, but shall in all cases be subject to our approval. Delayed delivery contracts will be subject only to those conditions set forth in each applicable prospectus supplement, and each prospectus supplement will set forth any commissions we pay for solicitation of these contracts.

Agents, underwriters and other third parties described above may be entitled to indemnification by us against certain civil liabilities, including liabilities under the Securities Act of 1933, or to contribution with respect to payments which the agents or underwriters may be required to make in respect thereof. Agents, underwriters and such other third parties may be customers of, engage in transactions with, or perform services for us in the ordinary course of business.

One or more firms, referred to as "remarketing firms," may also offer or sell the securities, if a prospectus supplement so indicates, in connection with a remarketing arrangement upon their purchase. Remarketing firms will act as principals for their own accounts or as our agents. These remarketing firms will offer or sell the securities in accordance with the terms of the securities. Each prospectus supplement will identify any remarketing firm and the terms of its agreement, if any, with us and will describe the remarketing firm and the terms of its agreement, if any, with us and will describe the remarketing firm and the terms of its agreement, if any, with us and will describe the remarketing firm's compensation. Remarketing firms may be deemed to be underwriters in connection with the securities they remarket. Remarketing firms may be entitled under agreements that may be entered into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act of 1933, and may be customers of, engage in transactions with or perform services for us in the ordinary course of business.

Certain underwriters may use this prospectus and any accompanying prospectus supplement for offers and sales related to market-making transactions in the securities. These underwriters may act as principal or agent in these transactions, and the sales will be made at prices related to prevailing market prices at the time of sale.

The securities may be new issues of securities and may have no established trading market. The securities may or may not be listed on a national securities exchange. Underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We can make no assurance as to the liquidity of, or the existence of trading markets for, any of our securities.

Certain persons participating in this offering may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids in accordance with rules and regulations under the Exchange Act. Overallotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

DESCRIPTION OF COMMON STOCK

We are authorized to issue 125,000,000 shares of common stock. As of June 1, 2008, we had 80,810,302 shares of common stock outstanding.

The following summary of certain provisions of our common stock does not purport to be complete. You should refer to our restated certificate of incorporation and our amended and restated by-laws, both of which are on file with the SEC as exhibits to previous SEC filings. The summary below is also qualified by provisions of applicable law.

General

Holders of common stock are entitled to one vote per share on matters on which our stockholders vote. There are no cumulative voting rights. Holders of common stock are entitled to receive dividends, if declared by our board of directors, out of funds that we may legally use to pay dividends. If we liquidate or dissolve, holders of common stock are entitled to share ratably in our assets once our debts and any liquidation preference owed to any then-outstanding preferred stockholders are paid. Our certificate of incorporation does not provide the common stock with any redemption, conversion or preemptive rights. All shares of common stock that are outstanding as of the date of this prospectus and, upon issuance and sale, all shares we are offering by this prospectus, will be fully-paid and nonassessable.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A.

Nasdaq Global Market

Our common stock is listed for quotation on the Nasdaq Global Market under the symbol "STEM."

DESCRIPTION OF PREFERRED STOCK

We are authorized to issue 1,000,000 shares of undesignated preferred stock. As of June 1, 2008, no shares of our preferred stock were outstanding. The following summary of certain provisions of our preferred stock does not purport to be complete. You should refer to our restated certificate of incorporation and our amended and restated by-laws, both of which are on file with the SEC as exhibits to previous SEC filings. The summary below is also qualified by provisions of applicable law.

Our board of directors may, without further action by our stockholders, from time to time, direct the issuance of shares of preferred stock in series and may, at the time of issuance, determine the rights, preferences and limitations of each series, including voting rights, dividend rights and redemption and liquidation preferences. Satisfaction of any dividend preferences of outstanding shares of preferred stock would reduce the amount of funds available for the payment of dividends on shares of our common stock. Holders of shares of preferred stock may be entitled to receive a preference payment in the event of any liquidation, dissolution or winding-up of our company before any payment is made to the holders of shares of our common stock. In some circumstances, the issuance of shares of preferred stock may render more difficult or tend to discourage a merger, tender offer or proxy contest, the assumption of control by a holder of a large block of our securities or the removal of incumbent management. Upon the affirmative vote of our board of directors, without stockholder approval, we may issue shares of preferred stock with voting and conversion rights which could adversely affect the holders of shares of our common stock.

If we offer a specific series of preferred stock under this prospectus, we will describe the terms of the preferred stock in the prospectus supplement for such offering and will file a copy of the certificate establishing the terms of the preferred stock with the SEC. To the extent required, this description will include:

the title and stated value;



- the number of shares offered, the liquidation preference per share and the purchase price;
- the dividend rate(s), period(s) and/or payment date(s), or method(s) of calculation for such dividends;
- whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
- the procedures for any auction and remarketing, if any;
- the provisions for a sinking fund, if any;
- the provisions for redemption, if applicable;
- any listing of the preferred stock on any securities exchange or market;
- whether the preferred stock will be convertible into our common stock, and, if applicable, the conversion price (or how it will be calculated) and conversion period;
- whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange price (or how it will be calculated) and exchange period;
- voting rights, if any, of the preferred stock;
- a discussion of any material and/or special U.S. federal income tax considerations applicable to the preferred stock;
- the relative ranking and preferences of the preferred stock as to dividend rights and rights upon liquidation, dissolution or winding up of the affairs of StemCells, Inc.; and
- any material limitations on issuance of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock as to dividend rights and rights upon liquidation, dissolution or winding up of StemCells, Inc.

The preferred stock offered by this prospectus, when issued, will not have, or be subject to, any preemptive or similar rights.

Transfer Agent and Registrar

The transfer agent and registrar for any series or class of preferred stock will be set forth in each applicable prospectus supplement.

DESCRIPTION OF WARRANTS

We may issue warrants to purchase shares of our common stock, preferred stock and/or debt securities in one or more series together with other securities or separately, as described in each applicable prospectus supplement. Below is a description of certain general terms and provisions of the warrants that we may offer. Particular terms of the warrants will be described in the applicable warrant agreements and the applicable prospectus supplement to the warrants.

The applicable prospectus supplement will contain, where applicable, the following terms of, and other information relating to, the warrants:

- the specific designation and aggregate number of, and the price at which we will issue, the warrants;
- the currency or currency units in which the offering price, if any, and the exercise price are payable;
- the designation, amount and terms of the securities purchasable upon exercise of the warrants;
- if applicable, the exercise price for shares of our common stock and the number of shares of common stock to be received upon exercise of the warrants;
- if applicable, the exercise price for shares of our preferred stock, the number of shares of preferred stock to be received upon exercise, and a description of that series of our preferred stock;

- if applicable, the exercise price for our debt securities, the amount of debt securities to be received upon exercise, and a description of that series of debt securities;
- the date on which the right to exercise the warrants will begin and the date on which that right will expire or, if you may not continuously exercise the warrants throughout that period, the specific date or dates on which you may exercise the warrants;
- whether the warrants will be issued in fully registered form or bearer form, in definitive or global form or in any combination of these forms, although, in any case, the form of a warrant included in a unit will correspond to the form of the unit and of any security included in that unit;
- any applicable material U.S. federal income tax consequences;
- the identity of the warrant agent for the warrants and of any other depositaries, execution or paying agents, transfer agents, registrars or other agents;
- the proposed listing, if any, of the warrants or any securities purchasable upon exercise of the warrants on any securities exchange;
- if applicable, the date from and after which the warrants and the common stock, preferred stock and/or debt securities will be separately transferable;
- if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;
- information with respect to book-entry procedures, if any;
- the anti-dilution provisions of the warrants, if any;
- any redemption or call provisions;
- whether the warrants are to be sold separately or with other securities as parts of units; and
- any additional terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

Transfer Agent and Registrar

The transfer agent and registrar for any warrants will be set forth in the applicable prospectus supplement.

DESCRIPTION OF DEBT SECURITIES

We will issue the debt securities offered by this prospectus and any accompanying prospectus supplement under an indenture to be entered into between us and the trustee identified in the applicable prospectus supplement. The terms of the debt securities will include those stated in the indenture and those made part of the indenture by reference to the Trust Indenture Act of 1939, as in effect on the date of the indenture. We have filed a copy of the form of indenture as an exhibit to the registration statement in which this prospectus is included. The indenture will be subject to and governed by the terms of the Trust Indenture Act of 1939.

We may offer under this prospectus up to an aggregate principal amount of \$100,000,000 in debt securities; or if debt securities are issued at a discount, or in a foreign currency, foreign currency units or composite currency, the principal amount as may be sold for an initial public offering price of up to \$100,000,000. Unless otherwise specified in the applicable prospectus supplement, the debt securities will represent direct, unsecured obligations of StemCells, Inc. and will rank equally with all of our other unsecured indebtedness.

The following statements relating to the debt securities and the indenture are summaries, qualified in their entirety to the detailed provisions of the indenture.



General

We may issue the debt securities in one or more series with the same or various maturities, at par, at a premium, or at a discount. We will describe the particular terms of each series of debt securities in a prospectus supplement relating to that series, which we will file with the SEC.

The prospectus supplement will set forth, to the extent required, the following terms of the debt securities in respect of which the prospectus supplement is delivered:

- the title of the series;
- the aggregate principal amount;
- the issue price or prices, expressed as a percentage of the aggregate principal amount of the debt securities;
- any limit on the aggregate principal amount;
- the date or dates on which principal is payable;
- the interest rate or rates (which may be fixed or variable) or, if applicable, the method used to determine such rate or rates;
- the date or dates from which interest, if any, will be payable and any regular record date for the interest payable;
- the place or places where principal and, if applicable, premium and interest, is payable;
- the terms and conditions upon which we may, or the holders may require us to, redeem or repurchase the debt securities;
- the denominations in which such debt securities may be issuable, if other than denominations of \$1,000 or any integral multiple of that number;
- whether the debt securities are to be issuable in the form of certificated debt securities (as described below) or global debt securities (as described below);
- the portion of principal amount that will be payable upon declaration of acceleration of the maturity date if other than the principal amount of the debt securities;
- the currency of denomination;
- the designation of the currency, currencies or currency units in which payment of principal and, if applicable, premium and interest, will be made;
- if payments of principal and, if applicable, premium or interest, on the debt securities are to be made in one or more currencies or currency units other than the currency of denomination, the manner in which the exchange rate with respect to such payments will be determined;
- if amounts of principal and, if applicable, premium and interest may be determined by reference to an index based on a currency or currencies or by reference to a commodity, commodity index, stock exchange index or financial index, then the manner in which such amounts will be determined;
- the provisions, if any, relating to any collateral provided for such debt securities;
- any addition to or change in the covenants and/or the acceleration provisions described in this prospectus or in the indenture;
- any events of default, if not otherwise described below under "Events of Default";
- the terms and conditions, if any, for conversion into or exchange for shares of common stock or preferred stock;
- any depositaries, interest rate calculation agents, exchange rate calculation agents or other agents; and

the terms and conditions, if any, upon which the debt securities shall be subordinated in right of payment to other indebtedness of StemCells, Inc.

We may issue discount debt securities that provide for an amount less than the stated principal amount to be due and payable upon acceleration of the maturity of such debt securities in accordance with the terms of the indenture. We may also issue debt securities in bearer form, with or without coupons. If we issue discount debt securities or debt securities in bearer form, we will describe material U.S. federal income tax considerations and other material special considerations which apply to these debt securities in the applicable prospectus supplement.

We may issue debt securities denominated in or payable in a foreign currency or currencies or a foreign currency unit or units. If we do, we will describe the restrictions, elections, and general tax considerations relating to the debt securities and the foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement.

Exchange and/or Conversion Rights

We may issue debt securities which can be exchanged for or converted into shares of common stock or preferred stock. If we do, we will describe the terms of exchange or conversion in the prospectus supplement relating to these debt securities.

Transfer and Exchange

We may issue debt securities that will be represented by either:

- "book-entry securities," which means that there will be one or more global securities registered in the name of a depositary or a nominee of a depositary; or
- "certificated securities," which means that they will be represented by a certificate issued in definitive registered form.

We will specify in the prospectus supplement applicable to a particular offering whether the debt securities offered will be book-entry or certificated securities.

Certificated Debt Securities

If you hold certificated debt securities, you may transfer or exchange such debt securities at the trustee's office or at the paying agent's office or agency in accordance with the terms of the indenture. You will not be charged a service charge for any transfer or exchange of certificated debt securities but may be required to pay an amount sufficient to cover any tax or other governmental charge payable in connection with such transfer or exchange.

You may effect the transfer of certificated debt securities and of the right to receive the principal of, premium, and/or interest, if any, on the certificated debt securities only by surrendering the certificate representing the certificated debt securities and having us or the trustee issue a new certificate to the new holder.

Global Securities

If we decide to issue debt securities in the form of one or more global securities, then we will register the global securities in the name of the depositary for the global securities or the nominee of the depositary, and the global securities will be delivered by the trustee to the depositary for credit to the accounts of the holders of beneficial interests in the debt securities.

The prospectus supplement will describe the specific terms of the depositary arrangement for debt securities of a series that are issued in global form. None of our company, the trustee, any payment agent or the security registrar will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests in a global debt security or for maintaining, supervising or reviewing any records relating to these beneficial ownership interests.

No Protection in the Event of Change of Control

The indenture does not have any covenants or other provisions providing for a put or increased interest or otherwise that would afford holders of debt securities additional protection in the event of a recapitalization transaction, a change of control of StemCells, Inc., or a highly leveraged transaction. If we offer any covenants or provisions of this type with respect to any debt securities covered by this prospectus, we will describe them in the applicable prospectus supplement.

Covenants

Unless otherwise indicated in this prospectus or a prospectus supplement, the debt securities will not have the benefit of any covenants that limit or restrict our business or operations, the pledging of our assets or the incurrence by us of indebtedness. We will describe in the applicable prospectus supplement any material covenants in respect of a series of debt securities.

Consolidation, Merger and Sale of Assets

We have agreed in the indenture that we will not consolidate with or merge into any other person or convey, transfer, sell or lease our properties and assets substantially as an entirety to any person, unless:

- the person formed by the consolidation or into or with which we are merged or the person to which our properties and assets are conveyed, transferred, sold or leased, is a corporation organized and existing under the laws of the U.S., any state or the District of Columbia or a corporation or comparable legal entity organized under the laws of a foreign jurisdiction and, if we are not the surviving person, the surviving person has expressly assumed all of our obligations, including the payment of the principal of and, premium, if any, and interest on the debt securities and the performance of the other covenants under the indenture; and
- immediately before and immediately after giving effect to the transaction, no event of default, and no event which, after notice or lapse of time or both, would become an event of default, has occurred and is continuing under the indenture.

Events of Default

Unless otherwise specified in the applicable prospectus supplement, the following events will be events of default under the indenture with respect to debt securities of any series:

- we fail to pay any principal or premium, if any, when it becomes due;
- we fail to pay any interest within 30 days after it becomes due;
- we fail to observe or perform any other covenant in the debt securities or the indenture for 60 days after written notice specifying the failure from the trustee or the holders of not less than 25% in aggregate principal amount of the outstanding debt securities of that series; and
- certain events involving bankruptcy, insolvency or reorganization of StemCells, Inc. or any of our significant subsidiaries.

The trustee may withhold notice to the holders of the debt securities of any series of any default, except in payment of principal of or premium, if any, or interest on the debt securities of a series, if the trustee considers it to be in the best interest of the holders of the debt securities of that series to do so.

If an event of default (other than an event of default resulting from certain events of bankruptcy, insolvency or reorganization) occurs, and is continuing, then the trustee or the holders of not less than 25% in aggregate principal amount of the outstanding debt securities of any series may accelerate the maturity of the debt securities. If this happens, the entire principal amount, plus the premium, if any, of all the outstanding debt securities of the affected series plus accrued interest to the date of acceleration will be immediately due and payable. At any time after the acceleration, but before a judgment or decree based on such acceleration is obtained by the trustee, the holders of a

majority in aggregate principal amount of outstanding debt securities of such series may rescind and annul such acceleration if:

- all events of default (other than nonpayment of accelerated principal, premium or interest) have been cured or waived;
- all lawful interest on overdue interest and overdue principal has been paid; and
- the rescission would not conflict with any judgment or decree.

In addition, if the acceleration occurs at any time when we have outstanding indebtedness which is senior to the debt securities, the payment of the principal amount of outstanding debt securities may be subordinated in right of payment to the prior payment of any amounts due under the senior indebtedness, in which case the holders of debt securities will be entitled to payment under the terms prescribed in the instruments evidencing the senior indebtedness and the indenture.

If an event of default resulting from certain events of bankruptcy, insolvency or reorganization occurs, the principal, premium and interest amount with respect to all of the debt securities of any series will be due and payable immediately without any declaration or other act on the part of the trustee or the holders of the debt securities of that series.

The holders of a majority in principal amount of the outstanding debt securities of a series will have the right to waive any existing default or compliance with any provision of the indenture or the debt securities of that series and to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, subject to certain limitations specified in the indenture.

No holder of any debt security of a series will have any right to institute any proceeding with respect to the indenture or for any remedy under the indenture, unless:

- the holder gives to the trustee written notice of a continuing event of default;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of the affected series make a written request and offer reasonable indemnity to the trustee to institute a proceeding as trustee;
- the trustee fails to institute a proceeding within 60 days after such request; and
- the holders of a majority in aggregate principal amount of the outstanding debt securities of the affected series do not give the trustee a direction inconsistent with such request during such 60-day period.

These limitations do not, however, apply to a suit instituted for payment on debt securities of any series on or after the due dates expressed in the debt securities.

We will periodically deliver certificates to the trustee regarding our compliance with our obligations under the indenture.

Modification and Waiver

From time to time, we and the trustee may, without the consent of holders of the debt securities of one or more series, amend the indenture or the debt securities of one or more series, or supplement the indenture, for certain specified purposes, including:

- to provide that the surviving entity following a change of control of StemCells, Inc. permitted under the indenture will assume all of our obligations under the indenture and debt securities;
- to provide for certificated debt securities in addition to uncertificated debt securities;
- to comply with any requirements of the SEC under the Trust Indenture Act of 1939;

- to provide for the issuance of and establish the form and terms and conditions of debt securities of any series as permitted by the indenture;
- to cure any ambiguity, defect or inconsistency, or make any other change that does not materially and adversely affect the rights of any holder; and
- to appoint a successor trustee under the indenture with respect to one or more series.

From time to time we and the trustee may, with the consent of holders of at least a majority in principal amount of an outstanding series of debt securities, amend or supplement the indenture or the debt securities of such series, or waive compliance in a particular instance by us with any provision of the indenture or such debt securities. We may not, however, without the consent of each holder affected by such action, modify or supplement the indenture or the debt securities or waive compliance in order to:

- reduce the amount of debt securities whose holders must consent to an amendment, supplement, or waiver to the indenture or such debt security;
- reduce the rate of or change the time for payment of interest or reduce amount of or postpone the date for payment of sinking fund or analogous obligations;
- reduce the principal of or change the stated maturity of the debt securities;
- make any debt security payable in money other than that stated in the debt security;
- change the amount or time of any payment required or reduce the premium payable upon any redemption, or change the time before which no such redemption may be made;
- waive a default in the payment of the principal of, premium, if any, or interest on the debt securities or a redemption payment;
- waive a redemption payment with respect to any debt securities or change any provision with respect to redemption of debt securities; or
- take any other action otherwise prohibited by the indenture to be taken without the consent of each holder affected by the action.

Defeasance of Debt Securities and Certain Covenants in Certain Circumstances

The indenture permits us, at any time, to elect to discharge our obligations with respect to one or more series of debt securities by following certain procedures described in the indenture. These procedures will allow us either:

- to defease and be discharged from any and all of our obligations with respect to any debt securities except for the following obligations (which discharge is referred to as "legal defeasance"):
 - (1) to register the transfer or exchange of such debt securities;
 - (2) to replace temporary or mutilated, destroyed, lost or stolen debt securities;
 - (3) to compensate and indemnify the trustee; or
 - (4) to maintain an office or agency in respect of the debt securities and to hold monies for payment in trust; or
- to be released from our obligations with respect to the debt securities under certain covenants contained in the indenture, as well as any additional covenants which may be contained in the applicable supplemental indenture (which release is referred to as "covenant defeasance").

In order to exercise either defeasance option, we must deposit with the trustee or other qualifying trustee, in trust for that purpose:

money;

- U.S. Government Obligations (as described below) or Foreign Government Obligations (as described below) which through the scheduled payment of principal and interest in accordance with their terms will provide money; or
- a combination of money and/or U.S. Government Obligations and/or Foreign Government Obligations sufficient, in the written opinion of a nationally-recognized firm of independent accountants, to provide money;

which in each case specified above, provides a sufficient amount to pay the principal of, premium, if any, and interest, if any, on the debt securities of the series, on the scheduled due dates or on a selected date of redemption in accordance with the terms of the indenture.

In addition, defeasance may be effected only if, among other things:

- in the case of either legal or covenant defeasance, we deliver to the trustee an opinion of counsel, as specified in the indenture, stating that as a result
 of the defeasance neither the trust nor the trustee will be required to register as an investment company under the Investment Company Act of 1940;
- in the case of legal defeasance, we deliver to the trustee an opinion of counsel stating that we have received from, or there has been published by, the
 Internal Revenue Service a ruling to the effect that, or there has been a change in any applicable federal income tax law with the effect that (and the
 opinion shall confirm that), the holders of outstanding debt securities will not recognize income, gain or loss for U.S. federal income tax purposes
 solely as a result of such legal defeasance and will be subject to U.S. federal income tax on the same amounts, in the same manner, including as a
 result of prepayment, and at the same times as would have been the case if legal defeasance had not occurred;
- in the case of covenant defeasance, we deliver to the trustee an opinion of counsel to the effect that the holders of the outstanding debt securities will
 not recognize income, gain or loss for U.S. federal income tax purposes as a result of covenant defeasance and will be subject to U.S. federal income
 tax on the same amounts, in the same manner and at the same times as would have been the case if covenant defeasance had not occurred; and
- certain other conditions described in the indenture are satisfied.

If we fail to comply with our remaining obligations under the indenture and applicable supplemental indenture after a covenant defeasance of the indenture and applicable supplemental indenture, and the debt securities are declared due and payable because of the occurrence of any undefeased event of default, the amount of money and/or U.S. Government Obligations and/or Foreign Government Obligations on deposit with the trustee could be insufficient to pay amounts due under the debt securities of the affected series at the time of acceleration. We will, however, remain liable in respect of these payments.

The term "U.S. Government Obligations" as used in the above discussion means securities which are direct obligations of or non-callable obligations guaranteed by the United States of America for the payment of which obligation or guarantee the full faith and credit of the United States of America is pledged.

The term "Foreign Government Obligations" as used in the above discussion means, with respect to debt securities of any series that are denominated in a currency other than U.S. dollars (1) direct obligations of the government that issued or caused to be issued such currency for the payment of which obligations its full faith and credit is pledged or (2) obligations of a person controlled or supervised by or acting as an agent or instrumentality of such government the timely payment of which is unconditionally guaranteed as a full faith and credit obligation by that government, which in either case under clauses (1) or (2), are not callable or redeemable at the option of the issuer.

Regarding the Trustee

We will identify the trustee with respect to any series of debt securities in the prospectus supplement relating to the applicable debt securities. You should note that if the trustee becomes a creditor of StemCells, Inc., the indenture and the Trust Indenture Act of 1939 limit the rights of the trustee to obtain payment of claims in certain cases, or to

realize on certain property received in respect of any such claim, as security or otherwise. The trustee and its affiliates may engage in, and will be permitted to continue to engage in, other transactions with us and our affiliates. If, however, the trustee acquires any "conflicting interest" within the meaning of the Trust Indenture Act of 1939, it must eliminate such conflict or resign.

The holders of a majority in principal amount of the then outstanding debt securities of any series may direct the time, method and place of conducting any proceeding for exercising any remedy available to the trustee. If an event of default occurs and is continuing, the trustee, in the exercise of its rights and powers, must use the degree of care and skill of a prudent person in the conduct of his or her own affairs. Subject to that provision, the trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request of any of the holders of the debt securities, unless they have offered to the trustee reasonable indemnity or security.

WHERE YOU CAN FIND MORE INFORMATION

We have filed a registration statement on Form S-3 with the SEC for the stock we are offering by this prospectus. This prospectus does not include all of the information contained in the registration statement. You should refer to the registration statement and its exhibits for additional information.

We are required to file annual and quarterly reports, special reports, proxy statements, and other information with the SEC. We make these documents publicly available, free of charge, on our website at www.stemcellsinc.com as soon as reasonably practicable after filing such documents with the SEC. You can read our SEC filings, including the registration statement, on the SEC's website at http://www.sec.gov. You also may read and copy any document we file with the SEC at its public reference facility at:

Public Reference Room 100 F Street N.E. Washington, DC 20549.

Please call the SEC at 1-800-732-0330 for further information on the operation of the public reference facilities.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" into this prospectus the information we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus, and information in documents that we file later with the SEC will automatically update and supersede information in this prospectus. We incorporate by reference the documents listed below into this prospectus, and any future filings made by us with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act until we close this offering, including all filings made after the date of the initial registration statement and prior to the effectiveness of the registration statement. We hereby incorporate by reference the following documents:

- Our Annual Report on Form 10-K (as amended) for the year ended December 31, 2007 (File No. 000-19871);
- Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2008 (File No. 000-19871);
- Our Current Reports on Form 8-K filed on March 5, 2008, March 21, 2008 and May 13, 2008 (File No. 000-19871);
- The description of our common stock contained in our registration statements on Form 8-A (File No. 000-19871) filed August 3, 1998, under the Exchange Act, including any amendment or report filed for the purpose of updating such description; and
- Our definitive Proxy Statement on Form DEF 14A filed on June 9, 2008 (File No. 000-19871).

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

StemCells, Inc. 3155 Porter Drive Palo Alto, Ca 94304 Attention: Investor Relations Phone: (650) 475-3100 email: irpr@stemcellsinc.com

Copies of these filings are also available, without charge, on our Internet website at www.stemcellsinc.com as soon as reasonably practicable after they are filed electronically with the SEC. The information contained on our website is not a part of this prospectus.

LEGAL MATTERS

The validity of the issuance of the securities offered hereby will be passed upon for us by Ropes & Gray LLP, Boston, Massachusetts. The validity of any securities will be passed upon for any underwriters or agents by counsel that we will name in the applicable prospectus supplement.

EXPERTS

The consolidated financial statements and management's assessment of the effectiveness of internal control over financial reporting have been incorporated by reference herein and in the registration statement in reliance upon the reports of Grant Thornton LLP, independent registered public accountants (which reports expressed an unqualified opinion and contain an explanatory paragraph relating to the adoption of Statement of Financial Accounting Standards No. 123(R), *Share-Based Payment*) upon the authority of said firm as experts in accounting and auditing.

\$100,000,000

StemCells, Inc.

Common Stock Preferred Stock Warrants Debt Securities PROSPECTUS

, 2008

We have not authorized any dealer, salesperson or other person to give any information or represent anything not contained in this prospectus. You must not rely on any unauthorized information. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus does not offer to sell any shares in any jurisdiction where it is unlawful. Neither the delivery of this prospectus, nor any sale made hereunder, shall create any implication that the information in this prospectus is correct after the date hereof.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other expenses of Issuance and Distribution.

The following table sets forth the various expenses in connection with the sale and distribution of the securities being registered. All amounts shown are estimates, except the SEC registration fee. The registrant has agreed to pay these costs and expenses.

Securities and Exchange Commission registration fee	\$	0
Printing and engraving expenses	\$	1,000*
Legal fees and expenses	\$	50,000*
Accounting fees and expenses	\$	10,000*
Blue sky fees and expenses	\$	25,000*
Transfer Agent and Registrar fees	\$	5,000*
Trust fees and expenses	\$	10,000*
Miscellaneous	\$	1,000*
Total	\$1	102,000*

* Estimated.

Item 15. Indemnification of Directors and Officers.

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

Section 102(b)(7) of the DGCL permits a corporation to include in its certificate of incorporation a provision eliminating or limiting the personal liability of a director to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, provided that such provision shall not eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL (relating to unlawful payment of dividends and unlawful stock purchase and redemption) or (iv) for any transaction from which the director derived an improper personal benefit.

The Company's restated certificate of incorporation provides that the Company's Directors shall not be liable to the Company or its stockholders for monetary damages for breach of fiduciary duty as a director except to the extent

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that exculpation from liabilities is not permitted under the DGCL as in effect at the time such liability is determined. The Company's restated certificate of incorporation further provides that the Company shall indemnify its directors and officers to the fullest extent permitted by the DGCL.

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

Item 16. Exhibits.

See Exhibit Index beginning on page II-5 of this registration statement.

Item 17. 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;

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

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

Provided, however, that the undertakings set forth in paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) above do not apply if the registration statement is on Form S-3 or Form F-3 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statements or is contained in a form of prospectus filed pursuant to Rule 424(b) that is a part of the registration statement

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

(1) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(2) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be

deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(c) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser: (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424; (ii) any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant; (iii) the portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant or used by the undersigned registrant or the purchaser.

(d) The undersigned registrant hereby undertakes that: (i) for purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of the registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of the registration statement as of the time it was declared effective; and (ii) for the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(e) If and when applicable, the undersigned registrant, hereby undertakes to file an application for the purpose of determining the eligibility of the Trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the Commission under Section 305(b)(2) of the Act.

(f) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the 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 of 1933 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 of 1933, and will be governed by the final adjudication of such issue.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement on Form S-3 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Palo Alto, State of California, on the 24th day of June, 2008.

STEMCELLS, INC.

By: /s/ Martin M. McGlynn

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

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Martin M. McGlynn and Rodney K.B. Young, 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-3 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:

/s/ Martin M. McGlynn		
Martin M. McGlynn	President and Chief Executive Officer and Director (principal executive officer)	June 24, 2008
/s/ Rodney K.B. Young		
Rodney K.B. Young	Chief Financial Officer (principal financial officer)	June 24, 2008
/s/ George Koshy		
George Koshy	Chief Accounting Officer (principal accounting officer)	June 24, 2008
/s/ Eric Bjerkholt		
Eric Bjerkholt	Director	June 24, 2008
/s/ Ricardo B. Levy, Ph.D.		
Ricardo B. Levy, Ph.D.	Director	June 17, 2008
/s/ Desmond H. O'Connell, Jr.		
Desmond H. O'Connell, Jr.	Director	June 17, 2008
/s/ Roger M. Perlmutter, M.D.		
Roger M. Perlmutter, M.D.	Director	June 24, 2008
/s/ John J. Schwartz, Ph.D.		
John J. Schwartz, Ph.D.	Director, Chairman of the Board	June 24, 2008
/s/ Irving L. Weissman, M.D.		
Irving L. Weissman, M.D.	Director	June 24, 2008
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EXHIBIT INDEX

The following is a list of exhibits filed as part of this registration statement.

Exhibit	Description
1.1*	Form of underwriting agreement
4.1*	Form of Common Stock Warrant Agreement and Warrant Certificate
4.2*	Form of Preferred Stock Warrant Agreement and Warrant Certificate
4.3*	Form of Debt Securities Warrant Agreement and Warrant Certificate
4.4**	Form of Indenture
5.1**	Opinion of Ropes & Gray, LLP
12.1**	Statement re: Computation of Ratios
23.1	Consent of Ropes & Gray LLP (included in Exhibit 5.1)
23.2**	Consent of Grant Thornton LLP
24.1	Power of attorney—included on the signature page
25.1***	Statement of Eligibility of Trustee Under Debt Indenture

* To be filed, if necessary, subsequent to the effectiveness of this registration statement by an amendment to this registration statement or incorporated by reference pursuant to a Current Report on Form 8-K in connection with an offering of securities.

** Filed herewith.

*** To be filed separately pursuant to Section 305(b)(2) of the Trust Indenture Act of 1939.

Exhibit 4.4

STEMCELLS, INC.

and

, as Trustee

INDENTURE

Dated as of _____, ____

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CROSS-REFERENCE TABLE

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310(a)(1)	7.10
(a)(2)	7.10
(a)(3)	N/A
(a)(4)	N/A
(a)(5)	7.10
(b)	7.8; 7.10; 10.4
(b)(1)	7.10
(b)(9)	7.10
311(a)	7.11
(b)	7.11
312(a)	2.6
(b)	10.3
(c)	10.3
313(a)	7.6
(b)(1)	7.6
(b)(2)	7.6
(c)	7.6; 10.4
(d)	7.6
314(a)	4.2; 4.4; 10.4
(b)	N/A
(c)(1)	10.4; 10.5
(c)(2)	10.4; 10.5
(c)(3)	N/A
(d)	N/A
(e)	10.5
(e) (f)	N/A
315(a)	7.1, 7.2
(b)	7.5; 10.2
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TIA SECTION	INDENTURE SI
(C)	7.1
(d)	6.5; 7.1; 7.2
(e)	6.11
316(a)(last sentence)	2.10
(a)(1)(A)	6.5
(a)(1)(B)	6.4
(a)(2)	8.2
(b)	6.7
(c)	8.4
317(a)(1)	6.8
(a)(2)	6.9
(b)	2.5; 7.12
318(a)	10.1

INDENTURE SECTION

N/A means not applicable

Note: This Cross-Reference Table shall not, for any purpose, be deemed to be a part of the Indenture.

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RECITALS OF THE COMPANY

The Company has duly authorized the execution and delivery of this Indenture to provide for the issuance from time to time of its debentures, notes or other evidences of indebtedness to be issued in one or more series (the "Securities"), as herein provided, up to such principal amount as may from time to time be authorized in or pursuant to one or more resolutions of the Board of Directors or by supplemental indenture.

All things necessary to make this Indenture a valid agreement of the Company in accordance with its terms have been done, and the execution and delivery thereof have been in all respects duly authorized by the parties hereto.

NOW, THEREFORE, THIS INDENTURE WITNESSETH:

For and in consideration of the premises and the purchase of the Securities by the Holders thereof, it is mutually agreed, for the equal and proportionate benefit of all Holders of the Securities of a Series thereof, as follows:

ARTICLE 1

DEFINITIONS AND INCORPORATION BY REFERENCE

1.1. DEFINITIONS.

"Affiliate" of any specified Person means any other Person which directly or indirectly through one or more intermediaries controls, or is controlled by, or is under common control with, such specified Person. For the purposes of this definition, "control" (including, with correlative meanings, the terms "controlling," "controlled by," and "under common control with"), as used with respect to any Person, means the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of such Person, whether through the ownership of voting securities, by agreement or otherwise.

"Agent" means any Registrar, Paying Agent, co-registrar or agent for service of notices and demands.

"Board of Directors" means the Board of Directors of the Company or any committee duly authorized to act therefor.

"Board Resolution" means a copy of a resolution certified pursuant to an Officers' Certificate to have been duly adopted by the Board of Directors of the Company and to be in full force and effect on the date of such certification and delivered to the Trustee.

"Capital Stock" means, with respect to any Person, any and all shares or other equivalents

(however designated) of capital stock, partnership interests or any other participation, right or other interest in the nature of an equity interest in such Person or any option, warrant or other security convertible into any of the foregoing.

"Company" means the party named as such in the first paragraph of this Indenture until a successor replaces such party pursuant to Article 5 of this Indenture and thereafter means the successor and any other primary obligor on the Securities.

"Company Order" means a written order signed in the name of the Company by two Officers, one of whom must be its Chief Executive Officer or its Chief Financial Officer.

"Company Request" means any written request signed in the name of the Company by its Chief Executive Officer, its President, any Vice President, its Chief Financial Officer or its Treasurer and attested to by the Secretary or any Assistant Secretary of the Company.

"Corporate Trust Office" means the office of the Trustee at which at any particular time its corporate trust business shall be principally administered.

"Default" means any event that is, or with the passing of time or giving of notice or both would be, an Event of Default.

"Depository" means, with respect to the Securities of any Series issuable or issued in whole or in part in the form of one or more Global Securities, the Person designated as Depository for such Series by the Company, which Depository shall be a clearing agency registered under the Exchange Act, until a successor Depository shall have become such pursuant to the applicable provisions of this Indenture, and thereafter "Depository" shall mean each Person who is then a Depository hereunder, and if at any time there is more than one such Person, such Persons.

"Dollars" means the currency of the United States of America.

"Euro" means the single currency of participating member states of the economic and monetary union as contemplated in the Treaty on European Union.

"Exchange Act" means the Securities Exchange Act of 1934, as amended.

"Foreign Currency" means any currency or currency unit issued by a government other than the government of the United States of America.

"Foreign Government Obligations" means with respect to Securities of any Series that are denominated in a Foreign Currency, (i) direct obligations of the government that issued or caused to be issued such currency for the payment of which obligations its full faith and credit is pledged or (ii) obligations of a Person controlled or supervised by or acting as an agency or instrumentality of such government the timely payment of which is unconditionally guaranteed as a full faith and credit obligation by such government, which, in either case under clauses (i) or (ii), are not callable or redeemable at the option of the issuer thereof.

"GAAP" means generally accepted accounting principles consistently applied as in effect

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in the United States from time to time.

"Global Security" or "Global Securities" means a Security or Securities, as the case may be, in the form established pursuant to Section 2.2, evidencing all or part of a Series of Securities issued to the Depository for such Series or its nominee, and registered in the name of such Depository or nominee, and bearing the legend set forth in Section 2.15(c) (or such legend as may be specified as contemplated by Section 2.2 for such Securities).

"Holder" or "Securityholder" means the Person in whose name a Security is registered on the Registrar's books.

"Indebtedness" means (without duplication), with respect to any Person, any indebtedness at any time outstanding, secured or unsecured, contingent or otherwise, which is for borrowed money (whether or not the recourse of the lender is to the whole of the assets of such Person or only to a portion thereof), or evidenced by bonds, notes, debentures or similar instruments or representing the balance deferred and unpaid of the purchase price of any property (excluding any balances that constitute accounts payable or trade payables, and other accrued liabilities arising in the ordinary course of business) if and to the extent any of the foregoing indebtedness would appear as a liability upon a balance sheet of such Person prepared in accordance with GAAP.

"Indenture" means this Indenture as amended, restated or supplemented from time to time.

"Interest Payment Date" when used with respect to any Security, means the Stated Maturity of an installment of interest on such Security.

"Lien" means, with respect to any property or assets of any Person, any mortgage or deed of trust, pledge, hypothecation, assignment, deposit arrangement, security interest, lien, charge, easement, encumbrance, preference, priority, or other security agreement or preferential arrangement of any kind or nature whatsoever on or with respect to such property or assets (including, without limitation, any capitalized lease obligation, conditional sales, or other title retention agreement having substantially the same economic effect as any of the foregoing).

"Maturity" when used with respect to any Security, means the date on which the principal of such Security or an installment of principal becomes due and payable as therein or herein provided, whether at the Stated Maturity or by declaration of acceleration, call for redemption, notice of option to elect payment or otherwise.

"Officer" means the Chief Executive Officer, the President, any Vice President, the Chief Financial Officer, the Treasurer or the Secretary of the Company or any other officer designated by the Board of Directors, as the case may be.

"Officers' Certificate" means, with respect to any Person, a certificate signed by the Chairman, Chief Executive Officer, the President or any Senior or Executive Vice President, and the Chief Financial Officer or any Treasurer of such Person that shall comply with applicable provisions of this Indenture.

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"Opinion of Counsel" means a written opinion from legal counsel which counsel is reasonably acceptable to the Trustee. The counsel may be an employee of or counsel to the Company.

"Person" means any individual, corporation, limited liability company, partnership, joint venture, association, joint-stock company, trust, unincorporated organization or government (including any agency or political subdivision thereof).

"Redemption Date," when used with respect to any Security of a Series to be redeemed, means the date fixed for such redemption pursuant to this Indenture.

"Responsible Officer" when used with respect to the Trustee, means any officer within the corporate trust department or division of the Trustee (or any successor group of the Trustee) or any other officer of the Trustee customarily performing functions similar to those performed by any of the above designated officers and also means, with respect to a particular corporate trust matter, any other officer to whom such matter is referred because of his knowledge of and familiarity with the particular subject.

"SEC" means the United States Securities and Exchange Commission as constituted from time to time or any successor performing substantially the same functions.

"Securities" means the securities that are issued under this Indenture, as amended or supplemented from time to time pursuant to this Indenture.

"Securities Act" means the Securities Act of 1933, as amended.

"Series" or "Series of Securities" means each series of debentures, notes or other debt instruments of the Company created pursuant to Sections 2.1 or 2.2 hereof.

"Significant Subsidiary" means (i) any direct or indirect Subsidiary of the Company that would be a "significant subsidiary" as defined in Article 1, Rule 1-02 of Regulation S-X, promulgated pursuant to the Securities Act, as such regulation is in effect on the date hereof, or (ii) any group of direct or indirect Subsidiaries of the Company that, taken together as a group, would be a "significant subsidiary" as defined in Article 1, Rule 1-02 of Regulation S-X, promulgated pursuant to the Securities Act, as such regulation is in effect on the date hereof.

"Stated Maturity," when used with respect to any Security or any installment of principal thereof or interest thereon means, the date specified in such Security as the fixed date on which the principal of such Security or such installment of principal or interest is due and payable, and when used with respect to any other Indebtedness, means the date specified in the instrument governing such Indebtedness as the fixed date on which the principal of such Indebtedness, or any installment of interest thereon, is due and payable.

"Subsidiary" of any specified Person means any corporation, limited liability company, partnership, joint venture, association or other business entity, whether now existing or hereafter organized or acquired, (i) in the case of a corporation, of which more than 50% of the total voting power of the Capital Stock entitled (without regard to the occurrence of any contingency) to vote in the election of directors thereof is held, directly or indirectly by such Person or any of

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its Subsidiaries; or (ii) in the case of a partnership, joint venture, association or other business entity, with respect to which such Person or any of its Subsidiaries has the power to direct or cause the direction of the management and policies of such entity by contract or otherwise or if in accordance with GAAP such entity is consolidated with such Person for financial statement purposes.

"TIA" means the Trust Indenture Act of 1939 (15 U.S. Code Section 77aaa-77bbbb) as in effect on the date of this Indenture (except as provided in Section 8.3 hereof).

"Trustee" means the party named as such in this Indenture until a successor replaces it pursuant to this Indenture and thereafter means the successor, and if at any time there is more than one such Person, "Trustee" as used with respect to the Securities of any Series shall mean the Trustee with respect to Securities of that Series.

"U.S. Government Obligations" means direct non-callable obligations of, or non-callable obligations guaranteed by, the United States of America for the payment of which obligation or guarantee the full faith and credit of the United States of America is pledged.

1.2. OTHER DEFINITIONS.

The definitions of the following terms may be found in the sections indicated as follows:

TERM	DEFINED IN SECTION	
"Bankruptcy Law"	6.1	
"Business Day"	10.7	
"Covenant Defeasance"	9.3	
"Custodian"	6.1	
"Event of Default"	6.1	
"Journal"	10.15	
"Judgment Currency"	10.16	
"Legal Defeasance"	9.2	
"Legal Holiday"	10.7	
"Market Exchange Rate"	10.15	
"New York Banking Day"	10.16	
"New York Paying Agent"	2.4	
"Paying Agent"	2.4	
"Place of Payment"	10.7	
"Registrar"	2.4	

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TERM	DEFINED IN SECTION
"Required Currency"	10.16
"Service Agent"	2.4

1.3. INCORPORATION BY REFERENCE OF TRUST INDENTURE ACT.

Whenever this Indenture refers to a provision of the TIA, the portion of such provision required to be incorporated herein in order for this Indenture to be qualified under the TIA is incorporated by reference in and made a part of this Indenture. The following TIA terms used in this Indenture have the following meanings:

"Commission" means the SEC.

"indenture securities" means the Securities.

"indenture securityholder" means a Holder or Securityholder.

"indenture to be qualified" means this Indenture.

"indenture trustee" or "institutional trustee" means the Trustee.

"obligor on the indenture securities" means the Company.

All other terms used in this Indenture that are defined by the TIA, defined in the TIA by reference to another statute or defined by SEC rule have the meanings therein assigned to them.

1.4. RULES OF CONSTRUCTION.

Unless the context otherwise requires:

(1) a term has the meaning assigned to it herein, whether defined expressly or by reference;

(2) an accounting term not otherwise defined has the meaning assigned to it in accordance with GAAP;

(3) "or" is not exclusive;

(4) words in the singular include the plural, and in the plural include the singular;

(5) words used herein implying any gender shall apply to each gender; and

(6) the words "herein", "hereof" and "hereunder" and other words of similar import refer to this Indenture as a whole and not to any particular Article, Section or other subdivision.

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ARTICLE 2

THE SECURITIES

2.1. ISSUABLE IN SERIES.

The aggregate principal amount of Securities that may be authenticated and delivered under this Indenture is \$100,000,000. The Securities may be issued in one or more Series. All Securities of a Series shall be identical except as may be set forth in a Board Resolution, a supplemental indenture or an Officers' Certificate detailing the adoption of the terms thereof pursuant to the authority granted under a Board Resolution. In the case of Securities of a Series to be issued from time to time, the Board Resolution, Officers' Certificate or supplemental indenture may provide for the method by which specified terms (such as interest rate, Stated Maturity, record date or date from which interest shall accrue) are to be determined. Securities may differ between Series in respect of any matters, provided that all Series of Securities shall be equally and ratably entitled to the benefits of the Indenture.

2.2. ESTABLISHMENT OF TERMS OF SERIES OF SECURITIES.

At or prior to the issuance of any Securities within a Series, the following shall be established (as to the Series generally, in the case of Subsection 2.2(1) and either as to such Securities within the Series or as to the Series generally in the case of Subsections 2.2(2) through 2.2(24)) by a Board Resolution, a supplemental indenture or an Officers' Certificate, in each case, pursuant to authority granted under a Board Resolution:

(1) the title of the Series (which shall distinguish the Securities of that particular Series from the Securities of any other Series);

(2) any limit upon the aggregate principal amount of the Securities of the Series which may be authenticated and delivered under this Indenture (except for Securities authenticated and delivered upon registration of transfer of, or in exchange for, or in lieu of, other Securities of the Series pursuant to Section 2.7, 2.8, 2.11, 3.6 or 8.5);

(3) the price or prices (expressed as a percentage of the principal amount thereof) at which the Securities of the Series will be issued;

(4) the date or dates on which the principal of the Securities of the Series is payable;

(5) the rate or rates (which may be fixed or variable) per annum or, if applicable, the method used to determine such rate or rates (including, but not limited to, any commodity, commodity index, stock exchange index or financial index) at which the Securities of the Series shall bear interest, if any, the date or dates from which such interest, if any, shall accrue, the date or dates on which such interest, if any, shall commence and be payable and any regular record date for the interest payable on any Interest Payment Date;

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(6) the place or places where the principal of and interest and premium, if any, on the Securities of the Series shall be payable, or the method of such payment, if by wire transfer, mail or other means;

(7) if applicable, the period or periods within which, the price or prices at which and the terms and conditions upon which the Securities of the Series may be redeemed, in whole or in part, at the option of the Company;

(8) the obligation, if any, of the Company to redeem or purchase the Securities of the Series pursuant to any sinking fund or analogous provisions or at the option of a Holder thereof and the period or periods within which, the price or prices at which and the terms and conditions upon which Securities of the Series shall be redeemed or purchased, in whole or in part, pursuant to such obligation;

(9) the dates, if any, on which and the price or prices at which the Securities of the Series will be repurchased by the Company at the option of the Holders thereof and other detailed terms and provisions of such repurchase obligations;

(10) if other than denominations of \$1,000 and any integral multiple thereof, the denominations in which the Securities of the Series shall be issuable;

(11) the forms of the Securities of the Series in bearer (if to be issued outside of the United States) or fully registered form (and, if in fully registered form, whether the Securities will be issuable as Global Securities);

(12) if other than the principal amount thereof, the portion of the principal amount of the Securities of the Series that shall be payable upon declaration of acceleration of the Maturity thereof pursuant to Section 6.2;

(13) the currency of denomination of the Securities of the Series, which may be Dollars or any Foreign Currency, including, but not limited to, the Euro, and if such currency of denomination is a composite currency other than the Euro, the agency or organization, if any, responsible for overseeing such composite currency;

(14) the designation of the currency, currencies or currency units in which payment of the principal of and interest and premium, if any, on the Securities of the Series will be made;

(15) if payments of principal of or interest or premium, if any, on the Securities of the Series are to be made in one or more currencies or currency units other than that or those in which such Securities are denominated, the manner in which the exchange rate with respect to such payments will be determined;

(16) the manner in which the amounts of payment of principal of or interest and premium, if any, on the Securities of the Series will be determined, if such amounts may be determined by reference to an index based on a currency or currencies or by reference to a commodity, commodity index, stock exchange index or financial index;

(17) the provisions, if any, relating to any collateral provided for the Securities of the Series;

(18) any addition to or change in the covenants set forth in Articles 4 or 5 that applies to Securities of the Series;

(19) any addition to or change in the Events of Default which applies to any Securities of the Series and any change in the right of the Trustee or the requisite Holders of such Securities to declare the principal amount thereof due and payable pursuant to Section 6.2;

(20) the terms and conditions, if any, for conversion of the Securities into or exchange of the Securities for shares of common stock or preferred stock of the Company that apply to Securities of the Series;

(21) any depositories, interest rate calculation agents, exchange rate calculation agents or other agents with respect to Securities of such Series if other than those appointed herein;

(22) the terms and conditions, if any, upon which the Securities shall be subordinated in right of payment to other Indebtedness of the Company;

(23) if applicable, that the Securities of the Series, in whole or any specified part, shall be defeasible pursuant to Article 9; and

(24) any other terms of the Securities of the Series (which terms shall not be inconsistent with the provisions of this Indenture, except as permitted by Section 8.1, but which may modify or delete any provision of this Indenture insofar as it applies to such Series).

All Securities of any one Series need not be issued at the same time and may be issued from time to time, consistent with the terms of this Indenture, if so provided by or pursuant to the Board Resolution, supplemental indenture or Officers' Certificate referred to above, and the authorized principal amount of any Series may not be increased to provide for issuances of additional Securities of such Series, unless otherwise provided in such Board Resolution, supplemental indenture or Officers' Certificate.

2.3. EXECUTION AND AUTHENTICATION.

The Securities shall be executed on behalf of the Company by two Officers of the Company or an Officer and an Assistant Secretary of the Company. Each such signature may be either manual or facsimile. The Company's seal may be impressed, affixed, imprinted or reproduced on the Securities and may be in facsimile form.

If an Officer whose signature is on a Security no longer holds that office at the time the Security is authenticated, the Security shall nevertheless be valid.

A Security shall not be valid until authenticated by the manual signature of the Trustee or an authenticating agent. The signature shall be conclusive evidence that the Security has been authenticated under this Indenture. The Trustee shall at any time, and from time to time,

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authenticate Securities for original issue in the principal amount provided in the Board Resolution, supplemental indenture hereto or Officers' Certificate, upon receipt by the Trustee of a Company Order. Such Company Order may authorize authentication and delivery pursuant to oral or electronic instructions from the Company or its duly authorized agent or agents, which oral instructions shall be promptly confirmed in writing. Each Security shall be dated the date of its authentication.

The aggregate principal amount of Securities of any Series outstanding at any time may not exceed any limit upon the maximum principal amount for such Series set forth in the Board Resolution, supplemental indenture hereto or Officers' Certificate delivered pursuant to Section 2.2, except as provided in Section 2.8.

Prior to the issuance of Securities of any Series, the Trustee shall have received and (subject to Section 7.2) shall be fully protected in relying on: (a) the Board Resolution, supplemental indenture hereto or Officers' Certificate establishing the form of the Securities of that Series or of Securities within that Series and the terms of the Securities of that Series or of Securities within that Series, (b) an Officers' Certificate complying with Section 10.4, and (c) an Opinion of Counsel complying with Section 10.4.

The Trustee shall have the right to decline to authenticate and deliver any Securities of such Series: (a) if the Trustee, being advised in writing by outside counsel, determines that such action may not lawfully be taken; or (b) if the Trustee in good faith by its board of directors or trustees, executive committee or a trust committee of directors and/or vice-presidents shall reasonably determine that such action would expose the Trustee to personal liability, or cause it to have a conflict of interest with respect to Holders of any then outstanding Series of Securities.

The Trustee may appoint an authenticating agent acceptable to the Company to authenticate Securities. An authenticating agent may authenticate Securities whenever the Trustee may do so. Any appointment shall be evidenced by instrument signed by an authorized officer of the Trustee, a copy of which shall be furnished to the Company. Each reference in this Indenture to authentication by the Trustee includes authentication by such agent. An authenticating agent has the same rights as an Agent to deal with the Company or an Affiliate of the Company.

2.4. REGISTRAR AND PAYING AGENT.

The Company shall maintain in each Place of Payment for any Series of Securities (i) an office or agency where such Securities may be presented for registration of transfer or for exchange ("Registrar"), (ii) an office or agency where such Securities may be presented for payment ("Paying Agent") (PROVIDED that the Company shall at all times maintain a Paying Agent in the Borough of Manhattan, The City of New York, State of New York (the "New York Paying Agent"), and PROVIDED, FURTHER, that at the option of the Company payment of interest may be made by check mailed to the address of the Person entitled thereto as such address shall appear in the register for the Securities maintained by the Registrar, and (iii) an office or agency where notices and demands to or upon the Company in respect of the Securities and this Indenture may be served ("Service Agent"). The Registrar shall keep a register of the Securities and of their transfer and exchange. The Company may have one or more co-registrars

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and one or more additional paying agents. The Company shall give prompt written notice to the Trustee of the location, and any change in the location, of such office or agency. If at any time the Company shall fail to maintain any such required office or to furnish the Trustee with the address thereof, such presentations, surrenders, notices and demands may be made or served at the address of the Trustee as set forth in Section 10.2. If the Company acts as Paying Agent, it shall segregate the money held by it for the payment of principal of and premium, if any, and interest on the Securities and hold it as a separate trust fund. The Company may change any Paying Agent, Registrar or co-registrar without notice to any Securityholder.

The Company may also from time to time designate one or more other offices or agencies where the Securities may be presented or surrendered for any or all such purposes and may from time to time rescind such designations; PROVIDED, HOWEVER, that no such designation or rescission shall in any manner relieve the Company of its obligation to maintain an office or agency in each Place of Payment for Securities of any series for such purposes. The Company shall give prompt written notice to the Trustee of such designation or rescission and of any change in the location of any such other office or agency.

The Company shall enter into an appropriate agency agreement with any Registrar or Paying Agent not a party to this Indenture. The agreement shall implement the provisions of this Indenture that relate to such Agent. The Company shall notify the Trustee of the name and address of any such Agent. If the Company fails to maintain a Registrar or Paying Agent, or agent for service of notices and demands, or fails to give the foregoing notice, the Trustee shall act as such. The Company hereby appoints the Trustee as the initial Registrar, Paying Agent and Service Agent for each Series unless another Registrar, Paying Agent or Service Agent, as the case may be, is appointed prior to the time Securities of that Series are first issued. The Company hereby initially designates the Corporate Trust Office of the Trustee as such office of the Company. The Company further designates ______, as the New York Paying Agent, with offices at ______.

2.5. PAYING AGENT TO HOLD ASSETS IN TRUST.

The Trustee as Paying Agent shall, and the Company shall require each Paying Agent other than the Trustee to agree in writing that each Paying Agent shall hold in trust for the benefit of the Holders of any Series of Securities or the Trustee all assets held by the Paying Agent for the payment of principal of, or interest or premium (if any) on, such Series of Securities (whether such assets have been distributed to it by the Company or any other obligor on such Series of Securities), and the Company and the Paying Agent shall notify the Trustee in writing of any Default by the Company (or any other obligor on such Series of Securities) in making any such payment. The Company at any time may require a Paying Agent to distribute all assets held by it to the Trustee and account for any assets disbursed and the Trustee may at any time during the continuance of any payment default with respect to any Series of Securities, upon written request to a Paying Agent, require such Paying Agent to distribute all assets held by it to the Trustee of all assets that shall have been delivered by the Company to the Paying Agent, the Paying Agent shall have no further liability for such assets.

2.6. SECURITYHOLDER LISTS.

The Trustee shall preserve in as current a form as is reasonably practicable the most recent list available to it of the names and addresses of Securityholders of each Series of Securities. If the Trustee is not the Registrar, the Company shall furnish to the Trustee as of each regular record date for the payment of interest on the Securities of a Series and before each related Interest Payment Date, and at such other times as the Trustee may request in writing, a list in such form and as of such date as the Trustee may reasonably require of the names and addresses of Securityholders of each Series.

2.7. TRANSFER AND EXCHANGE.

When Securities of a Series are presented to the Registrar with a request to register the transfer thereof, the Registrar shall register the transfer as requested if the requirements of applicable law are met, and when such Securities of a Series are presented to the Registrar with a request to exchange them for an equal principal amount of other authorized denominations of Securities of the same Series, the Registrar shall make the exchange as requested. To permit transfers and exchanges, upon surrender of any Security for registration of transfer at the office or agency maintained pursuant to Section 2.4 hereof, the Company shall execute and the Trustee shall authenticate Securities at the Registrar's request.

If Securities are issued as Global Securities, the provisions of Section 2.15 shall apply.

All Securities issued upon any registration of transfer or exchange of Securities shall be the valid obligations of the Company, evidencing the same debt, and entitled to the same benefits under this Indenture, as the Securities surrendered upon such registration of transfer or exchange.

Every Security presented or surrendered for registration of transfer or for exchange shall (if so required by the Company or the Registrar or a co-Registrar) be duly endorsed, or be accompanied by a written instrument of transfer in form satisfactory to the Company and the Registrar or a co-Registrar, duly executed by the Holder thereof or his attorney duly authorized in writing.

Any exchange or transfer shall be without charge, except that the Company may require payment by the Holder of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation to a transfer or exchange, but this provision shall not apply to any exchange pursuant to Section 2.11, 3.6 or 8.5 hereof. The Trustee shall not be required to register transfers of Securities of any Series or to exchange Securities of any Series for a period of 15 days before the record date for selection for redemption of such Securities. The Trustee shall not be required to exchange or register transfers of Securities of any Series called or being called for redemption in whole or in part, except the unredeemed portion of such Security being redeemed in part.

2.8. REPLACEMENT SECURITIES.

If a mutilated Security is surrendered to the Trustee or if the Holder of a Security presents evidence to the satisfaction of the Company and the Trustee that the Security has been lost, destroyed or wrongfully taken, the Company shall issue and the Trustee shall authenticate a

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replacement Security of the same Series and of like tenor and principal amount and bearing a number not contemporaneously outstanding. An indemnity bond may be required by the Company or the Trustee that is sufficient in the reasonable judgment of the Company or the Trustee, as the case may be, to protect the Company, the Trustee or any Agent from any loss which any of them may suffer if a Security is replaced. The Company may charge such Holder for its outof-pocket expenses in replacing a Security, including the fees and expenses of the Trustee. Every replacement Security shall constitute an original additional obligation of the Company, whether or not the destroyed, lost or stolen Security shall be at any time enforceable by anyone, and shall be entitled to all the benefits of this Indenture equally and proportionately with any and all other Securities of that Series duly issued hereunder.

2.9. OUTSTANDING SECURITIES.

Securities outstanding at any time are all Securities authenticated by the Trustee except for those canceled by it, those delivered to it for cancellation, and those described in this Section 2.9 as not outstanding.

If a Security is replaced pursuant to Section 2.8 (other than a mutilated Security surrendered for replacement), it ceases to be outstanding until the Company and the Trustee receive proof satisfactory to each of them that the replaced Security is held by a bona fide purchaser. A mutilated Security ceases to be outstanding upon surrender of such Security and replacement thereof pursuant to Section 2.8.

If a Paying Agent holds on a Redemption Date or the Stated Maturity money sufficient to pay the principal of, premium, if any, and accrued interest on Securities payable on that date and is not prohibited from paying such money to the Holders thereof pursuant to the terms of this Indenture (PROVIDED that, if such Securities are to be redeemed, notice of such redemption has been duly given pursuant to this Indenture or provision therefor satisfactory to the Trustee has been made), then on and after that date such Securities cease to be outstanding and interest on them ceases to accrue.

A Security does not cease to be outstanding solely because the Company or an Affiliate holds the Security.

2.10. WHEN TREASURY SECURITIES DISREGARDED; DETERMINATION OF HOLDERS' ACTION.

In determining whether the Holders of the required aggregate principal amount of the Securities of any Series have concurred in any direction, waiver or consent, the Securities of any Series owned by the Company or any other obligor on such Securities or by any Affiliate of any of them shall be disregarded, except that for the purposes of determining whether the Trustee shall be protected in relying on any such direction, waiver or consent, only Securities of such Series which the Trustee actually knows are so owned shall be so disregarded. Securities of such Series so owned which have been pledged in good faith shall not be disregarded if the pledgee establishes to the satisfaction of the Trustee the pledgee's right so to act with respect to the Securities of such Series and that the pledgee is not the Company or any other obligor upon the Securities of such Series or any Affiliate of any of them.

2.11. TEMPORARY SECURITIES.

Until definitive Securities are ready for delivery, the Company may prepare and execute and the Trustee shall authenticate temporary Securities. Temporary Securities shall be substantially in the form, and shall carry all rights, of definitive Securities but may have variations that the Company considers appropriate for temporary Securities. Without unreasonable delay, the Company shall prepare and execute and the Trustee shall authenticate definitive Securities in exchange for temporary Securities presented to it without charge to the Holder.

2.12. CANCELLATION.

All Securities surrendered for payment, redemption, registration of transfer or exchange or for credit against any sinking fund payment shall, if surrendered to any Person other than the Trustee, be delivered to the Trustee for cancellation. The Company may at any time deliver to the Trustee for cancellation any Securities previously authenticated and delivered hereunder which the Company may have acquired in any manner whatsoever, and may deliver to the Trustee (or to any other Person for delivery to the Trustee) for cancellation any Securities previously authenticated hereunder which the Company has not issued and sold. The Registrar and the Paying Agent shall forward to the Trustee any Securities surrendered to them for transfer, exchange or payment. The Trustee or, at the direction of the Trustee, the Registrar or the Paying Agent, and no one else, shall cancel and at the written request of the Company, shall dispose of all Securities surrendered for transfer, exchange, payment or cancellation. If the Company shall acquire any of the Securities, such acquisition shall not operate as a redemption or satisfaction of the Indebtedness represented by such Securities unless and until the same are surrendered to the Trustee for cancellation pursuant to this Section 2.12. No Securities shall be authenticated in lieu of or in exchange for any Securities cancelled as provided in this Section 2.12, except as expressly permitted by this Indenture.

2.13. PAYMENT OF INTEREST; DEFAULTED INTEREST; COMPUTATION OF INTEREST.

Except as otherwise provided as contemplated by Section 2.2 with respect to any Series of Securities, interest on any Security which is payable, and is punctually paid or duly provided for, on any Interest Payment Date shall be paid to the Person in whose name that Security is registered at the close of business on the regular record date for such interest, as provided in the Board Resolution, supplemental indenture hereto or Officers' Certificate establishing the terms of such Series.

If the Company defaults in a payment of interest on the Securities, it shall pay the defaulted amounts, plus any interest payable on defaulted amounts pursuant to Section 4.1 hereof, to the Persons who are Securityholders on a subsequent special record date, which date shall be the fifteenth day next preceding the date fixed by the Company for the payment of defaulted interest or the next succeeding Business Day if such date is not a Business Day. At least 15 days before the special record date, the Company shall mail or cause to be mailed to each Securityholder, with a copy to the Trustee, a notice that states the special record date, the payment date, and the amount of defaulted interest, and interest payable on such defaulted

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interest, if any, to be paid.

Except as otherwise specified as contemplated by Section 2.2 for Securities of any Series, interest on the Securities of each Series shall be computed on the basis of a 360-day year of twelve 30-day months.

2.14. CUSIP NUMBER.

The Company in issuing the Securities may use one or more "CUSIP" numbers, and if so, the Trustee shall use the CUSIP number(s) in notices of redemption or exchange as a convenience to Holders, PROVIDED that any such notice may state that no representation is made as to the correctness or accuracy of the CUSIP number(s) printed in the notice or on the Securities, and that reliance may be placed only on the other identification numbers printed on the Securities and any such redemption shall not be affected by any defect in or omission of any such numbers.

2.15. PROVISIONS FOR GLOBAL SECURITIES.

(a) A Board Resolution, a supplemental indenture hereto or an Officers' Certificate shall establish whether the Securities of a Series shall be issued in whole or in part in the form of one or more Global Securities and the Depository for such Global Securities.

(b) Notwithstanding any provisions to the contrary contained in Section 2.7 of the Indenture and in addition thereto, if, and only if the Depository (i) at any time is unwilling or unable to continue as Depository for such Global Security or ceases to be a clearing agency registered under the Exchange Act and (ii) a successor Depository is not appointed by the Company within 90 days after the date the Company is so informed in writing or becomes aware of the same, the Company promptly will execute and deliver to the Trustee definitive Securities, and the Trustee, upon receipt of a Company Request for the authentication and delivery of such definitive Securities (which the Company will promptly execute and deliver to the Trustee) and an Officers' Certificate to the effect that such Global Security shall be so exchangeable, will authenticate and deliver definitive Securities, without charge, registered in such names and in such authorized denominations as the Depository shall direct in writing (pursuant to instructions from its direct and indirect participants or otherwise) in an aggregate principal amount equal to the principal amount of the Global Security with like tenor and terms. Upon the exchange of a Global Security for definitive Securities, such Global Security shall be canceled by the Trustee. Unless and until it is exchanged in whole or in part for definitive Securities, as provided in this Section 2.15(b), a Global Security may not be transferred except as a whole by the Depository or by the Depository or any such nominee of such Depository, by a nominee of such Depository to such Depository or another nominee of such Depository or by the Depository or any such nominee to a successor Depository or a nominee of such Depository or an oscience.

(c) Any Global Security issued hereunder shall bear a legend in substantially the following form:

"This Security is a Global Security within the meaning of the Indenture hereinafter referred to and is registered in the name of the Depository or a nominee of the Depository. This Security is

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exchangeable for Securities registered in the name of a Person other than the Depository or its nominee only in the limited circumstances described in the Indenture, and may not be transferred except as a whole by the Depository to a nominee of the Depository, by a nominee of the Depository to the Depository or another nominee of the Depository or any such nominee to a successor Depository or a nominee of such a successor Depository."

(d) The Depository, as a Holder, may appoint agents and otherwise authorize participants to give or take any request, demand, authorization, direction, notice, consent, waiver or other action which a Holder is entitled to give or take under the Indenture.

(e) Notwithstanding the other provisions of this Indenture, unless otherwise specified as contemplated by Section 2.2, payment of the principal of and interest and premium, if any, on any Global Security shall be made to the Depository or its nominee in its capacity as the Holder thereof.

(f) Except as provided in Section 2.15(e), the Company, the Trustee and any Agent shall treat a Person as the Holder of such principal amount of outstanding Securities of any Series represented by a Global Security as shall be specified in a written statement of the Depository (which may be in the form of a participants' list for such Series) with respect to such Global Security, for purposes of obtaining any consents, declarations, waivers or directions required to be given by the Holders pursuant to this Indenture, PROVIDED that until the Trustee is so provided with a written statement, it may treat the Depository or any other Person in whose name a Global Security is registered as the owner of such Global Security for the purpose of receiving payment of principal of and any premium and (subject to Section 2.13) any interest on such Global Security and for all other purposes whatsoever, and neither the Company, the Trustee nor any agent of the Company or the Trustee shall be affected by notice to the contrary.

2.16. PERSONS DEEMED OWNERS.

Prior to due presentment of a Security for registration of transfer, the Company, the Trustee, the Registrar and any agent of the Company, the Registrar or the Trustee may treat the Person in whose name such Security is registered as the owner of such Security for the purpose of receiving payment of principal of and any premium and (subject to Section 2.13) any interest on such Security and for all other purposes whatsoever, and neither the Company, the Trustee, the Registrar nor any agent of the Company, the Registrar or the Trustee shall be affected by notice to the contrary.

ARTICLE 3

REDEMPTION

3.1. NOTICES TO TRUSTEE.

The Company may, with respect to any Series of Securities, reserve the right to redeem and pay the Series of Securities or may covenant to redeem and pay the Series of Securities or

any part thereof prior to the Stated Maturity thereof at such time and on such terms as provided for in such Securities or the related Board Resolution, supplemental indenture or Officers' Certificate. If a Series of Securities is redeemable and the Company elects to redeem such Securities of a Series, it shall notify the Trustee of the Redemption Date and the principal amount of Securities to be redeemed at least 45 days (unless a shorter notice shall be satisfactory to the Trustee) before the Redemption Date. Any such notice may be canceled at any time prior to notice of such redemption being mailed to any Holder and shall thereby be void and of no effect.

3.2. SELECTION BY TRUSTEE OF SECURITIES TO BE REDEEMED.

Unless otherwise indicated for a particular Series of Securities by a Board Resolution, a supplemental indenture or an Officers' Certificate, if fewer than all of the Securities of a Series are to be redeemed, the Trustee shall select the Securities of a Series to be redeemed pro rata, by lot or by any other method that the Trustee considers fair and appropriate (unless the Company specifically directs the Trustee otherwise) and, if such Securities are listed on any securities exchange, by a method that complies with the requirements of such exchange.

The Trustee shall make the selection from Securities of a Series outstanding and not previously called for redemption and shall promptly notify the Company in writing of the Securities selected for redemption and, in the case of any Security selected for partial redemption, the principal amount thereof to be redeemed at least 35 but not more than 60 days before the Redemption Date. Securities of a Series in denominations of \$1,000 may be redeemed only in whole. The Trustee may select for redemption portions of the principal of Securities of a Series that have denominations larger than \$1,000. Securities of a Series and portions of them it selects shall be in amounts of \$1,000 or, with respect to Securities of any Series issuable in other denominations pursuant to Section 2.2(10), the minimum principal denomination for each Series and integral multiples thereof. Provisions of this Indenture that apply to Securities called for redemption.

3.3. NOTICE OF REDEMPTION.

Unless otherwise indicated for a particular Series by Board Resolution, a supplemental indenture hereto or an Officers' Certificate, at least 30 days, and no more than 60 days, before a Redemption Date, the Company shall mail, or cause to be mailed, a notice of redemption by first-class mail to each Holder of Securities to be redeemed at his or her last address as the same appears on the registry books maintained by the Registrar. The notice shall identify the Securities to be redeemed (including the CUSIP number(s) thereof, if any) and shall state:

(1) the Redemption Date;

(2) the redemption price, and that such redemption price shall become due and payable on the Redemption Date;

(3) if any Security of a Series is being redeemed in part, the portion of the principal amount of such Security of a Series to be redeemed and that, after the Redemption Date and upon surrender of such Security of a Series, a new Security or Securities in principal amount equal to the unredeemed portion will be issued;

(4) the name and address of the Paying Agent;

(5) that Securities of a Series called for redemption must be surrendered to the Paying Agent to collect the redemption price, and the place or places where each such Security is to be surrendered for such payment;

(6) that, unless the Company defaults in making the redemption payment, interest on the Securities of a Series called for redemption ceases to accrue on the Redemption Date, and the only remaining right of the Holders of such Securities is to receive payment of the redemption price upon surrender to the Paying Agent of the Securities redeemed;

(7) if fewer than all the Securities of a Series are to be redeemed, the identification of the particular Securities of a Series (or portion thereof) to be redeemed, as well as the aggregate principal amount of Securities of a Series to be redeemed and the aggregate principal amount of Securities of a Series to be outstanding after such partial redemption.

(8) the CUSIP number, if any, printed on the Securities being redeemed; and

(9) that no representation is made as to the correctness or accuracy of the CUSIP number, if any, listed in such notice or printed on the Securities.

At the Company's request, the Trustee shall give the notice of redemption in the Company's name and at the Company's sole expense.

3.4. EFFECT OF NOTICE OF REDEMPTION.

Once the notice of redemption described in Section 3.3 is mailed, Securities of a Series called for redemption become due and payable on the Redemption Date and at the redemption price, plus interest, if any, accrued to the Redemption Date. Upon surrender to the Trustee or Paying Agent, such Securities of a Series shall be paid at the redemption price, plus accrued interest, if any, to the Redemption Date, PROVIDED that if the Redemption Date is after a regular interest payment record date and on or prior to the next Interest Payment Date, the accrued interest shall be payable to the Holder of the redeemed Securities registered on the relevant record date, as specified by the Company in the notice to the Trustee pursuant to Section 3.1 hereof.

3.5. DEPOSIT OF REDEMPTION PRICE.

On or prior to the Redemption Date (but no later than 11:00 A.M. Eastern Time on such date), the Company shall deposit with the Paying Agent money sufficient to pay the redemption price of and accrued interest, if any, on all Securities to be redeemed on that date other than Securities or portions thereof called for redemption on that date which have been delivered by the Company to the Trustee for cancellation.

On and after any Redemption Date, if money sufficient to pay the redemption price of and accrued interest on Securities called for redemption shall have been made available in accordance with the preceding paragraph and the Company and the Paying Agent are not prohibited from paying such moneys to Holders, the Securities called for redemption will cease

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to accrue interest and the only right of the Holders of such Securities will be to receive payment of the redemption price of and, subject to the proviso in Section 3.4, accrued and unpaid interest on such Securities to the Redemption Date. If any Security called for redemption shall not be so paid, interest will be paid, from the Redemption Date until such redemption payment is made, on the unpaid principal of the Security and any interest or premium (if any) not paid on such unpaid principal, in each case, at the rate and in the manner provided in the Securities.

3.6. SECURITIES REDEEMED IN PART.

Upon surrender of a Security of a Series that is redeemed in part, the Company shall execute and the Trustee shall authenticate for a Holder a new Security of the same Series equal in principal amount to the unredeemed portion of the Security surrendered.

ARTICLE 4

COVENANTS

4.1. PAYMENT OF SECURITIES.

The Company shall pay the principal of and interest and premium, if any, on each Series of Securities on the dates and in the manner provided in such Securities and this Indenture.

An installment of principal or interest shall be considered paid on the date it is due if the Trustee or Paying Agent holds on that date money designated for and sufficient to pay such installment and is not prohibited from paying such money to the Holders pursuant to the terms of this Indenture or otherwise.

The Company shall pay interest on overdue principal, and overdue interest, to the extent lawful, at the rate specified in the Series of Securities.

4.2. SEC REPORTS.

The Company will deliver to the Trustee within 15 days after the filing of the same with the SEC, copies of the quarterly and annual report and of the information documents and other reports, if any, which the Company is required to file with the SEC pursuant to Section 13 or 15(d) of the Exchange Act. Notwithstanding that the Company may not be subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act, the Company will file with the SEC, to the extent permitted, and provide the Trustee, with such quarterly and annual reports and such information, documents and other reports specified in Section 13 and 15(d) of the Exchange Act. The Company will also comply with the other provisions of TIA Section 314(a).

4.3. WAIVER OF STAY, EXTENSION OR USURY LAWS.

The Company covenants (to the extent that it may lawfully do so) that it will not at any time insist upon, or plead (as a defense or otherwise) or in any manner whatsoever claim or take the benefit or advantage of, any stay, extension, usury or other law which would prohibit or forgive the Company from paying all or any portion of the principal of, premium, if any, and/or interest on the Securities as contemplated herein, wherever enacted, now or at any time hereafter

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in force, or which may affect the covenants or the performance of this Indenture; and (to the extent that they may lawfully do so) the Company hereby expressly waives all benefit or advantage of any such law, and covenants that it will not hinder, delay or impede the execution of any power herein granted to the Trustee, but will suffer and permit the execution of every such power as though no such law had been enacted.

4.4. COMPLIANCE CERTIFICATE.

(a) The Company shall deliver to the Trustee, within 120 days after the end of each fiscal year of the Company, an Officers' Certificate which complies with TIA Section 314(a)(4) stating that a review of the activities of the Company and its Subsidiaries during such fiscal year has been made under the supervision of the signing Officers with a view to determining whether the Company has kept, observed, performed and fulfilled its obligations under this Indenture, and further stating, as to each such Officer signing such certificate, that to the best of his or her knowledge the Company has kept, observed, performed and fulfilled each and every covenant contained in this Indenture and that there is no default in the performance or observance of any of the terms, provisions and conditions hereof (or, if a Default or Event of Default shall have occurred, describing all such Defaults or Events of Default of which he or she may have knowledge and what action the Company is taking or proposes to take with respect thereto) and that to the best of his or her knowledge no event has occurred and remains in existence by reason of which payments on account of the principal of or interest or premium, if any, on the Securities is prohibited or if such event has occurred, a description of the event and what action the Company is taking or proposes to take with respect thereto.

(b) (i) If any Default or Event of Default has occurred and is continuing or (ii) if any Holder seeks to exercise any remedy hereunder with respect to a claimed Default under this Indenture or the Securities, within five Business Days after its becoming aware of such occurrence the Company shall deliver to the Trustee an Officers' Certificate specifying such event, notice or other action and what action the Company is taking or proposes to take with respect thereto.

4.5. CORPORATE EXISTENCE.

Subject to Article 5 hereof, the Company shall do or cause to be done all things necessary to preserve and keep in full force and effect its corporate existence, in accordance with the organizational documents (as the same may be amended from time to time) of the Company and the rights (charter and statutory), licenses and franchises of the Company; PROVIDED, HOWEVER, that the Company shall not be required to preserve any such right, license or franchise, or its corporate existence, if the Board of Directors shall determine that the preservation thereof is no longer desirable in the conduct of the business of the Company and that the loss thereof is not adverse in any material respect to the Holders.

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ARTICLE 5

SUCCESSOR CORPORATION

5.1. LIMITATION ON CONSOLIDATION, MERGER AND SALE OF ASSETS.

(a) The Company will not, in any transaction or series of transactions, merge or consolidate with or into, or sell, assign, convey, transfer, lease or otherwise dispose of all or substantially all of its properties and assets (as an entirety or substantially as an entirety in one transaction or a series of related transactions), to any Person or Persons, unless at the time of and after giving effect thereto (i) either (A) if the transaction or series of transactions is a merger or consolidation, the Company shall be the surviving Person of such merger or consolidation, or (B) the Person formed by such consolidation or into which the Company is merged or to which the properties and assets of the Company are transferred (any such surviving Person or transferee Person being the "Surviving Entity") shall be a corporation organized and existing under the laws of the United States of America, any state thereof or the District of Columbia or a corporation or comparable legal entity organized under the laws of a foreign jurisdiction and shall expressly assume by a supplemental indenture executed and delivered to the Trustee, in form reasonably satisfactory to the Trustee, all of the obligations of the Company (including, without limitation, the obligation to pay the principal of, and premium and interest, if any, on the Securities and effect; and (ii) immediately before and immediately after giving effect to such transaction or series of transactions on a pro forma basis (including, without limitation, any Indebtedness incurred or anticipated to be incurred in connection with or in respect of such transaction or series of transactions), no Default or Event of Default shall have occurred and be continuing.

(b) In connection with any consolidation, merger or transfer of assets contemplated by this Section 5.1, the Company shall deliver, or cause to be delivered, to the Trustee, in form and substance reasonably satisfactory to the Trustee, an Officers' Certificate and an Opinion of Counsel, each stating that such consolidation, merger or transfer and the supplemental indenture in respect thereto comply with this Section 5.1 and that all conditions precedent herein provided for relating to such transaction or transactions have been complied with.

5.2. SUCCESSOR PERSON SUBSTITUTED.

Upon any consolidation or merger, or any transfer of all or substantially all of the assets of the Company in accordance with Section 5.1 above, the successor corporation formed by such consolidation or into which the Company is merged or to which such transfer is made shall succeed to, and be substituted for, and may exercise every right and power of, the Company under this Indenture with the same effect as if such successor corporation had been named as the Company herein, and thereafter (except with respect to any such transfer which is a lease) the predecessor corporation shall be relieved of all obligations and covenants under this Indenture and the Securities.

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ARTICLE 6

DEFAULTS AND REMEDIES

6.1. EVENTS OF DEFAULT.

"Events of Default," wherever used herein with respect to Securities of any Series, means any one of the following events, unless in the establishing Board Resolution, supplemental indenture or Officers' Certificate, it is provided that such Series shall not have the benefit of said Event of Default:

(1) there is a default in the payment of any principal of, or premium, if any, on the Securities when the same becomes due and payable at Maturity, upon acceleration, redemption or otherwise;

(2) there is a default in the payment of any interest on any Security of a Series when the same becomes due and payable and the Default continues for a period of 30 days;

(3) the Company defaults in the observance or performance of any other covenant in the Securities of a Series or this Indenture for 60 days after written notice from the Trustee or the Holders of not less than 25% in the aggregate principal amount of the Securities of such Series then outstanding which notice must specify the Default, demand that it be remedied and state the notice is a "Notice of Default";

(4) the Company or any Significant Subsidiary pursuant to or within the meaning of any Bankruptcy Law:

(A) commences a voluntary case,

(B) consents to the entry of an order for relief against it in an involuntary case,

(C) consents to the appointment of a Custodian of it or for all or substantially all of its property,

(D) makes a general assignment for the benefit of its creditors, or

(E) generally is not paying its debts as they become due;

(5) a court of competent jurisdiction enters an order or decree under any Bankruptcy Law that:

(A) is for relief against the Company or any Significant Subsidiary in an involuntary case;

(B) appoints a Custodian of the Company or any Significant Subsidiary or for all or substantially all of the property of the Company or any Significant Subsidiary; or

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(C) orders the liquidation of the Company or any Significant Subsidiary, and the order or decree remains unstayed and in effect for 90 consecutive days; or

(6) any other Event of Default provided with respect to Securities of that Series, which is specified in a Board Resolution, a supplemental indenture hereto or an Officers' Certificate, in accordance with Section 2.2(19).

The term "Bankruptcy Law" means Title 11, U.S. Code or any similar federal or state law for the relief of debtors. The term "Custodian" means any receiver, trustee, assignee, liquidator or similar official under any Bankruptcy Law.

The Trustee may withhold notice of any Default (except in payment of principal or premium, if any, or interest on the Securities) to the Holders of the Securities of any Series in accordance with Section 7.5. When a Default is cured, it ceases to exist.

6.2. ACCELERATION.

If an Event of Default with respect to Securities of any Series at the time outstanding (other than an Event of Default arising under Section 6.1(4) or (5)) occurs and is continuing, the Trustee by written notice to the Company, or the Holders of not less than 25% in aggregate principal amount of the Securities of that Series then outstanding may by written notice to the Company and the Trustee declare that the entire principal amount of all the Securities of that Series then outstanding plus accrued and unpaid interest to the date of acceleration are immediately due and payable, in which case such amounts shall become immediately due and payable; PROVIDED, HOWEVER, that after such acceleration but before a judgment or decree based on such acceleration is obtained by the Trustee, the Holders of a majority in aggregate principal amount of the outstanding Securities of that Series may rescind and annul such acceleration and its consequences if (i) all existing Events of Default, other than the nonpayment of accelerated principal, premium, if any, or interest that has become due solely because of the acceleration, have been cured or waived, (ii) to the extent the payment of such interest is lawful, interest on overdue installments of interest and overdue principal, which has become due otherwise than by such declaration of acceleration, has been paid and (iii) the rescission would not conflict with any judgment or decree. No such rescission shall affect any subsequent Default or impair any right consequent thereto. In case an Event of Default specified in Section 6.1(4) or (5) with respect to the Company occurs, such principal, premium, if any, and interest amount with respect to all of the Securities of that Series shall be due and payable immediately without any declaration or other act on the part of the Trustee or the Holders of the Securities of that Series.

6.3. REMEDIES.

If an Event of Default with respect to Securities of any Series at the time outstanding occurs and is continuing, the Trustee may pursue any available remedy by proceeding at law or in equity to collect the payment of principal of, or premium, if any, and interest on the Securities of that Series or to enforce the performance of any provision of the Securities of that Series or this Indenture.

The Trustee may maintain a proceeding even if it does not possess any of the Securities of that Series or does not produce any of them in the proceeding. A delay or omission by the Trustee or any Securityholder in exercising any right or remedy accruing upon an Event of Default shall not impair the right or remedy or constitute a waiver of or acquiescence in the Event of Default. No remedy is exclusive of any other remedy. All available remedies are cumulative to the extent permitted by law.

6.4. WAIVER OF PAST DEFAULTS AND EVENTS OF DEFAULT.

Subject to Sections 6.2, 6.7 and 8.2 hereof, the Holders of a majority in principal amount of the Securities of any Series then outstanding have the right to waive any existing Default or Event of Default with respect to such Series or compliance with any provision of this Indenture (with respect to such Series) or the Securities of such Series. Upon any such waiver, such Default with respect to such Series shall cease to exist, and any Event of Default with respect to such Series arising therefrom shall be deemed to have been cured for every purpose of this Indenture; but no such waiver shall extend to any subsequent or other Default or Event of Default or impair any right consequent thereto. This Section 6.4 shall be in lieu of TIA Section 316(a)(1)(B), and TIA Section 316(a)(1)(B) is hereby expressly excluded from this Indenture and Section as permitted by the TIA.

6.5. CONTROL BY MAJORITY.

Subject to Sections 6.2, 6.7 and 8.2 hereof, the Holders of a majority in principal amount of the Securities of any Series then outstanding may direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power conferred on the Trustee by this Indenture with respect to such Series. The Trustee, however, may refuse to follow any direction that conflicts with law or this Indenture or that the Trustee determines may be unduly prejudicial to the rights of another Securityholder or that may involve the Trustee in personal liability; PROVIDED that the Trustee may take any other action deemed proper by the Trustee which is not inconsistent with such direction. This Section 6.5 shall be in lieu of TIA Section 316(a) (1)(A), and TIA Section 316(a)(1)(A) is hereby expressly excluded from this Indenture and Section as permitted by the TIA.

6.6. LIMITATION ON SUITS.

Subject to Section 6.7 below, a Securityholder may not institute any proceeding or pursue any remedy with respect to this Indenture or the Securities of a Series unless:

(1) the Holder gives to the Trustee written notice of a continuing Event of Default with respect to the Securities of that Series;

(2) the Holders of at least 25% in aggregate principal amount of the Securities of such Series then outstanding make a written request to the Trustee to pursue the remedy;

(3) such Holder or Holders offer to the Trustee indemnity reasonably satisfactory to the Trustee against any loss, liability or expense to be incurred in compliance with such request;

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(4) the Trustee does not comply with the request within 60 days after receipt of the request and the offer of indemnity; and

(5) no direction inconsistent with such written request has been given to the Trustee during such 60-day period by the Holders of a majority in aggregate principal amount of the Securities of such Series then outstanding.

A Securityholder may not use this Indenture to prejudice the rights of another Securityholder or to obtain a preference or priority over another Securityholder.

6.7. RIGHTS OF HOLDERS TO RECEIVE PAYMENT.

Notwithstanding any other provision of this Indenture, the right of any Holder of a Security of a Series to receive payment of principal of, and premium, if any, and interest of the Security of such Series on or after the respective due dates expressed in the Security of such Series, or to bring suit for the enforcement of any such payment on or after such respective dates, is absolute and unconditional and shall not be impaired or affected without the consent of the Holder.

6.8. COLLECTION SUIT BY TRUSTEE.

If an Event of Default in payment of principal, premium or interest specified in Section 6.1(1) or (2) hereof with respect to Securities of any Series at the time outstanding occurs and is continuing, the Trustee may recover judgment in its own name and as trustee of an express trust against the Company (or any other obligor on the Securities of that Series) for the whole amount of unpaid principal and premium, if any, and accrued interest remaining unpaid, together with interest on overdue principal and premium, if any, and, to the extent that payment of such interest is lawful, interest on overdue installments of interest, in each case at the rate then borne by the Securities of that Series, and such further amounts as shall be sufficient to cover the costs and expenses of collection, including the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, as set forth in Section 7.7.

6.9. TRUSTEE MAY FILE PROOFS OF CLAIM.

The Trustee may file such proofs of claim and other papers or documents, and take other actions (including sitting on a committee of creditors) as may be necessary or advisable in order to have the claims of the Trustee (including any claim for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel) and the Securityholders allowed in any judicial proceedings relative to the Company (or any other obligor upon the Securities), any of their respective creditors or any of their respective property and shall be entitled and empowered to collect and receive any monies or other property payable or deliverable on any such claims and to distribute the same after deduction of its charges and expenses to the extent that any such charges and expenses are not paid out of the estate in any such proceedings and any custodian in any such judicial proceeding is hereby authorized by each Securityholder to make such payments to the Trustee, and in the event that the Trustee shall consent to the making of such payments directly to the Securityholders, to pay to the Trustee any amount due to it for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, and any other amounts due the Trustee under Section 7.7 hereof.

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Nothing herein contained shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Securityholder any plan of reorganization, arrangement, adjustment or composition affecting the Securities of a Series or the rights of any Holder thereof, or to authorize the Trustee to vote in respect of the claim of any Securityholder in any such proceedings.

6.10. PRIORITIES.

If the Trustee collects any money pursuant to this Article 6, it shall pay out the money in the following order:

FIRST: to the Trustee for amounts due under Section 7.7 hereof;

SECOND: to Securityholders for amounts then due and unpaid for principal, premium, if any, and interest on the Securities in respect of which or for the benefit of which such money has been collected, ratably, without preference or priority of any kind, according to the amounts due and payable on such Securities; for principal and any premium and interest, respectively; and

THIRD: to the Company.

The Trustee may fix a record date and payment date for any payment to Securityholders pursuant to this Section 6.10. At least 15 days before such record date, the Trustee shall mail to each Securityholder a notice that states the record date, the payment date and amount to be paid.

6.11. UNDERTAKING FOR COSTS.

In any suit for the enforcement of any right or remedy under this Indenture or in any suit against the Trustee for any action taken or omitted by it as Trustee, a court in its discretion may require the filing by any party litigant in the suit of an undertaking to pay the costs of the suit, and the court in its discretion may assess reasonable costs, including reasonable attorneys' fees, against any party litigant in the suit, having due regard to the merits and good faith of the claims or defenses made by the party litigant. This Section 6.11 does not apply to a suit by the Trustee, a suit by a Holder pursuant to Section 6.7 hereof or a suit by Holders of more than 10% in principal amount of the Securities of a Series then outstanding.

ARTICLE 7

TRUSTEE

7.1. DUTIES OF TRUSTEE.

(a) If an Event of Default has occurred and is continuing, the Trustee shall exercise such of the rights and powers vested in it by this Indenture and use the same degree of care and skill in its exercise as a prudent Person would exercise or use under the same circumstances in the conduct of his own affairs.

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(b) Except during the continuance of an Event of Default:

(1) The Trustee need perform only those duties that are specifically set forth in this Indenture and no covenants or obligations shall be implied in this Indenture against the Trustee.

(2) In the absence of bad faith on its part, the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture but, in the case of any such certificates or opinions which by any provision hereof are specifically required to be furnished to the Trustee, the Trustee shall be under a duty to examine the same to determine whether or not they conform to the requirements of this Indenture.

(c) The Trustee may not be relieved from liability for its own negligent action, its own negligent failure to act, or its own willful misconduct, except that:

(1) This paragraph does not limit the effect of paragraph (b) of this Section 7.1.

(2) The Trustee shall not be liable for any error of judgment made in good faith by a Responsible Officer, unless it is proved that the Trustee was negligent in ascertaining the pertinent facts.

(3) The Trustee shall not be liable with respect to any action it takes or omits to take in good faith in accordance with a direction received by it pursuant to Sections 6.2 and 6.5 hereof.

(d) No provision of this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its rights or powers if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity satisfactory to it against such risk or liability is not reasonably assured to it.

(e) Whether or not therein expressly so provided, paragraphs (a), (b), (c) and (d) of this Section 7.1 shall govern every provision of this Indenture that in any way relates to the Trustee.

(f) The Trustee and Paying Agent shall not be liable for interest on any money received by it except as the Trustee and Paying Agent may agree in writing with the Company. Money held in trust by the Trustee need not be segregated from other funds except to the extent required by the law.

(g) The Paying Agent, the Registrar and any authenticating agent shall be entitled to the protections, immunities and standard of care set forth in paragraphs (a), (b), (c), (d) and (f) of this Section 7.1 and in Section 7.2 with respect to the Trustee.

7.2. RIGHTS OF TRUSTEE.

(a) Subject to Section 7.1 hereof:

(1) The Trustee may rely on and shall be protected in acting or refraining from acting upon any document reasonably believed by it to be genuine and to have been signed or presented by the proper Person. The Trustee need not investigate any fact or matter stated in the document.

(2) Before the Trustee acts or refrains from acting, it may require an Officers' Certificate or an Opinion of Counsel, or both, which shall conform to the provisions of Section 10.5 hereof. The Trustee shall be protected and shall not be liable for any action it takes or omits to take in good faith in reliance on such certificate or opinion.

(3) The Trustee may act through agents and attorneys and shall not be responsible for the misconduct or negligence of any agent appointed by it with due care.

(4) The Trustee shall not be liable for any action it takes or omits to take in good faith which it reasonably believes to be authorized or within its rights or powers.

(5) The Trustee may consult with counsel reasonably acceptable to the Trustee, which may be counsel to the Company, and the advice or opinion of such counsel as to matters of law shall be full and complete authorization and protection from liability in respect of any action taken, omitted or suffered by it hereunder in good faith and in accordance with the advice or opinion of such counsel.

(6) The Trustee shall be under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request, order or direction of any of the Holders pursuant to the provisions of this Indenture, unless such Holders shall have offered to the Trustee reasonable security or indemnity against the costs, expenses and liabilities which may be incurred therein or thereby.

(7) The Trustee shall not be deemed to have knowledge of any fact or matter (including, without limitation, a Default or Event of Default) unless such fact or matter is known to a Responsible Officer of the Trustee.

(8) Unless otherwise expressly provided herein or in the Securities of a Series or the related Board Resolution, supplemental indenture or Officers' Certificate, the Trustee shall not have any responsibility with respect to reports, notices, certificates or other documents filed with it hereunder, except to make them available for inspection, at reasonable times, by Securityholders, it being understood that delivery of such reports, information and documents to the Trustee is for informational purposes only and the Trustee's receipt of such shall not constitute constructive notice of any information contained therein, including the Company's compliance with any of its covenants hereunder (except as set forth in Section 4.4).

7.3. INDIVIDUAL RIGHTS OF TRUSTEE.

The Trustee in its individual or any other capacity may become the owner or pledgee of Securities and may make loans to, accept deposits from, perform services for or otherwise deal with the Company, or any Affiliate thereof, with the same rights it would have if it were not Trustee. Any Agent may do the same with like rights. The Trustee, however, shall be subject to

Sections 7.10 and 7.11 hereof.

7.4. TRUSTEE'S DISCLAIMER.

The Trustee makes no representation as to the validity or adequacy of this Indenture or the Securities (except that the Trustee represents that it is duly authorized to execute and deliver this Indenture and authenticate the Securities and perform its obligations hereunder), it shall not be accountable for the Company's use of the proceeds from the sale of Securities or any money paid to the Company pursuant to the terms of this Indenture and it shall not be responsible for any statement in the Securities other than its certificates of authentication.

7.5. NOTICE OF DEFAULT.

If a Default or an Event of Default occurs and is continuing with respect to the Securities of any Series and if it is known to the Trustee, the Trustee shall mail to each Securityholder of the Securities of that Series notice of the Default or the Event of Default, as the case may be, within 90 days after it occurs or, if later, after a Responsible Officer of the Trustee has knowledge of such Default or Event of Default (except if such Default or Event of Default has been validly cured or waived before the giving of such notice). Except in the case of a Default or an Event of Default in payment of the principal of, or premium, if any, or interest on any Security of any Series, the Trustee may withhold the notice if and so long as the Board of Directors of the Trustee, the executive committee or any trust committee of such board and/or its Responsible Officers in good faith determine(s) that withholding the notice is in the interests of the Securityholders of that Series.

7.6. REPORTS BY TRUSTEE TO HOLDERS.

If and to the extent required by the TIA, within 60 days after April 1 of each year, commencing the April 1 following the date of this Indenture, the Trustee shall mail to each Securityholder a brief report dated as of such April 1 that complies with TIA Section 313(a). The Trustee also shall comply with TIA Sections 313(b) and 313(c).

A copy of each report at the time of its mailing to Securityholders shall be filed with the SEC and any stock exchange on which the Securities of that Series are listed. The Company shall promptly notify the Trustee when the Securities of any Series are listed on any stock exchange or any delisting thereof, and the Trustee shall comply with TIA Section 313(d).

7.7. COMPENSATION AND INDEMNITY.

The Company shall pay to the Trustee from time to time reasonable compensation for its services. The Trustee's compensation shall not be limited by any provision of law on compensation of a trustee of an express trust. The Company shall reimburse the Trustee within 45 days after receipt of request for all reasonable out-of-pocket disbursements and expenses incurred or made by it in connection with its duties under this Indenture, including the reasonable compensation, disbursements and expenses of the Trustee's agents and counsel.

The Company shall indemnify the Trustee for, and hold it harmless against, any and all loss or liability incurred by it in connection with the acceptance or performance of its duties

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under this Indenture including the reasonable costs and expenses of defending itself against any claim or liability in connection with the exercise or performance of any of its powers or duties hereunder. The Trustee shall notify the Company promptly of any claim asserted against the Trustee for which it may seek indemnity.

The failure by the Trustee to so notify the Company shall not however relieve the Company of its obligations. Notwithstanding the foregoing, the Company need not reimburse the Trustee for any expense or indemnify it against any loss or liability incurred by the Trustee through its negligence or bad faith. To secure the payment obligations of the Company in this Section 7.7, the Trustee shall have a lien prior to the Securities of any Series on all money or property held or collected by the Trustee except such money or property held in trust to pay principal of and interest and premium (if any) on particular Securities of that Series.

When the Trustee incurs expenses or renders services after an Event of Default specified in Section 6.1(4) or (5) hereof occurs, the expenses and the compensation for the services are intended to constitute expenses of administration under any Bankruptcy Law.

For purposes of this Section 7.7, the term "Trustee" shall include any trustee appointed pursuant to Article 9.

7.8. REPLACEMENT OF TRUSTEE.

The Trustee may resign with respect to the Securities of one or more Series by so notifying the Company in writing at least 90 days in advance of such resignation.

The Holders of a majority in principal amount of the outstanding Securities of any Series may remove the Trustee with respect to that Series by notifying the removed Trustee in writing and may appoint a successor Trustee with respect to that Series with the consent of the Company, which consent shall not be unreasonably withheld. The Company may remove the Trustee with respect to that Series at its election if:

(1) the Trustee fails to comply with, or ceases to be eligible under, Section 7.10 hereof;

(2) the Trustee is adjudged a bankrupt or an insolvent or an order for relief is entered with respect to the Trustee under any Bankruptcy Law;

(3) a Custodian or other public officer takes charge of the Trustee or its property; or

(4) the Trustee otherwise becomes incapable of acting.

(5) If the Trustee resigns or is removed or if a vacancy exists in the office of Trustee with respect to any Series of Securities for any reason, the Company shall promptly appoint, by Board Resolution, a successor Trustee.

If a successor Trustee with respect to the Securities of one or more Series does not take office within 60 days after the retiring Trustee resigns or is removed, the retiring Trustee, the

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Company or the Holders of at least 10% in principal amount of the outstanding Securities of the applicable Series may petition any court of competent jurisdiction for the appointment of a successor Trustee.

If the Trustee with respect to the Securities of one or more Series fails to comply with Section 7.10 hereof, any Securityholder of the applicable Series may petition any court of competent jurisdiction for the removal of the Trustee and the appointment of a successor Trustee.

A successor Trustee shall deliver a written acceptance of its appointment to the retiring Trustee and to the Company. Immediately following such delivery, (i) the retiring Trustee with respect to one or more Series shall, subject to its rights under Section 7.7 hereof, transfer all property held by it as Trustee with respect to such Series to the successor Trustee, (ii) the resignation or removal of the retiring Trustee shall become effective, and (iii) the successor Trustee with respect to such Series shall have all the rights, powers and duties of the Trustee under this Indenture. A successor Trustee with respect to the Securities of one or more Series shall mail notice of its succession to each Securityholder of such Series.

7.9. SUCCESSOR TRUSTEE BY CONSOLIDATION, MERGER OR CONVERSION.

If the Trustee, or any Agent, consolidates with, merges or converts into, or transfers all or substantially all of its corporate trust assets to, another corporation, subject to Section 7.10 hereof, the successor corporation without any further act shall be the successor Trustee or Agent, as the case may be.

7.10. ELIGIBILITY; DISQUALIFICATION.

This Indenture shall always have a Trustee who satisfies the requirements of TIA Sections 310(a)(1), (2) and (5) in every respect. The Trustee (or in the case of a Trustee that is a Person included in a bank holding company system, the related bank holding company) shall have a combined capital and surplus of at least \$100,000,000 as set forth in its most recent published annual report of condition. The Trustee shall comply with TIA Section 310(b), including the provision in Section 310(b)(1). In addition, if the Trustee is a Person included in a bank holding company system, the Trustee, independently of such bank holding company, shall meet the capital requirements of TIA Section 310(a)(2). If at any time the Trustee shall cease to be eligible in accordance with the provisions of this Section 7.10, it shall resign immediately in the manner and with the effect specified in this Article 7.

7.11. PREFERENTIAL COLLECTION OF CLAIMS AGAINST COMPANY.

The Trustee shall comply with TIA Section 311(a), excluding any creditor relationship listed in TIA Section 311(b). A Trustee who has resigned or been removed shall be subject to TIA Section 311(a) to the extent indicated therein.

7.12. PAYING AGENTS.

The Company shall cause each Paying Agent other than the Trustee to execute and deliver to it and the Trustee an instrument in which such agent shall agree with the Trustee, subject to the provisions of this Section 7.12:

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(1) that it will hold all sums held by it as agent for the payment of principal of, or premium, if any, or interest on, the Securities (whether such sums have been paid to it by the Company or by any obligor on the Securities) in trust for the benefit of Holders of the Securities or the Trustee;

(2) that it will at any time during the continuance of any Event of Default, upon written request from the Trustee, deliver to the Trustee all sums so held in trust by it together with a full accounting thereof; and

(3) that it will give the Trustee written notice within three (3) Business Days after any failure of the Company (or by any obligor on the Securities) in the payment of any installment of the principal of, premium, if any, or interest on, the Securities when the same shall be due and payable.

ARTICLE 8

AMENDMENTS, SUPPLEMENTS AND WAIVERS

8.1. WITHOUT CONSENT OF HOLDERS.

The Company, when authorized by a Board Resolution, and the Trustee may amend or supplement this Indenture or the Securities of one or more Series without notice to, or consent of, any Securityholder:

(1) to comply with Section 5.1 hereof;

(2) to provide for certificated Securities in addition to uncertificated Securities;

(3) to comply with any requirements of the SEC under the TIA;

(4) to cure any ambiguity, defect or inconsistency, or to make any other change herein or in the Securities that does not materially and adversely affect the rights of any Securityholder;

(5) to provide for the issuance of and establish the form and terms and conditions of Securities of any Series as permitted by this Indenture; or

(6) to evidence and provide for the acceptance of appointment hereunder by a successor Trustee with respect to the Securities of one or more Series and to add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee.

The Trustee is hereby authorized to join with the Company in the execution of any supplemental indenture authorized or permitted by the terms of this Indenture and to make any further appropriate agreements and stipulations which may be therein contained, but the Trustee shall not be obligated to enter into any such supplemental indenture which adversely affects its own rights, duties or immunities under this Indenture.

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8.2. WITH CONSENT OF HOLDERS.

(a) The Company, when authorized by a Board Resolution, and the Trustee may amend or supplement this Indenture or the Securities of one or more Series with the written consent of the Holders of not less than a majority in aggregate principal amount of the outstanding Securities of such Series affected by such amendment or supplement without notice to any Securityholder. The Holders of not less than a majority in aggregate principal amount of the outstanding Securities of each such Series affected by such amendment or supplement may waive compliance in a particular instance by the Company with any provision of this Indenture or the Securities of such Series without notice to any Securityholder. Subject to Section 8.4, without the consent of each Securityholder affected, however, an amendment, supplement or waiver may not:

(1) reduce the amount of Securities whose Holders must consent to an amendment, supplement or waiver to this Indenture or the Securities;

(2) reduce the rate of or change the time for payment of interest on any Security;

(3) reduce the principal or change the Stated Maturity of any Security or reduce the amount of, or postpone the date fixed for, the payment of any sinking fund or analogous obligation;

(4) make any Security payable in money other than that stated in the Security;

(5) change the amount or time of any payment required by the Securities or reduce the premium payable upon any redemption of the Securities, or change the time before which no such redemption may be made;

(6) waive a Default or Event of Default in the payment of the principal of or interest or premium, if any, on any Security (except a rescission of acceleration of the Securities of any Series by the Holders of at least a majority in principal amount of the outstanding Securities of such Series and a waiver of the payment default that resulted from such acceleration);

(7) waive a redemption payment with respect to any Security or change any of the provisions with respect to the redemption of any Securities;

(8) make any changes in Section 6.6 hereof or this Section 8.2; except to increase any percentage of Securities the Holders of which must consent to any matter; or

(9) take any other action otherwise prohibited by this Indenture to be taken without the consent of each Holder affected thereby.

(b) Upon the request of the Company, accompanied by a Board Resolution authorizing the execution of any such supplemental indenture, and upon the receipt by the Trustee of evidence reasonably satisfactory to the Trustee of the consent of the Securityholders as aforesaid and upon receipt by the Trustee of the documents described in Section 8.6 hereof,

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the Trustee shall join with the Company in the execution of such supplemental indenture unless such supplemental indenture affects the Trustee's own rights, duties or immunities under this Indenture, in which case the Trustee may in its discretion, but shall not be obligated to, enter into such supplemental indenture.

(c) It shall not be necessary for the consent of the Holders under this section to approve the particular form of any proposed amendment, supplement or waiver, but it shall be sufficient if such consent approves the substance thereof.

After an amendment or supplement under this Section becomes effective, the Company shall mail to Securityholders a notice briefly describing the amendment or supplement. Any failure of the Company to mail any such notice, or any defect therein, shall not, however, in any way impair or affect the validity of any supplemental indenture.

8.3. COMPLIANCE WITH TRUST INDENTURE ACT.

Every amendment to or supplement of this Indenture or the Securities shall comply with the TIA as then in effect.

8.4. REVOCATION AND EFFECT OF CONSENTS.

Until an amendment, supplement, waiver or other action becomes effective, a consent to it by a Holder of a Security is a continuing consent conclusive and binding upon such Holder and every subsequent Holder of the same Security or portion thereof, and of any Security issued upon the transfer thereof or in exchange therefor or in place thereof, even if notation of the consent is not made on any such Security. Any such Holder or subsequent Holder, however, may revoke the consent as to his Security or portion of a Security, if the Trustee receives the notice of revocation before the date the amendment, supplement, waiver or other action becomes effective.

The Company may, but shall not be obligated to, fix a record date for the purpose of determining the Holders entitled to consent to any amendment, supplement, or waiver which record date shall be at least 30 days prior to the first solicitation of such consent. If a record date is fixed, then, notwithstanding the preceding paragraph, those Persons who were Holders at such record date (or their duly designated proxies), and only such Persons, shall be entitled to consent to such amendment, supplement, or waiver or to revoke any consent previously given, whether or not such Persons continue to be Holders after such record date.

After an amendment, supplement, waiver or other action becomes effective, it shall bind every Securityholder, unless it makes a change described in any of clauses (1) through (9) of Section 8.2 hereof. In that case the amendment, supplement, waiver or other action shall bind each Holder of a Security who has consented to it and every subsequent Holder of a Security or portion of a Security that evidences the same debt as the consenting Holder's Security; PROVIDED that any such waiver shall not impair or affect the right of any Holder to receive payment of principal of and interest and premium (if any) on a Security, on or after the respective due dates expressed in such Security, or to bring suit for the enforcement of any such payment on or after such respective dates without the consent of such Holder.

8.5. NOTATION ON OR EXCHANGE OF SECURITIES.

If an amendment, supplement, or waiver changes the terms of a Security of any Series, the Trustee may request the Holder of such Security to deliver it to the Trustee. In such case, the Trustee shall place an appropriate notation on such Security about the changed terms and return it to the Holder. Alternatively, the Company in exchange for such Security may issue and the Trustee shall authenticate a new security that reflects the changed terms. Failure to make the appropriate notation or issue a new Security shall not affect the validity and effect of such amendment, supplement or waiver.

8.6. TRUSTEE TO SIGN AMENDMENTS, ETC.

The Trustee shall sign any amendment, supplement or waiver authorized pursuant to this Article 8 if the amendment, supplement or waiver does not adversely affect the rights, duties, liabilities or immunities of the Trustee. If it does, the Trustee may, but need not, sign it. In signing or refusing to sign such amendment, supplement or waiver the Trustee shall be entitled to receive and, subject to Section 7.1 hereof, shall be fully protected in relying upon an Officers' Certificate and an Opinion of Counsel stating that such amendment, supplement or waiver is authorized or permitted by this Indenture. The Company may not sign an amendment or supplement until the Board of Directors of the Company approves it.

ARTICLE 9

DISCHARGE OF INDENTURE; DEFEASANCE

9.1. DISCHARGE OF INDENTURE.

The Company may terminate its obligations under the Securities of any Series and this Indenture with respect to such Series, except the obligations referred to in the last paragraph of this Section 9.1, if there shall have been canceled by the Trustee or delivered to the Trustee for cancellation all Securities of such Series theretofore authenticated and delivered (other than any Securities of such Series that are asserted to have been destroyed, lost or stolen and that shall have been replaced as provided in Section 2.8 hereof) and the Company has paid all sums payable by it hereunder or deposited all required sums with the Trustee.

After such delivery the Trustee upon request shall acknowledge in a writing prepared by or on behalf of the Company the discharge of the Company's obligations under the Securities of such Series and this Indenture except for those surviving obligations specified below.

Notwithstanding the satisfaction and discharge of this Indenture, the obligations of the Company in Sections 7.7, 9.5 and 9.6 hereof shall survive.

9.2. LEGAL DEFEASANCE.

The Company may at its option, by Board Resolution, be discharged from its obligations with respect to the Securities of any Series on the date upon which the conditions set forth in Section 9.4 below are satisfied (hereinafter, "Legal Defeasance"). For this purpose, such Legal Defeasance means that the Company shall be deemed to have paid and discharged the entire

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indebtedness represented by the Securities of such Series and to have satisfied all its other obligations under such Securities and this Indenture insofar as such Securities are concerned (and the Trustee, at the expense of the Company, shall, subject to Section 9.6 hereof, execute proper instruments acknowledging the same, as are delivered to it by the Company), except for the following which shall survive until otherwise terminated or discharged hereunder: (A) the rights of Holders of outstanding Securities of such Series to receive solely from the trust funds described in Section 9.4 hereof and as more fully set forth in such section, payments in respect of the principal of, premium, if any, and interest on the Securities of such Series when such payments are due, (B) the Company's obligations with respect to the Securities of such Series under Sections 2.4, 2.5, 2.6, 2.7, 2.8 and 2.9 hereof, (C) the rights, powers, trusts, duties, and immunities of the Trustee hereunder (including claims of, or payments to, the Trustee under or pursuant to Section 7.7 hereof) and (D) this Article 9. Subject to compliance with this Article 9, the Company may exercise its option under this Section 9.2 with respect to the Securities of any Series notwithstanding the prior exercise of its option under Section 9.3 below with respect to the Securities of such Series.

9.3. COVENANT DEFEASANCE.

At the option of the Company, pursuant to a Board Resolution, the Company shall be released from its obligations with respect to the outstanding Securities of any Series under Sections 4.2 through 4.5 hereof, inclusive, and Section 5.1 hereof, with respect to the outstanding Securities of such Series, on and after the date the conditions set forth in Section 9.4 hereof are satisfied (hereinafter, "Covenant Defeasance"). For this purpose, such Covenant Defeasance means that the Company may omit to comply with and shall have no liability in respect of any term, condition or limitation set forth in any such specified section or portion thereof, whether directly or indirectly by reason of any reference elsewhere herein to any such specified Section or portion thereof to any other provision herein or in any other document, but the remainder of this Indenture and the Securities of any Series shall be unaffected thereby.

9.4. CONDITIONS TO LEGAL DEFEASANCE OR COVENANT DEFEASANCE.

The following shall be the conditions to application of Section 9.2 or Section 9.3 hereof to the outstanding Securities of a Series:

(1) the Company shall irrevocably have deposited or caused to be deposited with the Trustee (or another trustee satisfying the requirements of Section 7.10 hereof who shall agree to comply with the provisions of this Article 9 applicable to it) as funds in trust for the purpose of making the following payments, specifically pledged as security for, and dedicated solely to, the benefit of the Holders of the Securities, (A) money in an amount, or (B) U.S. Government Obligations or Foreign Government Obligations which through the scheduled payment of principal and interest in respect thereof in accordance with their terms will provide, not later than the due date of any payment, money in an amount, or (C) a combination thereof, sufficient, in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee, to pay and discharge, and which shall be applied by the Trustee (or other qualifying trustee) to pay and discharge, the principal of, premium, if any, and accrued interest on the outstanding Securities of such Series

at the Stated Maturity of such principal, premium, if any, or interest, or on dates for payment and redemption of such principal, premium, if any, and interest selected in accordance with the terms of this Indenture and of the Securities of such Series;

(2) no Event of Default or Default with respect to the Securities of such Series shall have occurred and be continuing on the date of such deposit, or shall have occurred and be continuing at any time during the period ending on the 91st day after the date of such deposit or, if longer, ending on the day following the expiration of the longest preference period under any Bankruptcy Law applicable to the Company in respect of such deposit as specified in the Opinion of Counsel identified in paragraph (8) below (it being understood that this condition shall not be deemed satisfied until the expiration of such period);

(3) such Legal Defeasance or Covenant Defeasance shall not cause the Trustee to have a conflicting interest for purposes of the TIA with respect to any securities of the Company;

(4) such Legal Defeasance or Covenant Defeasance shall not result in a breach or violation of, or constitute default under any other agreement or instrument to which the Company is a party or by which it is bound;

(5) the Company shall have delivered to the Trustee an Opinion of Counsel stating that, as a result of such Legal Defeasance or Covenant Defeasance, neither the trust nor the Trustee will be required to register as an investment company under the Investment Company Act of 1940, as amended;

(6) in the case of an election under Section 9.2 above, the Company shall have delivered to the Trustee an Opinion of Counsel stating that (i) the Company has received from, or there has been published by, the Internal Revenue Service a ruling to the effect that or (ii) there has been a change in any applicable Federal income tax law with the effect that, and such opinion shall confirm that, the Holders of the outstanding Securities of such Series or Persons in their positions will not recognize income, gain or loss for Federal income tax purposes solely as a result of such Legal Defeasance and will be subject to Federal income tax on the same amounts, in the same manner, including as a result of prepayment, and at the same times as would have been the case if such Legal Defeasance had not occurred;

(7) in the case of an election under Section 9.3 hereof, the Company shall have delivered to the Trustee an Opinion of Counsel to the effect that the Holders of the outstanding Securities of such Series will not recognize income, gain or loss for Federal income tax purposes as a result of such Covenant Defeasance and will be subject to Federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Covenant Defeasance had not occurred;

(8) the Company shall have delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent provided for in this Article 9 relating to either the Legal Defeasance under Section 9.2 above or the Covenant Defeasance under Section 9.3 hereof (as the case may be) have been complied with;

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(9) the Company shall have delivered to the Trustee an Officers' Certificate stating that the deposit under clause (1) was not made by the Company with the intent of defeating, hindering, delaying or defrauding any creditors of the Company or others; and

(10) the Company shall have paid or duly provided for payment under terms mutually satisfactory to the Company and the Trustee all amounts then due to the Trustee pursuant to Section 7.7 hereof.

9.5. DEPOSITED MONEY AND U.S. AND FOREIGN GOVERNMENT OBLIGATIONS TO BE HELD IN TRUST; OTHER MISCELLANEOUS PROVISIONS.

All money, U.S. Government Obligations and Foreign Government Obligations (including the proceeds thereof) deposited with the Trustee pursuant to Section 9.4 hereof in respect of the outstanding Securities shall be held in trust and applied by the Trustee, in accordance with the provisions of such Securities and this Indenture, to the payment, either directly or through any Paying Agent as the Trustee may determine, to the Holders of such Securities, of all sums due and to become due thereon in respect of principal, premium, if any, and accrued interest, but such money need not be segregated from other funds except to the extent required by law.

The Company shall pay and indemnify the Trustee against any tax, fee or other charge imposed on or assessed against the U.S. Government Obligations and Foreign Government Obligations deposited pursuant to Section 9.4 hereof or the principal, premium, if any, and interest received in respect thereof other than any such tax, fee or other charge which by law is for the account of the Holders of the outstanding Securities.

Anything in this Article 9 to the contrary notwithstanding, but subject to payment of any of its outstanding fees and expenses, the Trustee shall deliver or pay to the Company from time to time upon Company Request any money, U.S. Government Obligations or Foreign Government Obligations held by it as provided in Section 9.4 hereof which, in the opinion of a nationally-recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee, are in excess of the amount thereof which would then be required to be deposited to effect an equivalent Legal Defeasance or Covenant Defeasance.

9.6. REINSTATEMENT.

If the Trustee or Paying Agent is unable to apply any money, U.S. Government Obligations or Foreign Government Obligations in accordance with Section 9.1, 9.2, 9.3 or 9.4 hereof by reason of any legal proceeding or by reason of any order or judgment of any court or governmental authority enjoining, restraining or otherwise prohibiting such application, the Company's obligations under this Indenture and the Securities shall be revived and reinstated as though no deposit had occurred pursuant to this Article 9 until such time as the Trustee or Paying Agent is permitted to apply all such money, U.S. Government Obligations or Foreign Government Obligations, as the case may be, in accordance with Section 9.1, 9.2, 9.3 or 9.4 hereof; PROVIDED, HOWEVER, that if the Company has made any payment of principal of, premium, if any, or accrued interest on any Securities because of the reinstatement of their obligations, the Company shall be subrogated to the rights of the Holders of such Securities to

receive such payment from the money, U.S. Government Obligations or Foreign Government Obligations held by the Trustee or Paying Agent.

9.7. MONEYS HELD BY PAYING AGENT.

In connection with the satisfaction and discharge of this Indenture, all moneys then held by any Paying Agent under the provisions of this Indenture shall, upon demand of the Company, be paid to the Trustee, or if sufficient moneys have been deposited pursuant to Section 9.1 hereof, to the Company, and thereupon such Paying Agent shall be released from all further liability with respect to such moneys.

9.8. MONEYS HELD BY TRUSTEE.

Any moneys deposited with the Trustee or any Paying Agent or then held by the Company in trust for the payment of the principal of, or premium, if any, or interest on any Security that are not applied but remain unclaimed by the Holder of such Security for two years after the date upon which the principal of, or premium, if any, or interest on such Security shall have respectively become due and payable shall be repaid to the Company upon Company Request, or if such moneys are then held by the Company in trust, such moneys shall be released from such trust; and the Holder of such Security entitled to receive such payment shall thereafter, as an unsecured general creditor, look only to the Company for the payment thereof, and all liability of the Trustee or such Paying Agent with respect to such trust money shall thereupon cease; PROVIDED, HOWEVER, that the Trustee or any such Paying Agent, before being required to make any such repayment, may, at the expense of the Company, either mail to each Securityholder affected, at the address shown in the register of the Securities maintained by the Registrar or cause to be published once a week for two successive weeks, in a newspaper published in the English language, customarily published each Business Day and of general circulation in the City of New York, New York, a notice that such money remains unclaimed and that, after a date specified therein, which shall not be less than 30 days from the date of such mailing or publication, any unclaimed balance of such moneys then remaining will be repaid to the Company. After payment to the Company or the release of any money held in trust by the Company, Securityholders entitled to the money must look only to the Company for payment as general creditors unless applicable abandoned property law designates another Person.

ARTICLE 10

MISCELLANEOUS

10.1. TRUST INDENTURE ACT CONTROLS.

If any provision of this Indenture limits, qualifies or conflicts with another provision which is required to be included in this Indenture by the TIA, the required provision shall control. If any provision of this Indenture modifies or excludes any provision of the TIA which may be so modified or excluded, the latter provision shall be deemed to apply to this Indenture as so modified or to be excluded, as the case may be.

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10.2. NOTICES.

Any notice or communication shall be given in writing and delivered in Person, sent by facsimile (and receipt confirmed by telephone or electronic transmission report), delivered by commercial courier service or mailed by first-class mail, postage prepaid, addressed as follows:

If to the Company:

StemCells, Inc. 3155 Porter Drive Palo Alto, CA 94304 Fax: (650) 475-3101 Attention: General Counsel

Copy to:

Ropes & Gray LLP One International Place Boston, Massachusetts 02110 Fax: (617) 951-7050 Attention: Geoffrey Davis, Esq.

If to the Trustee:

The Company or the Trustee by written notice to the other may designate additional or different addresses for subsequent notices or communications. Any notice or communication to the Company or the Trustee shall be deemed to have been given or made as of the date so delivered if personally delivered; when receipt is confirmed by telephone or electronic transmission report, if sent by facsimile; and three (3) Business Days after mailing if sent by registered or certified mail, postage prepaid (except that a notice of change of address shall not be deemed to have been given until actually received by the addressee).

Any notice or communication mailed to a Securityholder shall be mailed to such Securityholder by first-class mail, postage prepaid, at such Securityholder's address shown on the register kept by the Registrar.

Failure to mail a notice or communication to a Securityholder or any defect in it shall not affect its sufficiency with respect to other Securityholders. If a notice or communication to a Securityholder is mailed in the manner provided above, it shall be deemed duly given, three Business Days after such mailing, whether or not the addressee receives it.

In case by reason of the suspension of regular mail service, or by reason of any other cause, it shall be impossible to mail any notice as required by this Indenture, then such method of

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notification as shall be made with the approval of the Trustee shall constitute a sufficient mailing of such notice.

In the case of Global Securities, notices or communications to be given to Securityholders shall be given to the Depository, in accordance with its applicable policies as in effect from time to time.

In addition to the manner provided for in the foregoing provisions, notices or communications to Securityholders shall be given by the Company by release made to Reuters Economic Services and Bloomberg Business News.

10.3. COMMUNICATIONS BY HOLDERS WITH OTHER HOLDERS.

Securityholders of any Series may communicate pursuant to TIA Section 312(b) with other Securityholders of that Series or any other Series with respect to their rights under this Indenture or the Securities of that Series or any other Series. The Company, the Trustee, the Registrar and any other Person shall have the protection of TIA Section 312(c).

10.4. CERTIFICATE AND OPINION AS TO CONDITIONS PRECEDENT.

Upon any request or application by the Company to the Trustee to take any action under this Indenture, the Company shall furnish to the Trustee:

(1) an Officers' Certificate (which shall include the statements set forth in Section 10.5 below) stating that, in the opinion of the signers, all conditions precedent, if any, provided for in this Indenture relating to the proposed action have been complied with; and

(2) an Opinion of Counsel (which shall include the statements set forth in Section 10.5 below) stating that, in the opinion of such counsel, all such conditions precedent have been complied with.

10.5. STATEMENT REQUIRED IN CERTIFICATE AND OPINION.

Each certificate and opinion with respect to compliance with a condition or covenant provided for in this Indenture (other than pursuant to Section 4.4 hereof) shall include:

(1) a statement that the Person making such certificate or opinion has read such covenant or condition;

(2) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based;

(3) a statement that, in the opinion of such Person, it or he has made such examination or investigation as is necessary to enable it or him to express an informed opinion as to whether or not such covenant or condition has been complied with; and

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(4) a statement as to whether or not, in the opinion of such Person, such covenant or condition has been complied with.

10.6. RULES BY TRUSTEE AND AGENTS.

The Trustee may make reasonable rules for action by or at meetings of Securityholders. The Registrar and Paying Agent may make reasonable rules for their functions.

10.7. BUSINESS DAYS; LEGAL HOLIDAYS; PLACE OF PAYMENT.

A "Business Day" is a day that is not a Legal Holiday. A "Legal Holiday" is a Saturday, a Sunday, a federally-recognized holiday or a day on which banking institutions are not authorized or required by law or executive order to be open in the State of California or the State of New York.

If a payment date is a Legal Holiday at a Place of Payment, payment may be made at that place on the next succeeding day that is not a Legal Holiday, and no interest shall accrue for the intervening period. "Place of Payment" means the place or places where the principal of and any premium and interest on the Securities of a Series are payable as specified as contemplated by Section 2.2. If the regular record date is a Legal Holiday, the record date shall not be affected.

10.8. GOVERNING LAW.

THIS INDENTURE AND THE SECURITIES SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK, AS APPLIED TO CONTRACTS MADE AND PERFORMED WITHIN THE STATE OF NEW YORK WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW.

10.9. NO ADVERSE INTERPRETATION OF OTHER AGREEMENTS.

This Indenture may not be used to interpret another indenture, loan, security or debt agreement of the Company or any Subsidiary thereof. No such indenture, loan, security or debt agreement may be used to interpret this Indenture.

10.10. NO RECOURSE AGAINST OTHERS.

A director, officer, employee, stockholder or incorporator, as such, of the Company shall not have any liability for any obligations of the Company under the Securities or the Indenture. Each Securityholder by accepting a Security waives and releases all such liability. Such waiver and release are part of the consideration for the issuance of the Securities.

10.11. SUCCESSORS.

All covenants and agreements of the Company in this Indenture and the Securities shall bind its successors and assigns, whether so expressed or not. All agreements of the Trustee, any additional trustee and any Paying Agents in this Indenture shall bind their respective successors and assigns.

10.12. MULTIPLE COUNTERPARTS.

The parties may sign multiple counterparts of this Indenture. Each signed counterpart shall be deemed an original, but all of them together represent one and the same agreement.

10.13. TABLE OF CONTENTS, HEADINGS, ETC.

The table of contents, cross-reference sheet and headings of the Articles and Sections of this Indenture have been inserted for convenience of reference only, are not to be considered a part hereof, and shall in no way modify or restrict any of the terms or provisions hereof.

10.14. SEVERABILITY.

Each provision of this Indenture shall be considered separable and if for any reason any provision which is not essential to the effectuation of the basic purpose of this Indenture or the Securities shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby and a Holder shall have no claim therefor against any party hereto.

10.15. SECURITIES IN A FOREIGN CURRENCY OR IN EURO.

Unless otherwise specified in a Board Resolution, a supplemental indenture hereto or an Officers' Certificate delivered pursuant to Section 2.2 of this Indenture with respect to a particular Series of Securities, whenever for purposes of this Indenture any action may be taken by the Holders of a specified percentage in aggregate principal amount of Securities of all Series or all Series affected by a particular action at the time outstanding and, at such time, there are outstanding Securities of any Series which are denominated in a coin or currency other than Dollars (including Euros), then the principal amount of Securities of such Series which shall be deemed to be outstanding for the purpose of taking such action shall be that amount of Dollars that could be obtained for such amount at the Market Exchange Rate at such time. For purposes of this Section 10.15, "Market Exchange Rate" shall mean the noon Dollar buying rate in New York City for cable transfers of that currency as published by the Federal Reserve Bank of New York; PROVIDED, HOWEVER, in the case of Euros, Market Exchange Rate shall mean the rate of exchange determined by the Commission of the European Union (or any successor thereto) as published in the Official Journal of the European Union (such publication or any successor publication, the "Journal"). If such Market Exchange Rate is not available for any reason with respect to such currency, the Trustee shall use, in its sole discretion and without liability on its part, such quotations or, in the case of Euros, in Luxembourg or such other quotations or, in the case of Euros, rates of exchange as published in the Journal, as of the currency in question or, in the case of Euros, in Luxembourg or such other quotations or, in the case of Euros, rates of exchange as the Trustee, upon consultation with the Company, shall deem appropriate. The provisions of this paragraph shall apply in determining the equivalent principal amount in respect of Securities of a Series denominated in currency other tha

All decisions and determinations of the Trustee regarding the Market Exchange Rate or

any alternative determination provided for in the preceding paragraph shall be in its sole discretion and shall, in the absence of manifest error, be conclusive to the extent permitted by law for all purposes and irrevocably binding upon the Company and all Holders.

10.16. JUDGMENT CURRENCY.

The Company agrees, to the fullest extent that it may effectively do so under applicable law, that (a) if for the purpose of obtaining judgment in any court it is necessary to convert the sum due in respect of the principal of or interest or premium (if any) or other amount on the Securities of any Series (the "Required Currency") into a currency in which a judgment will be rendered (the "Judgment Currency"), the rate of exchange used shall be the rate at which in accordance with normal banking procedures the Trustee could purchase in The City of New York the Required Currency with the Judgment Currency on the day on which final unappealable judgment is entered, unless such day is not a New York Banking Day, then, the rate of exchange used shall be the rate at which in accordance with normal banking procedures the Trustee could purchase in The City of New York the Required Currency with the Judgment Currency on the day on which final unappealable judgment is entered, unless such day is not a New York Banking Day, then, the rate of exchange used shall be the rate at which in accordance with normal banking procedures the Trustee could purchase in The City of New York the Required Currency with the Judgment Currency on the New York Banking Day preceding the day on which final unappealable judgment is entered and (b) its obligations under this Indenture to make payments in the Required Currency (i) shall not be discharged or satisfied by any tender, any recovery pursuant to any judgment (whether or not entered in accordance with subsection (a)), in any currency other than the Required Currency, except to the extent that such tender or recovery shall result in the actual receipt, by the payee, of the full amount of the Required Currency expressed to be payable in respect of such payments, (ii) shall be enforceable as an alternative or additional cause of action for the purpose of recovering in the Required Currency the amount, if any, by which such actual receipt shall fall short of the full amount of the Required C

IN WITNESS WHEREOF, the parties hereto have caused this Indenture to be duly executed, and their respective corporate seals to be hereunto affixed and attested, all as of the day and year first above written.

STEMCELLS, INC.

By:	

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[Name of Trustee]

By:	_

Name: Title:

Title:

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Re: <u>Registration of Securities of StemCells, Inc. with an Aggregate Offering Price of up to \$100,000,000</u>.

Ladies and Gentlemen:

This opinion is being furnished to you in connection with the Registration Statement on Form S-3 (the "Registration Statement"), including the prospectus that is part of the Registration Statement (the "Prospectus"), filed by StemCells, Inc., a Delaware corporation (the "Company"), with the Securities and Exchange Commission (the "SEC") on June 24, 2008 under the Securities Act of 1933, as amended (the "Securities Act"). The Prospectus provides that it will be supplemented in the future by one or more prospectus supplements (each, a "Prospectus Supplement"). The Prospectus, as supplemented by the various Prospectus Supplements, will provide for the issuance and sale by the Company from time to time of (i) shares of common stock, \$0.01 par value per share (the "Common Stock"); (ii) shares of preferred stock (the "Preferred Stock"); (iii) warrants to purchase Common Stock, Preferred Stock and/or Debt Securities (the "Warrants"); or (iv) one or more series of the debt securities of the Company (the "Debt Securities"), which may be either senior securities or subordinated securities and which may be convertible into or exchangeable for shares of the Common Stock, Preferred Stock, or both Common Stock and Preferred Stock.

The Common Stock, the Preferred Stock, the Warrants, and the Debt Securities are collectively referred to herein as the "Securities." The Securities are being registered for offering and sale from time to time pursuant to Rule 415 under the Securities Act. The maximum aggregate offering price of the Securities being registered is \$100,000,000.

The Warrants may be issued pursuant to warrant agreements to be dated on or about the date of the first issuance of the Warrants thereunder (the "Warrant Agreement").

The Debt Securities will be issued pursuant to one or more indentures in the form filed as an exhibit to the Registration Statement, as amended or supplemented from time to time (each, an

StemCells, Inc.

"Indenture"), between the Company, as obligor, and a trustee chosen by the Company and qualified to act as such under the Trust Indenture Act of 1939, as amended (each, a "Trustee").

We have examined and relied upon the information set forth in the Registration Statement and such other records, agreements, certificates and documents, and have made such other and further legal and factual inquiries, as we have deemed necessary as a basis for the opinions expressed herein. As to questions of fact not independently verified by us, we have relied upon certificates of public officials and officers of the Company.

The opinions expressed herein are limited to matters governed by the federal laws of the United States of America and the Delaware General Corporation Law, including the applicable provisions of the Delaware constitution.

Based upon the foregoing and subject to the additional qualifications set forth below, we are of the opinion that:

1. When the issuance and the terms of the sale of the shares of Common Stock have been duly authorized by the board of directors of the Company in conformity with its certificate of incorporation, and such shares have been issued and delivered against payment of the purchase price therefor in an amount in excess of the par value thereof, in accordance with the applicable definitive purchase, underwriting or similar agreement, and as contemplated by the Registration Statement, the Prospectus and the related Prospectus Supplement, and, if issued upon the conversion, exchange or exercise of Debt Securities or Warrants, when such shares have been duly issued and delivered as contemplated by the terms of the applicable Indenture or Warrant, the shares of Common Stock will be validly issued, fully paid and nonassessable.

2. When the issuance and the terms of the sale of the shares of Preferred Stock have been duly authorized by the board of directors of the Company in conformity with its certificate of incorporation; an appropriate certificate or certificates of designation relating to a series of the Preferred Stock to be sold under the Registration Statement have been duly authorized and adopted and filed with the Secretary of State of Delaware; the terms of issuance and sale of shares of such series of Preferred Stock have been duly established in conformity with the Company's certificate of incorporation and by-laws so as to not violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company and comply with any requirement or restriction imposed by any court or governmental body having jurisdiction over the Company or any of its property; and such shares have been issued and delivered against payment of the purchase price therefor in an amount in excess of the par value thereof, in accordance with the applicable definitive purchase, underwriting or similar agreement, and as contemplated by the Registration Statement, the Prospectus and the related Prospectus Supplement, and, if issued upon the conversion, exchange or exercise of any Debt Securities or Warrants, when such shares have been duly issued and delivered as contemplated

by the terms of the applicable Indenture or Warrant, the shares of Preferred Stock will be validly issued, fully paid and nonassessable.

3. When the issuance and the terms of the sale of the Debt Securities have been duly authorized by the board of directors of the Company and duly established in conformity with the applicable Indenture so as not to violate any applicable law or result in a default under, or breach of, any agreement or instrument binding upon the Company and so as to comply with any requirement or restriction imposed by any court or governmental or regulatory body having jurisdiction over the Company or any of its property, and the Debt Securities have been duly executed, authenticated, issued, delivered and sold in accordance with the applicable definitive purchase, underwriting or similar agreement, as contemplated by the Registration Statement, the Prospectus and the related Prospectus Supplement, and in the manner provided for in the applicable Indenture against payment of the purchase price therefor, the Debt Securities will constitute valid and binding obligations of the Company enforceable against the Company in accordance with their respective terms.

4. When the issuance and the terms of the sale of the Warrants have been duly authorized by the board of directors of the Company; the terms of the Warrants and of their issuance and sale have been duly established so as to not violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company and comply with any requirement or restriction imposed by any court or governmental body having jurisdiction over the Company or any of its property; the Warrants have been duly executed and countersigned and issued and sold in accordance with the applicable definitive purchase, underwriting or similar agreement, as contemplated by the Registration Statement, the Prospectus and the related Prospectus Supplement, the Warrants will constitute valid and binding obligations of the Company enforceable against the Company in accordance with their terms.

In rendering the opinions set forth above, we have assumed that (i) the Registration Statement will have become effective under the Securities Act, a Prospectus Supplement will have been prepared and filed with the Commission describing the Securities offered thereby and such Securities will have been issued and sold in accordance with the terms of such Prospectus Supplement; (ii) a definitive purchase, underwriting or similar agreement with respect to such Securities (if applicable) will have been duly authorized, executed and delivered by the Company and the other parties thereto; (iii) the Securities will be duly authorized by all necessary corporate action by the Company and the Indenture, any applicable supplemental indenture thereto, and other agreement pursuant to which such Securities may be issued will be duly authorized, executed and delivered by the Company and the other parties thereto; (iv) the Company is and will remain duly organized, validly existing and in good standing under applicable state law; and (v) the Company has reserved a sufficient number of shares of its duly authorized, but unissued, Common Stock and Preferred Stock as is necessary to provide for the StemCells, Inc.

issuance of the shares of Common Stock and Preferred Stock pursuant to the Registration Statement.

The opinions set forth above are subject to the following exceptions, limitations and qualifications: (i) the effect of bankruptcy, insolvency, reorganization, fraudulent conveyance, moratorium or other similar laws now or hereafter in effect relating to or affecting the rights and remedies of creditors; (ii) the effect of general principles of equity, including without limitation, concepts of materiality, reasonableness, good faith and fair dealing and the possible unavailability of specific performance or injunctive relief, regardless of whether enforcement is considered in a proceeding in equity or at law, and the discretion of the court before which any proceeding therefore may be brought; (iii) the unenforceability under certain circumstances under law or court decisions of provision providing for the indemnification of, or contribution to, a party with respect to at liability where such indemnification or contribution is contrary to public policy. We express no opinion (i) concerning the enforceability of any waiver of rights or defenses with respect to stay, extension or usury laws or (ii) with respect to whether acceleration of Debt Securities may affect the collectability of any portion of the stated principal amount thereof which might be determined to constitute unearned interest thereon. Our opinion expressed herein is also subject to the qualification that no term or provision shall be included in any Indenture, any Warrant or any other agreement or instrument pursuant to which any of the Securities are to be issued that would affect the validity of such opinion.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to the reference to this firm under the caption "Legal Matters" in the Prospectus included therein. This opinion may be used only in connection with the offer and sale of the Securities while the Registration Statement is effective.

Very truly yours,

/s/ Ropes & Gray LLP Ropes & Gray LLP

StemCells, Inc Ratio of earnings to fixed charges March 31, 2008

	Year ended December 31,				Three months ended March 31,		
	2003	2004	2005	2006 In \$'000)	2007		2008
Earnings:			,				
Income (loss) from from continuing							
operations before income taxes	\$(14,425)	\$(15,330)	\$ (11,738)	\$(18,948)	\$(25,023)	\$	(6,545)
Add (deduct):							
Fixed charges	1,081	1,010	1,152	1,079	1,090		308
Adjusted earnings	(15,506)	(16,340)	(12,890)	(20,027)	(26,113)		(6,853)
Fixed Charges:							
Interest expense	207	191	172	143	124		28
Estimate of the interest within rental							
expense	874	819	980	936	966		280
Total fixed charges	1,081	1,010	1,152	1,079	1,090		308
Excess (deficiency) of earnings available							
to fixed charges	\$(16,587)	\$(17,350)	\$(14,042)	\$(21,105)	\$(27,202)	\$	(7,162)
Ratio of earnings to fixed charges*	NA	N/A	N/A	N/A	N/A		N/A

* Our earnings were insufficient to cover fixed charges in each of the years in the five-year period ended December 31, 2007 and for the three-month period ended March 31, 2008, and accordingly ratios are not presented.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our reports dated March 7, 2008 with respect to the consolidated financial statements (which report expressed an unqualified opinion and contains an explanatory paragraph relating to the adoption of Statement of Financial Accounting Standards No. 123(R), *Share-Based Payment*) and internal control over financial reporting of StemCells, Inc. included in the Annual Report on Form 10-K for the year ended December 31, 2007 which is incorporated by reference in this Registration Statement. We consent to the incorporation by reference in the Registration Statement of the aforementioned reports and to the use of our name as it appears under the caption "Experts."

/s/ GRANT THORNTON LLP

San Francisco, California June 17, 2008