

CELL THERAPEUTICS INC
 Form 424B5
 March 31, 2010
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Filed Pursuant to Rule 424(b)(5)

Registration Statement No.: 333-161442

CALCULATION OF REGISTRATION FEE

| Title of each class of securities to be registered | Maximum aggregate offering price | Amount of registration fee ⁽¹⁾⁽²⁾ |
|---|-------------------------------------|---|
| Series 4 Preferred Stock, no par value per share | \$20,000,000 | \$1,426 |
| Warrants to purchase shares of common stock, no par value per share | \$12,058,000 | \$ 860 ⁽³⁾ |
| Total | \$32,058,000 | \$2,286 |

- (1) Calculated in accordance with Rule 457(r) under the Securities Act.
- (2) This Calculation of Registration Fee table shall be deemed to update the Calculation of Registration Fee table in the registrant's registration statement on Form S-3 (File No. 333-161442) in accordance with Rules 456(b) and 457(r) under the Securities Act.
- (3) Pursuant to Rule 457(g) under the Securities Act, the filing fee is calculated based on the price at which the warrants may be exercised.

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PROSPECTUS SUPPLEMENT

(to Prospectus dated August 19, 2009)

CELL THERAPEUTICS, INC.

20,000 Shares of Series 4 Preferred Stock

Warrants to Purchase 20,000,000 Shares of Common Stock

Pursuant to this prospectus supplement and the accompanying prospectus, we are offering 20,000 shares of Series 4 Convertible Preferred Stock, or the Series 4 Preferred Stock, and warrants to purchase up to 20,000,000 shares of common stock, or the warrants (and the 60,000,000 shares of common stock issuable from time to time upon conversion of the Series 4 Preferred Stock and exercise of the warrants) to certain institutional investors, or collectively, the Initial Purchasers. The purchase price for each share of Series 4 Preferred Stock and a warrant to purchase 1,000 shares of common stock is \$1,000. Each warrant to purchase shares of our common stock will have an exercise price of \$0.6029 per share. The warrants are exercisable six months and one day after the date of issuance and expire four years and one day from the date of issuance.

For a more detailed description of the Series 4 Preferred Stock and warrants, see the sections entitled "Description of Series 4 Preferred Stock" and "Description of Warrants" beginning on pages S-12 and S-14, respectively, of this prospectus supplement. For a more detailed description of our common stock issuable upon the conversion of the offered Series 4 Preferred Stock and exercise of the offered warrants, see the section entitled "Description of Capital Stock" beginning on page S-15 of this prospectus supplement.

Rodman & Renshaw, LLC acted as the sole placement agent and book runner on this transaction. The placement agent is not purchasing or selling any of these securities nor is it required to sell any specific number or dollar amount of securities, but has agreed to use its reasonable best efforts to sell the securities offered by this prospectus supplement.

This prospectus supplement and the accompanying prospectus also cover the sale of these securities by the Initial Purchasers to the public.

The Series 4 Preferred Stock and the warrants will not be listed on any national securities exchange. Our common stock is quoted on The NASDAQ Capital Market and on the *Mercato Telematico Azionario* stock market in Italy, or the MTA, under the symbol CTIC. On March 30, 2010, the last reported sale price of our common stock on The NASDAQ Capital Market was \$0.605.

Investing in the Series 4 Preferred Stock and warrants involves a high degree of risk. See the section entitled Risk Factors beginning on page S-5 of this prospectus supplement and in the documents we incorporate by reference in this prospectus supplement to read about factors you should consider before investing in our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement is truthful or complete. Any representation to the contrary is a criminal offense.

| | Shares of Series 4 Preferred Stock and warrants | Per share of Series 4 Preferred Stock and warrant (1) | Total |
|--|--|--|--------------|
| Offering price per share of Series 4 Preferred Stock and warrant | 20,000 | \$ 1,000 | \$20,000,000 |
| Placement agent fees (2) | | \$ 50 | \$ 1,000,000 |
| Total proceeds to us before other expenses | | \$ 950 | \$19,000,000 |

(1) Table excludes shares of our common stock issuable upon exercise of the warrants offered hereby.

(2) A fee equal to 5% of the aggregate proceeds raised in this offering will be payable to the placement agent. The Series 4 Preferred Stock and warrants will be delivered to the Initial Purchasers on or about April 6, 2010.

This prospectus supplement is dated March 30, 2010.

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You should rely only on the information contained or incorporated by reference in this prospectus supplement or the accompanying prospectus. We have not authorized anyone to provide you with different information.

We are not making an offer of the Series 4 Preferred Stock and warrants (or the shares of common stock issuable from time to time upon conversion of the Series 4 Preferred Stock and exercise of the warrants) covered by this prospectus supplement in any jurisdiction where the offer is not permitted.

You should not assume that the information contained in or incorporated by reference in this prospectus supplement or the accompanying prospectus is accurate as of any date other than the respective dates thereof.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering of Series 4 Preferred Stock and warrants (and the shares of common stock issuable from time to time upon conversion of the Series 4 Preferred Stock and exercise of the warrants) and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference. The second part is the accompanying prospectus, which gives more general information. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or any document incorporated by reference, on the other hand, the information in this prospectus supplement shall control.

In this prospectus supplement, the terms CTI, Company, we, us, our and similar terms refer to Cell Therapeutics, Inc., a Washington corporation and its subsidiaries, unless the context otherwise requires.

You should rely only on the information contained in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus supplement is not an offer to sell these securities, and it is not soliciting an offer to buy these securities, in any jurisdiction where the offer or sale is not permitted. The information contained in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference is accurate only as of their respective dates, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus, or of any sale of the Series 4 Preferred Stock and warrants. You should read this prospectus supplement, the accompanying prospectus and the documents incorporated by reference before making an investment decision. You should also read and consider the information in the documents we have referred you to in the section of this prospectus supplement entitled Incorporation of Certain Documents by Reference.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the information requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act. In accordance with the Exchange Act, we file reports, proxy statements and other information with the Securities and Exchange Commission, or the SEC. Such reports, proxy statements and other information filed by us are available to the public free of charge at www.sec.gov. Copies of certain information filed by us with the SEC are also available on our website at www.celltherapeutics.com. You may also read and copy any document we file at the public reference facilities maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the public reference facilities by calling the SEC at 1-800-SEC-0330.

Because our common stock is listed on The NASDAQ Capital Market, you may also inspect such reports, proxy statements and other information concerning us at the offices of The NASDAQ Stock Market LLC, or NASDAQ, at 1735 K Street, N.W., Washington, D.C. 20006.

This prospectus supplement and the accompanying prospectus are part of a registration statement we filed with the SEC. This prospectus supplement and the accompanying prospectus omit some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits in the registration statement for further information about us and the securities we are offering. Statements in this prospectus supplement or the accompanying prospectus concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings. You should review the complete document to evaluate these statements.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the documents incorporated by reference may contain forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. All statements other than statements of historical fact are forward-looking statements for purposes of these provisions, including:

any projections of cash resources, revenues, operating expenses or other financial terms;

any statements of the plans and objectives of management for future operations or programs;

any statements concerning proposed new products or services;

any statements regarding future operations, plans, regulatory filings or approvals;

any statements on plans regarding proposed or potential clinical trials or new drug filing strategies or timelines;

any statements regarding pending or future mergers or acquisitions; and

any statements regarding future economic conditions or performance, and any statement of assumptions underlying any of the foregoing.

In some cases, forward-looking statements can be identified by terms such as anticipates, believes, continue, could, estimates, expects, plans, potential, predicts, should or will or the negative thereof or other comparable terms. Such statements are based on management's current expectations and are subject to risks and uncertainties which may cause actual results to differ materially from those set forth in the forward-looking statements. There can be no assurance that such expectations or any of the forward-looking statements will prove to be correct, and actual results could differ materially from those projected or assumed in the forward-looking statements. Our future financial condition and results of operations, as well as any forward-looking statements, are subject to inherent risks and uncertainties, including, but not limited to, the risk factors described in the section of this prospectus supplement entitled Risk Factors. All forward-looking statements and reasons why results may differ included in this prospectus are made as of the date hereof, and we assume no obligation to update any such forward-looking statement or reason why actual results might differ, except to the extent required by law.

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SUMMARY

The following summary highlights information contained elsewhere, or incorporated by reference, in this prospectus supplement and the accompanying prospectus. The following summary does not contain all of the information that you should consider before investing in our securities. To understand this offering fully, you should read this entire prospectus supplement and the accompanying prospectus carefully, including the financial statements and the documents incorporated by reference.

Our Company

We develop, acquire and commercialize novel treatments for cancer. Our goal is to build a leading biopharmaceutical company with a diversified portfolio of proprietary oncology drugs. Our research, development, acquisition and in-licensing activities concentrate on identifying and developing new, less toxic and more effective ways to treat cancer. Our operations are primarily conducted in the United States. During 2008, we had one approved drug, Zevalin[®] (ibrutinomab tiuxetan), which we acquired in 2007, generating product sales. We contributed Zevalin to a joint venture, RIT Oncology, LLC, or RIT Oncology, upon its formation in December 2008 and in March 2009 we finalized the sale of our 50% interest in RIT Oncology to the other member of the joint venture, Spectrum Pharmaceuticals, Inc. All of our current product candidates, including pixantrone, OPAXIO, brostallicin and bisplatinates, are under development.

Corporate Information

We were incorporated in the State of Washington in 1991. Our shares of common stock trade on The NASDAQ Capital Market under the symbol CTIC. Our principal executive offices are located at 501 Elliott Avenue West, Suite 400, Seattle, Washington 98119, and our phone number is (206) 282-7100. Our website is located at www.celltherapeutics.com; however, the information in, or that can be accessed through, our website is not part of this prospectus supplement or the accompanying prospectus.

Recent Developments

On March 22, 2010, we announced that the Oncologic Drugs Advisory Committee, or ODAC, of the U.S. Food and Drug Administration, or the FDA, has reviewed our New Drug Application, or NDA, for pixantrone for the treatment of relapsed or refractory aggressive non-Hodgkin's lymphoma and voted unanimously that clinical trial data is not adequate to support approval of pixantrone for patients with relapsed or refractory aggressive non-Hodgkin's lymphoma. ODAC is an independent panel of experts that evaluates data concerning the efficacy and safety of marketed and investigational products for use in the treatment of cancer and makes appropriate recommendations to the FDA. Following the ODAC decision, we requested a meeting with the FDA. However, the FDA noted it was reviewing the ODAC decision and declined a meeting prior to completing its review. Applicable regulations indicate that although the final decision regarding the approval of a product is made by the FDA, the FDA will consider ODAC's recommendations.

Pixantrone is a fast track designated product that has been accepted for review by the FDA with a Prescription Drug User Fee Act date of April 23, 2010. We have requested accelerated approval of pixantrone, and proposed post-marketing commitments trials that are under review by the FDA. The FDA completed its inspection of the facility at NerPharMa (a pharmaceutical manufacturing company belonging to Nerviano Medical Sciences Srl, in Nerviano, Italy) that manufactures pixantrone and has found the site in compliance and acceptable for continued manufacturing of the drug product. **You should not infer that the aforementioned developments in any way increase the likelihood of FDA approval of our NDA.**

On March 12, 2010, a class action complaint was filed in the United States District Court for the Western District of Washington against us and certain of our officers and directors, styled *Cyril Sabbagh, individually and on behalf of all others similarly situated v. Cell Therapeutics, Inc., Dr. James A. Bianco, M.D., and Dr. Jack W. Singer* (Case No. 2:10-sv-00414). On March 19, 2010, a substantially similar class action complaint was filed in the same court, styled *Michael Laquidari, individually and on behalf of all others similarly situated v. Cell Therapeutics, Inc., Dr. James A. Bianco, M.D., and Dr. Jack W. Singer* (Case No. 2:10-cv-00480). The complaints allege that the defendants violated the federal securities laws by making certain alleged false and misleading statements. The plaintiffs seek unspecified damages on behalf of a putative class of purchasers of our securities from May 5, 2009 through February 8, 2010. As is typical in this type of litigation, additional purported securities class action lawsuits containing substantially similar allegations could be filed in the near future. We expect that all of the substantially similar securities class actions will be consolidated into a single action.

In January 2010, we issued and sold in a registered offering an aggregate of 30,000 shares of our Series 3 preferred stock, no par value, and warrants to purchase up to 8.6 million shares of our common stock for gross proceeds of \$30.0 million to certain institutional investors, or the Initial Purchasers. The Initial Purchasers subsequently converted all 30,000 shares of Series 3 preferred stock into 24.7 million shares of our common stock prior to the close of the transaction. The

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warrants remain outstanding and have an exercise price of \$1.18 per share of our common stock, are exercisable immediately and expire one year and one day after the date of issuance. In connection with the offering, we also issued to the placement agent a warrant to purchase up to 0.2 million shares of our common stock at an exercise price of \$1.517 per share. These warrants also are exercisable immediately and expire one year and one day after the date of issuance.

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THE OFFERING

The following is a brief summary of some of the terms of this offering and is qualified in its entirety by reference to the more detailed information appearing elsewhere in this prospectus supplement and the accompanying prospectus.

| | |
|---|--|
| Securities we are offering | 20,000 shares of Series 4 Preferred Stock and warrants to purchase up to 20,000,000 shares of common stock (and the 60,000,000 shares of common stock issuable upon conversion of the Series 4 Preferred Stock and exercise of the warrants). The purchase price for each share of Series 4 Preferred Stock and a warrant to purchase 1,000 shares of common stock is \$1,000. The shares of Series 4 Preferred Stock and warrants will be issued separately, but can only be purchased together in this offering. |
| Description of Series 4 Preferred Stock | |
| Dividends | Holders of the Series 4 Preferred Stock are entitled to receive dividends equal (on an as if converted to common stock basis) to and in the same form as dividends actually paid on shares of common stock or other junior securities, as and if such dividends are paid. We have never declared or paid any cash dividends on our common stock and do not currently anticipate declaring or paying cash dividends on our common stock in the foreseeable future. See Dividend Policy. |
| Optional conversion | The Series 4 Preferred Stock can be converted at the holder's option at any time into shares of common stock at a conversion price determined by dividing the stated value of the Series 4 Preferred Stock to be converted into the conversion price, which is initially \$0.50. The initial conversion price is subject to adjustment in certain events, including a non-stock fundamental change or a common stock fundamental change, which are explained in more detail under the section entitled Description of Series 4 Preferred Stock. |
| Limitations on conversion | We cannot effect a conversion of the Series 4 Preferred Stock and no holder may request a conversion of its Series 4 Preferred Stock if such conversion would result in the holder and its affiliates beneficially owning 4.99% or more of our common stock, provided that a holder may elect to increase the conversion threshold to 9.99% of our common stock by providing us with 61 days' prior notice. |
| Liquidation preference | In the event of our voluntary or involuntary dissolution, liquidation or winding up, each holder will be entitled to be paid a liquidation preference equal to the stated value of such holder's Series 4 Preferred Stock, plus accrued and unpaid dividends and any other payments that may be due on such shares, before any distribution of assets may be made to holders of capital stock ranking junior to the Series 4 Preferred Stock. |
| Voting rights | The Series 4 Preferred Stock will have no voting rights, except as otherwise expressly provided in our articles of incorporation or as otherwise required by law. However, we cannot amend our articles of incorporation, bylaws or other charter documents so as to materially, specifically and adversely affect the rights of the Series 4 Preferred Stock, repay, repurchase or offer to repay or repurchase or otherwise acquire any of our common stock or other securities junior to the Series 4 Preferred Stock, except in certain limited circumstances, or authorize or create any class of senior preferred stock, without the affirmative written consent of holders of a majority of the Series 4 Preferred Stock. |
| Description of warrants | The Initial Purchasers will receive a warrant to purchase 1,000 shares of common stock for each share of Series 4 Preferred Stock purchased in this offering. The warrants are exercisable at an exercise price of \$0.6029 per share of common stock. The warrants are exercisable six months and one day after the date of issuance and expire four years and one day after the date of issuance. See Description of Warrants. |

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| Limitations on exercise | No holder may exercise its warrants to the extent that the exercise would result in the holder and its affiliates beneficially owning 4.99% or more of our common stock, provided that a holder may elect to increase the exercise threshold to 9.99% of our common stock by providing us with 61 days' prior notice. |
| Use of proceeds after expenses | We intend to use the net proceeds from this offering for general corporate purposes, which may include, among other things, paying interest on and/or retiring portions of our outstanding debt, funding research and development, preclinical and clinical trials, the preparation and filing of new drug applications and general working capital. See Use of Proceeds. |
| Market for the Series 4 Preferred Stock and warrants | There is no established public trading market for the Series 4 Preferred Stock or warrants and we do not expect a market to develop. In addition, we do not intend to apply for listing the Series 4 Preferred Stock or warrants on any national securities exchange. |
| Market for the common stock | Our common stock is quoted on The NASDAQ Capital Market and on the MTA under the symbol CTIC. On March 30, 2010, the last reported sale price of our common stock on The NASDAQ Capital Market was \$0.605. |

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RISK FACTORS

You should carefully consider the risks under the heading "Risk Factors" beginning on page 18 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2009, filed with the SEC on February 26, 2010, which information is incorporated by reference in this prospectus supplement, and the additional risks described below and other information in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference before deciding to invest in our securities. If any of the identified risks actually occur, they could materially adversely affect our business, financial condition, operating results or prospects. Additional risks and uncertainties that we do not presently know or that we currently deem immaterial may also impair our business, financial condition, operating results and prospects.

Risks Related to Our Company

We need to raise additional funds and expect that we will need to continue to raise funds in the future, and additional funds may not be available on acceptable terms, or at all; failure to raise significant additional funds may cause us to cease development of our products and operations.

We have substantial operating expenses associated with the development of our product candidates and as of December 31, 2009 we had cash and cash equivalents of \$37.8 million.

As of December 31, 2009, our total current liabilities were \$63.9 million, including \$40.4 million related to our 4% convertible senior subordinated notes which are due in July 2010 and we also had additional debt outstanding. The aggregate long-term principal balance of our outstanding 7.5% and 5.75% convertible senior notes as of December 31, 2009 was \$21.2 million.

We do not expect that our existing cash and cash equivalents, securities available-for-sale, interest receivable as well as proceeds received from our offerings to date will provide sufficient working capital to fund our presently anticipated operations through the third quarter of 2010 and we would therefore need to raise additional capital. Raising additional capital may require that we issue additional shares of our currently authorized common stock. At a Special Meeting of Shareholders to be held on April 9, 2010, we are asking our shareholders to approve an amendment to our amended and restated articles of incorporation to increase the total number of authorized shares of our stock from 810,000,000 shares to 1,210,000,000 shares and to increase the total number of our authorized shares of common stock from 800,000,000 to 1,200,000,000 shares of common stock. We may not obtain sufficient votes from our shareholders for this amendment, which may limit our ability to raise additional funds through the issuance of additional shares. We may not be able to raise such capital or if we can, it may not be on favorable terms. There can be no assurance that we will have sufficient earnings, authorized shares, access to liquidity or cash flow in the future to meet our operating expenses and other obligations, including our debt service obligations.

Our NDA for pixantrone for the treatment of relapsed or refractory aggressive non-Hodgkin's lymphoma may not be approved by the FDA, which would likely adversely affect our financial condition and the value of our securities.

There can be no assurance as to whether or when we will receive regulatory approvals for the use of pixantrone for the treatment of relapsed or refractory aggressive non-Hodgkin's lymphoma. On the contrary, there is substantial risk that the FDA will not approve our NDA for pixantrone for the treatment of relapsed or refractory aggressive non-Hodgkin's lymphoma. On March 22, 2010, we announced that ODAC has reviewed our NDA for pixantrone for the treatment of relapsed or refractory aggressive non-Hodgkin's lymphoma and voted unanimously that clinical trial data is not adequate to support approval of pixantrone for patients with relapsed or refractory aggressive non-Hodgkin's lymphoma. Following the ODAC decision, we requested a meeting with the FDA. However, the FDA noted it was reviewing the ODAC decision and declined a meeting prior to completing its review. Although the FDA is not required to adhere to the recommendations of ODAC with respect to the approval of oncologic products, it frequently follows ODAC's recommendations. Accordingly, ODAC's conclusion that clinical trial data is not adequate to support the approval of pixantrone for patients with relapsed or refractory aggressive non-Hodgkin's lymphoma significantly increases the risk that the FDA will not approve our NDA. If we fail to obtain the FDA's approval of our NDA, our business and financial condition and the value of our securities would likely be adversely affected. See "Summary Recent Developments" for additional information.

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Products that appear promising in research and development may be delayed or fail to reach later stages of development or the market.

The successful development of pharmaceutical products is highly uncertain and obtaining regulatory approval to market drugs to treat cancer is expensive, difficult and risky. Products that appear promising in research and development may be delayed or fail to reach later stages of development or the market for several reasons, including:

clinical trial results may show the product to be less effective than desired or to have harmful or problematic side effects;

preclinical tests may show the product to be toxic or lack efficacy in animal models;

failure to receive the necessary U.S. and international regulatory approvals or a delay in receiving such approvals;

difficulties in formulating the product, scaling the manufacturing process, or getting approval for manufacturing;

manufacturing costs, pricing, reimbursement issues or other factors may make the product uneconomical to commercialize;

other companies or people have or may have proprietary rights to a product candidate, such as patent rights, and will not let the product candidate be sold on reasonable terms, or at all; or

the product candidate is not cost effective in light of existing therapeutics.

Preclinical and clinical data can be interpreted in different ways, which could delay, limit or prevent regulatory approval. Negative or inconclusive results or adverse medical events during a clinical trial could delay, limit or prevent regulatory approval. In addition, any significant problem in the production of our products, such as the inability of a supplier to provide raw materials or supplies used to manufacture our products; equipment obsolescence, malfunctions or failures; product quality or contamination problems; or changes in regulatory requirements or standards that require modifications to our manufacturing process could delay, limit or prevent regulatory approval which could have a material adverse effect on our business, financial condition and results or the trading price of our securities. There can be no assurance as to whether or when we will receive regulatory approvals for our products.

If there is an adverse outcome in the securities class action litigation that has been filed against us, our business may be harmed.

We and certain of our officers and directors are named as defendants in two purported securities class action lawsuits filed in the United States District Court for the Western District of Washington. These lawsuits are brought on behalf of a putative class of purchasers of our securities from May 5, 2009 through February 8, 2010 and seek unspecified damages. As is typical in this type of litigation, additional purported securities class action lawsuits containing substantially similar allegations could be filed in the near future. We expect that all of the substantially similar securities class actions will be consolidated into a single action. As with any litigation proceeding, we cannot predict with certainty the eventual outcome of pending litigation. Furthermore, we may have to incur substantial expenses in connection with this lawsuit. In the event of an adverse outcome, our business could be materially harmed.

Risks Related to this Offering

There is no public market for the Series 4 Preferred Stock or warrants being offered in this offering.

There is no established public trading market for the Series 4 Preferred Stock or warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the Series 4 Preferred Stock or warrants on any securities exchange. Without an active market, the liquidity of the Series 4 Preferred Stock and warrants will be limited.

Since we have broad discretion in how we use the proceeds from this offering, we may use the proceeds in ways in which you disagree.

We intend to use the net proceeds from this offering for general corporate purposes. See Use of Proceeds. We have not allocated specific amounts of the net proceeds from this offering for any specific purpose. Accordingly, our management will have significant flexibility in applying the net proceeds of this offering. You will be relying on the judgment of our management with regard to the use of the net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. It is possible that the net proceeds will be invested in a way that does not yield a favorable, or any, return for our company. The failure of our management to use the net proceeds effectively could have a material adverse effect on our business, financial condition, operating results and cash flow.

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Purchasers of Series 4 Preferred Stock and warrants who convert their Series 4 Preferred Stock into common stock or exercise their warrants for shares of common stock will incur immediate dilution.

Upon conversion or exercise of your shares of Series 4 Preferred Stock or warrants for shares of common stock, as the case may be, you will experience immediate and substantial dilution because the per share conversion price of your shares of Series 4 Preferred Stock and the exercise price of your warrants will be higher than the net tangible book value per share of the outstanding common stock immediately after this offering. In addition, you will experience dilution when we issue additional shares of common stock that we are permitted or required to issue under outstanding options and warrants and under our stock option plan or other employee or director compensations plans.

Holders of our Series 4 Preferred Stock or warrants will have no rights as a holder of common stock until they acquire common stock.

Until you acquire shares of common stock upon conversion or exercise of the Series 4 Preferred Stock and warrants, as the case may be, you will have no rights with respect to our common stock, other than the right of the convertible preferred stock to receive dividends equal to and in the same term as dividends actually paid on common stock, including rights to vote or respond to tender offers. Upon conversion or exercise of your Series 4 Preferred Stock or warrants, as the case may be, you will be entitled to exercise the rights of a holder of common stock only as to matters for which the record date occurs after the conversion or exercise date.

Risks Related to Holders of our Common Stock

Shares of common stock are equity securities and are subordinate to our existing and future indebtedness.

Shares of our common stock are common equity interests. This means that our common stock ranks junior to any preferred stock that we may issue in the future, to our indebtedness, and to all creditor claims and other non-equity claims against us and our assets available to satisfy claims on us, including claims in a bankruptcy or similar proceeding. Our existing and future indebtedness may restrict payment of dividends on our common stock.

Additionally, unlike indebtedness, where principal and interest customarily are payable on specified due dates, in the case of our common stock, (i) dividends are payable only when and if declared by our board of directors or a duly authorized committee of our board of directors, and (ii) as a corporation, we are restricted to making dividend payments and redemption payments out of legally available assets. We have never paid a dividend on our common stock and have no current intention to pay dividends in the future. Further, our common stock places no restrictions on our business or operations or on our ability to incur indebtedness or engage in any transactions, subject only to the voting rights available to shareholders generally.

The market price of shares of our common stock may be adversely affected by market conditions affecting the stock markets in general, including price and trading fluctuations on The NASDAQ Capital Market.

The market price of our common stock may be adversely affected by market conditions affecting the stock markets in general, including price and trading fluctuations on The NASDAQ Capital Market. These conditions may result in (i) volatility in the level of, and fluctuations in, the market prices of stocks generally and, in turn, our shares of common stock, and (ii) sales of substantial amounts of our common stock in the market, in each case that could be unrelated or disproportionate to changes in our operating performance.

There may be future sales or other dilution of our equity, which may adversely affect the market price of our shares of common stock.

We are not restricted from issuing additional shares of common stock or preferred stock, including any securities that are convertible into or exchangeable for, or that represent the right to receive, shares of common stock or preferred stock or any substantially similar securities. The market price of our shares of common stock or preferred stock could decline as a result of sales of a large number of shares of our common stock or preferred stock or similar securities in the market after consummation of this offering or the perception that such sales could occur in the future. In addition, we are asking our shareholders to approve an amendment to our amended and restated articles of incorporation to increase the total number of authorized shares of our stock from 810,000,000 shares to 1,210,000,000 shares and to increase the total number of our authorized shares of common stock from 800,000,000 to 1,200,000,000 shares of common stock at a Special Meeting of Shareholders to be held on April 9, 2010. If our shareholders approve the amendment, we would have a substantial number of additional shares of common stock that could be issued.

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The market price for our shares of common stock is extremely volatile, which may affect our ability to raise capital in the future and may subject the value of your investment in our securities to sudden decreases.

The market price for securities of biopharmaceutical and biotechnology companies, including ours, historically has been highly volatile, and the market from time to time has experienced significant price and volume fluctuations that are unrelated to the operating performance of such companies. For example, during the twelve month period ended March 30, 2010, our stock price has ranged from a low of \$0.12 to a high of \$2.23. Fluctuations in the trading price or liquidity of our common stock may adversely affect the value of your investment in our common stock.

Factors that may have a significant impact on the market price and marketability of our securities include:

announcements by us or others of results of preclinical testing and clinical trials and regulatory actions;

announcements of technological innovations or new commercial therapeutic products by us, our collaborative partners or our present or potential competitors;

our issuance of additional debt, equity or other securities, which we need to pursue in 2010 to generate additional funds to cover our current debt and operating expenses;

our quarterly operating results;

developments or disputes concerning patent or other proprietary rights;

developments in our relationships with collaborative partners;

acquisitions or divestitures;

litigation and government proceedings;

adverse legislation, including changes in governmental regulation;

third-party reimbursement policies;

changes in securities analysts' recommendations;

short selling;

changes in health care policies and practices;

halting or suspension of trading in our common stock by NASDAQ, CONSOB or the Borsa Italiana;

economic and other external factors; and

general market conditions.

In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been instituted. For example, in the case of our company, beginning in March 2005, several class action lawsuits were instituted against us and certain of our directors and officers and a derivative action lawsuit was filed against our full board of directors. While these lawsuits were dismissed with prejudice, as a result of these types of lawsuits, we could incur substantial legal fees and our management's attention and resources could be diverted from operating our business as we respond to the litigation. We maintain significant insurance to cover these risks for us and our directors and officers, but our insurance is subject to high deductibles to reduce premium expense, and there is no guarantee that the insurance will cover any specific claim that we may face in the future, or that it will be adequate to cover all potential liabilities and damages.

Anti-takeover provisions in our charter documents, in our Shareholder Rights Plan, or Rights Plan, and under Washington law could make removal of incumbent management or an acquisition of us, which may be beneficial to our shareholders, more difficult.

Provisions of our amended and restated articles of incorporation and amended and restated bylaws may have the effect of deterring or delaying attempts by our shareholders to remove or replace management, to commence proxy contests, or to effect changes in control. These provisions include:

a classified board of directors so that only approximately one third of our board of directors is elected each year;

elimination of cumulative voting in the election of directors;

procedures for advance notification of shareholder nominations and proposals;

the ability of our board of directors to amend our amended and restated bylaws without shareholder approval; and

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the ability of our board of directors to issue shares of preferred stock without shareholder approval upon the terms and conditions and with the rights, privileges and preferences as the board of directors may determine.

Pursuant to our Rights Plan, an acquisition of 20% or more of our common stock could result in the exercisability of the preferred stock purchase right accompanying each share of our common stock (except those held by a 20% shareholder, which become null and void), thereby entitling the holder to receive upon exercise, in lieu of a number of units of preferred stock, that number of shares of our common stock having a market value of two times the exercise price of the right. The existence of our Rights Plan could have the effect of delaying, deferring or preventing a third party from making an acquisition proposal for us and may inhibit a change in control that some, or a majority, of our stockholders might believe to be in their best interest or that could give our stockholders the opportunity to realize a premium over the then-prevailing market prices for their shares.

In addition, as a Washington corporation, we are subject to Washington law which imposes restrictions on some transactions between a corporation and certain significant shareholders. These provisions, alone or together, could have the effect of deterring or delaying changes in incumbent management, proxy contests or changes in control.

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USE OF PROCEEDS

We estimate that the net proceeds of this offering, after deducting placement agent fees and our estimated offering expenses, and excluding the proceeds, if any, from the exercise of the warrants issued in this offering, will be approximately \$18.5 million.

We currently intend to use the net proceeds from this offering for working capital and for general corporate purposes, which may include, among other things, paying interest on and/or retiring portions of our outstanding debt, funding research and development, preclinical and clinical trials, the preparation and filing of new drug applications and general working capital. Set forth below are details of certain of our outstanding indebtedness that we may retire, in whole or in part, with the net proceeds from this offering (principal amounts as of December 31, 2009):

our approximately \$40.4 million 4% Convertible Senior Subordinated Notes due 2010 mature on July 1, 2010;

our approximately \$10.3 million 7.5% Convertible Senior Notes due 2011 mature on April 30, 2011; and

our approximately \$10.9 million 5.75% Convertible Senior Notes due 2011 mature on December 15, 2011.

We cannot estimate precisely the allocation of the net proceeds from this offering among these uses. The amounts and timing of the expenditures may vary significantly, depending on numerous factors, including the progress of our clinical trials and other development efforts, as well as the amount of cash used in our operations. Accordingly, our management will have broad discretion in the application of the net proceeds of this offering. We reserve the right to change the use of proceeds as a result of certain contingencies such as competitive developments, opportunities to acquire technologies or products and other factors. Pending the uses described above, we may temporarily invest the net proceeds of this offering in short- and medium-term interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

DETERMINATION OF OFFERING PRICE

Prior to this offering, there was no public market for the Series 4 Preferred Stock or warrants. The terms and conditions of the Series 4 Preferred Stock, including the dividend rate and the conversion price, and the warrants, including the exercise price, were determined by negotiation by us and the placement agent. The principal factors considered in determining these terms and conditions include:

the market price of our common stock;

the information set forth in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference, and otherwise available to the placement agent;

our history and prospects and the history of, and prospects for, the industry in which we compete;

our past and present financial performance and an assessment of our management;

our prospects for future earnings and the present state of our development;

the general condition of the securities markets at the time of this offering;

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the recent market prices of, and demand for, publicly traded common stock of generally comparable companies; and

other factors deemed relevant by the placement agent and us.

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The following table sets forth our ratio of earnings to combined fixed charges and preferred stock dividends for each of the periods indicated:

| | Year ended December 31, | | | | |
|---|-------------------------|------|------|------|------|
| | 2009 | 2008 | 2007 | 2006 | 2005 |
| Ratio of earnings to combined fixed charges and preferred stock dividends (1) | | | | | |

- (1) Earnings were not sufficient to cover combined fixed charges and preferred stock dividends. Earnings consist of income (loss) before provision for income taxes plus fixed charges. Fixed charges consist of interest charges and that portion of rental payments under operating leases we believe to be representative of interest. Earnings for the years ended December 31, 2009, 2008, 2007, 2006 and 2005, were insufficient to cover fixed charges, and fixed charges and preferred stock dividends, by \$116.8, \$202.9, \$148.3, \$135.8 and \$102.5 (in millions), respectively. For this reason, no ratios are provided for these periods.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our common stock and do not currently anticipate declaring or paying cash dividends on our common stock in the foreseeable future. We currently intend to retain all of our future earnings, if any, to finance operations. Any future determination relating to our dividend policy will be made at the discretion of our board of directors and will depend on a number of factors, including future earnings, capital requirements, financial conditions, future prospects, contractual restrictions and other factors that our board of directors may deem relevant.

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DESCRIPTION OF SERIES 4 PREFERRED STOCK

The material terms and provisions of the Series 4 Preferred Stock being offered pursuant to this prospectus supplement and the accompanying prospectus are summarized below. This summary is subject to, and qualified in its entirety by, the rights, preferences and privileges of the Series 4 Preferred Stock set forth in the articles of amendment to our amended and restated articles of incorporation to be filed as an exhibit to our Current Report on Form 8-K which we will file with the SEC in connection with this offering.

Rank

The Series 4 Preferred Stock will, with respect to dividend rights and rights upon our liquidation, dissolution or winding up, rank senior to our common stock and we may not redeem, purchase or otherwise acquire any material amount of common stock or other securities junior to the Series 4 Preferred Stock except for repurchases of up to 30,000,000 shares of common stock in any 12 month period from employees, officers, directors, consultants or others who perform services for the company and who are subject to an agreement with the company providing a right of repurchase of such shares at cost or on the occurrence of certain events, such as termination of employment.

Dividends

Holders of the Series 4 Preferred Stock are entitled to receive dividends on shares of the Series 4 Preferred Stock (on an as if converted to common stock basis) to and in the same form as dividends actually paid on shares of the common stock or other junior securities. All accrued but unpaid dividends on the Series 4 Preferred Stock shall increase the stated value of the Series 4 Preferred Stock, but when such dividends are actually paid such increase shall be rescinded.

Liquidation Preference

Upon our voluntary or involuntary dissolution, liquidation or winding up, holders of the Series 4 Preferred Stock will be entitled to receive the stated value of such holder's shares of Series 4 Preferred Stock plus any accrued and unpaid dividends and other payments that may be due on the shares before the holders of common stock or any other junior securities of the company receive any payments from such liquidation. In the event the amount available for payment of this liquidation preference is less than the full amount of the stated value of all shares of Series 4 Preferred Stock then outstanding, the assets to be distributed to the holders of the Series 4 Preferred Stock will be ratably distributed among such holders in accordance with the respective amounts that would be payable on such holder's shares if the liquidation preference was paid in full.

Conversion

The Series 4 Preferred Stock shall be convertible at the option of the holders thereof into registered shares of our common stock at anytime after the closing of the transaction into the number of shares of common stock determined by dividing the aggregate stated value of the Series 4 Preferred Stock being converted by the conversion price then in effect. The initial conversion price is \$0.50 and is subject to adjustment as described below. This right to convert is limited by the beneficial ownership limitation described below.

Beneficial Ownership Limitation

We may not effect any conversion and the holder may not request conversion of the Series 4 Preferred Stock if following such conversion the holder and its affiliates would beneficially own in excess of 4.99% of our common stock, provided that a holder may elect to increase the conversion threshold to 9.99% by providing us with 61 days' prior notice. The amount of beneficial ownership of the holder and its affiliates will be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations of that section.

Conversion Price Adjustment

Stock Dividends and Stock Splits. If we pay a stock dividend or otherwise make a distribution payable in shares of the common stock on the shares of the common stock or any common stock equivalents, subdivide or combine our outstanding common stock, or reclassify our common stock in such a way that we issue additional shares of capital stock of the company, the conversion price will be adjusted by multiplying the then existing conversion rate by a fraction the numerator of which is the number of shares outstanding immediately before the distribution, dividend, adjustment or recapitalization and the denominator of which is the number of shares outstanding immediately after such action.

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Rights Offerings. If we issue rights, options or warrants to holders of the common stock giving such holders a right to subscribe for or purchase shares of common stock at a price per share lower than the volume weighted average price of the common stock on the record date for such issuance and do not offer the same rights to the holders of the Series 4 Preferred Stock, the conversion price will be adjusted to reflect the rights offering by multiplying such conversion price by a fraction the numerator of which is the number of shares outstanding before such record date plus the number of shares which the aggregate offering price (assuming full subscription) would purchase at the value weighted average price of the common stock on such record date and the denominator of which is the number of shares of common stock outstanding on the record date plus the aggregate number of shares offered for subscription or purchase.

Pro Rata Distributions. If we distribute evidences of our indebtedness, assets (including cash or cash dividends), warrants or other rights to subscribe for our securities (other than common stock) to the holders of the common stock, then the conversion price will be adjusted by multiplying the conversion price in effect immediately prior to the record date for such distribution by a fraction the numerator of which is the volume weighted average price of the common stock on such record date minus the fair market value at such record date of the distributed evidence of indebtedness, asset, warrant or other right applicable to one share of common stock, such fair market value to be determined by the board in good faith, and the denominator of which is the volume weighted average price of the common stock on such record date.

Fundamental Transaction. If we effect a fundamental transaction (as defined below), then upon any future conversion of the Series 4 Preferred Stock, the holders will have the right to receive, for each share of common stock they would have received upon such conversion, the same kind and amount of securities, cash or property as such holder would have been entitled to receive in the transaction had it been the holder of a share of common stock immediately prior to the transaction. The term fundamental transaction means any of the following:

a merger or consolidation of the company with or into another entity;

the sale of all or substantially all of the assets of the company in one transaction or a series of related transactions;

any tender offer or exchange offer allowing holders of the common stock to tender or exchange their shares for cash, property or securities, regardless of who makes such offer; or

any reclassification of the common stock or any compulsory share exchange by which the common stock is effectively converted into or exchanged for other securities, cash or property.

If the holders of the common stock are given a choice as to the securities, cash or property to be received in a fundamental transaction, the holders of the Series 4 Preferred Stock will be given the same choice on conversion of such holder's shares.

Voting Rights

The Series 4 Preferred Stock shall have no voting rights, except to the extent expressly provided in our articles of incorporation or as otherwise required by law. However, so long as at least 4,000 shares of Series 4 Preferred Stock are outstanding, we cannot take any of the following actions without the affirmative consent of holders of a majority of the outstanding Series 4 Preferred Stock:

amend our articles of incorporation, bylaws or other charter documents so as to materially, specifically and adversely affect the rights of any holder with respect to the Series 4 Preferred Stock;

repay, repurchase or offer to repay or repurchase or otherwise acquire any of our common stock, common stock equivalents or securities junior to the Series 4 Preferred Stock except the repurchase of up to 30,000,000 shares of common stock in any 12-month period from employees, officers, directors, consultants or others performing services for the company or any of its subsidiaries under agreements approved by a majority of our board of directors or under which we have the option to repurchase such shares at cost or at cost on the occurrence of certain events such as termination of employment;

authorize or create any class of senior preferred stock with respect to dividend rights or liquidation preference; or

enter into any agreement or understanding to take any of the actions listed above.

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DESCRIPTION OF WARRANTS

The material terms and provisions of the warrants being offered pursuant to this prospectus supplement and the accompanying prospectus are summarized below. This summary is subject to, and qualified in its entirety by, the terms set forth in the Common Stock Purchase Warrant to be filed as an exhibit to our Current Report on Form 8-K, which we expect to file with the SEC in connection with this offering.

General

The warrants will be exercisable six months and one day after the date of issuance and will expire four years and one day after the date of issuance. The warrants will be exercisable, at the option of the holder, upon the surrender of the warrants to us and the payment in cash of the exercise price of the shares of common stock being acquired upon exercise of the warrants. However, if at the time of exercise there is no effective registration statement registering the issuance of the shares of common stock issuable upon exercise of the warrants to the holder and all such shares are not then registered for resale by the holder, the holder may exercise the warrants by means of a cashless exercise or net exercise. The warrants will not be listed on any national securities exchange.

The exercise price per share of common stock purchasable upon exercise of the warrants is \$0.6029 per share of common stock being purchased. The exercise price is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock. The holders of the warrants are entitled to 20 days' notice before the record date for certain distributions to holders of our common stock. If certain fundamental transactions occur, such as a merger, consolidation, sale of substantially all of our assets, tender offer or exchange offer with respect to our common stock or reclassification of our common stock, the holders of the warrants will be entitled to receive thereafter in lieu of our common stock, the consideration (if different from common stock) that the holders of the warrants would have been entitled to receive upon the occurrence of the fundamental transaction as if the warrant had been exercised immediately before the fundamental transaction. If any holder of common stock is given a choice of consideration to be received in the fundamental transaction, then the holders of the warrants shall be given the same choice upon the exercise of the warrants following the fundamental transaction. In addition, upon the occurrence of certain fundamental transactions, such as an all cash transaction, a transaction involving an entity not traded on a national securities exchange or a Rule 13e-3 transaction (as defined in Rule 13e-3 under the Exchange Act), in each case in which we are not the successor entity, the holders of the warrants, at their option, will be entitled to receive the Black Scholes value of the warrants as of the time of any such fundamental transaction as determined in accordance with the terms of the warrants.

As of March 26, 2010, other warrants to purchase approximately 32.6 million shares of common stock are outstanding.

Beneficial Ownership Limitation

No holder may exercise its warrants to the extent that the exercise would result in the holder and its affiliates beneficially owning 4.99% or more of our common stock, provided that a holder may elect to increase the exercise threshold to 9.99% by providing us with 61 days' prior notice. The amount of beneficial ownership of the holder and its affiliates will be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations of that section.

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DESCRIPTION OF CAPITAL STOCK

This summary does not purport to be complete and is subject to, and qualified in its entirety by, the provisions of our amended and restated articles of incorporation, our bylaws, as amended, and all applicable provisions of Washington law.

General

We are authorized to issue 800,000,000 shares of common stock, no par value, and 10,000,000 shares of preferred stock, no par value. As of March 26, 2010, there were 615,423,905 shares of common stock outstanding, warrants to purchase approximately 32.6 million shares of common stock outstanding, and no shares of preferred stock outstanding.

On April 15, 2007, we effected a 1-for-4 reverse stock split of our common stock and on August 31, 2008, we effected a 1-for-10 reverse stock split of our common stock.

At a Special Meeting of Shareholders to be held on April 9, 2010, we are asking our shareholders to approve an amendment to our amended and restated articles of incorporation to increase the total number of authorized shares of our stock from 810,000,000 shares to 1,210,000,000 shares and to increase the total number of our authorized shares of common stock from 800,000,000 to 1,200,000,000 shares of common stock. We cannot provide any assurance that the proposed amendment will be approved.

Common Stock

Each holder of common stock is entitled to one vote for each share held on all matters to be voted upon by the shareholders and there are no cumulative voting rights. Subject to preferences that may be applicable to any outstanding preferred stock, holders of common stock are entitled to receive ratably the dividends, if any, that are declared from time to time by the board of directors out of funds legally available for that purpose. In the event of our liquidation, dissolution or winding up, the holders of common stock are entitled to share in our assets remaining after the payment of liabilities and the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock. Holders of common stock have no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are fully paid and nonassessable. The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate in the future.

General Description of Preferred Stock

Our board of directors has the authority, without action by the shareholders, to designate and issue preferred stock in one or more series and to designate the rights, preferences and privileges of each series, which may be greater than the rights of the common stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock upon the rights of holders of the common stock until our board of directors determines the specific rights of the holders of this preferred stock. However, the effects might include, among other things:

restricting dividends on the common stock;

diluting the voting power of the common stock;

impairing the liquidation rights of the common stock; or

delaying or preventing a change in control of the Company without further action by the shareholders.

Anti-Takeover Effects of Provisions of Washington Law, Our Charter and Bylaws and Our Rights Plan

Washington law contains certain provisions that may have the effect of delaying, deterring or preventing a change in control of the Company. Chapter 23B.19 of the Washington Business Corporation Act prohibits us, with certain exceptions, from engaging in certain significant business

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transactions with an acquiring person (defined as a person or group of persons who acquire 10% or more of our voting securities without the prior approval of the our board of directors) for a period of five years following the acquiring person's share acquisition date. The prohibited transactions include, among others, a merger or consolidation with, disposition of assets to, or issuance or redemption of stock to or from, the acquiring person, or otherwise allowing the acquiring person to receive a disproportionate benefit as a shareholder. Exceptions to this statutory prohibition include approval of the transaction at a shareholders meeting by holders of not less than a two-thirds of the shares held by each voting group entitled to vote on the transaction, not counting shares as to which the acquiring person has beneficial ownership or voting control, transactions approved by our board of directors prior to the acquiring person first becoming an acquiring person, or, with respect to a merger, share exchange, consolidation, liquidation or distribution entered into with the acquiring person, transactions where certain other requirements regarding the fairness of the consideration to be received by the shareholders have been met. We may not exempt ourselves from coverage of this statute. These statutory provisions may have the effect of delaying, deterring or preventing a change in control of the Company.

Our board of directors is divided into three approximately equal classes of directors serving staggered three-year terms. In addition, our amended and restated articles of incorporation provide that directors may be removed from office only at a meeting of the shareholders called expressly for that purpose and only for cause. Our amended and restated articles of incorporation limit cause to willful misfeasance having a material adverse effect on us or conviction of a felony, provided

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that any action by a director shall not constitute cause if, in good faith, the director believed the action to be in or not opposed to our best interests or if the director is entitled to be indemnified with respect to such action under applicable law, our amended and restated articles of incorporation or amended and restated bylaws, or a contract with us. Further, our amended and restated bylaws require a shareholder to provide notice to us of such shareholder's intention to nominate a person or persons for election as directors not later than 90 days prior to the first anniversary of the previous year's annual meeting or, in the case of an election to be held at a special meeting of the shareholders for the election of directors, the close of business on the tenth day following the date on which notice of such meeting is first given to shareholders. A shareholder must also provide us with notice of such shareholder's intent to make any proposal at an annual meeting of shareholders not later than 90 days prior to the first anniversary of the previous year's annual meeting of shareholders. These may have the effect of deterring hostile takeovers or delaying change in control of our management.

In connection with our Rights Plan one preferred stock purchase right was distributed for each common share held as of the close of business on January 7, 2010. Initially, the rights are not exercisable, and are attached to and trade with, all of the shares of our common stock outstanding as of, and issued subsequent to, the record date. Each right, if and when it becomes exercisable, will entitle the holder to purchase one ten-thousandth of a share of a new series of junior participating cumulative preferred stock for \$6.00, subject to standard adjustment in the Rights Plan. The rights will become exercisable for our preferred stock if a person or group acquires 20% or more of our common stock. Upon acquisition of 20% or more of our common stock, the board of directors could decide that each right (except those held by a 20% shareholder, which become null and void) would become exercisable, entitling the holder to receive upon exercise, in lieu of a number of units of preferred stock, that number of shares of our common stock having a market value of two times the exercise price of the right. In certain circumstances, including if there are insufficient shares of our common stock to permit the exercise in full of the rights, the holder may receive units of preferred stock, other securities, cash or property, or any combination of the foregoing.

If we are acquired in a merger or other business combination transaction after any such event, each holder of a right, except those held by a 20% shareholder, which become null and void, would then have the right to receive, upon exercise, common stock of the acquiring company having a market value equal to two times the exercise price of the right.

The board of directors may redeem the rights for \$0.0001 per right or terminate the Rights Plan at any time prior to an acquisition by a person or group holding 20% or more of our common stock. The Rights Plan will expire on January 7, 2013.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Investor Services, LLC.

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CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS

All purchasers of Series 4 Preferred Stock and warrants are advised to consult their own tax advisors regarding the federal, state, local and foreign tax consequences of the purchase, ownership, conversion and disposition of Series 4 Preferred Stock and warrants and the ownership and disposition of shares of common stock issuable upon conversion or exercise of Series 4 Preferred Stock or warrants, as the case may be, in their particular situations.

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Table of Contents**PLAN OF DISTRIBUTION**

We are offering through Rodman & Renshaw, LLC, who acted as our sole placement agent in connection with this offering, or the placement agent, 20,000 shares of Series 4 Preferred Stock and warrants to purchase up to 20,000,000 shares of common stock (and the 60,000,000 shares of common stock issuable from time to time upon conversion of the Series 4 Preferred Stock and exercise of the warrants). The purchase price for each share of Series 4 Preferred Stock and a warrant to purchase 1,000 shares of common stock is \$1,000. In connection with this offering, we will pay fees to the placement agent. The placement agent will be working solely on a reasonable best efforts basis and is not purchasing or selling any securities offered by this prospectus supplement or the accompanying prospectus, nor is it required to arrange for the purchase and sale of any specific number or dollar amount of securities. Therefore, we may not sell the entire amount of Series 4 Preferred Stock and warrants offered pursuant to this prospectus supplement.

We currently anticipate that closing of the sale of Series 4 Preferred Stock and warrants will occur on April 6, 2010.

On March 30, 2010, we entered into a letter agreement with the placement agent to serve as exclusive placement agent for purchasers of our securities for a period of 10 days. Pursuant to the letter agreement, we will pay the placement agent at closing a cash fee equal to 5% of the aggregate gross proceeds raised in this offering. The following table shows the per share of Series 4 Preferred Stock and warrant total fees we will pay to the placement agent assuming all of the Series 4 Preferred Stock and warrants offered by this prospectus supplement are issued and sold by us.

| Placement Agent Fees | Per share of Series 4 Preferred Stock and warrant | | Total |
|--|--|----|--------------|
| Offering price per share of Series 4 Preferred Stock and warrant | \$ | 50 | \$ 1,000,000 |

Because there is no minimum offering amount required as a condition to closing, the actual total may be less than the total set forth above.

We have also agreed to pay or reimburse the placement agent for expenses incurred in connection with the offering, up to the lesser of \$25,000 or 1.6% of the aggregate gross proceeds received by us in this offering. The estimated offering expenses payable by us, excluding the placement agency fee, are \$525,000, which include legal, accounting and printing costs, and various other fees associated with registering and listing the shares of common stock issuable from time to time upon conversion of the Series 4 Preferred Stock or exercise of the warrants. The estimated offering expenses also include a cash fee equal to 1% of the aggregate gross proceeds received by us in the offering and payable at closing to Trout Capital LLC for financial advisory services.

We have agreed to indemnify the placement agent against certain liabilities, including liabilities under the Securities Act. We may also be required to contribute to payments the placement agent may be required to make in respect of such liabilities.

The agreement with the placement agent and the purchase agreement with the Initial Purchasers will be included as exhibits to a Current Report on Form 8-K that will be filed with the SEC in connection with this offering.

We are subject to a lock-up agreement for a period of 30 days following the date of this prospectus supplement. Pursuant to the lock-up agreement, we have agreed that neither we nor any subsidiary will, without the prior consent of the Initial Purchasers, (i) directly or indirectly, issue, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase or otherwise transfer or dispose of any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock or file any registration statement under the Securities Act (other than a Registration Statement on Form S-8) with respect to any of the foregoing, or (ii) enter into any swap or any other agreement or any transaction that transfers, in whole or in part, directly or indirectly, the economic consequence of ownership of our common stock, whether any such swap or transaction described in clause (i) or (ii) above is to be settled by delivery of common stock or such other securities, in cash or otherwise. The lock-up agreement does not apply to (a) the Series 4 Preferred Stock and warrants to be issued and sold hereunder or issuable upon conversion or exercise thereof, (b) issuances of shares of common stock upon the exercise of warrants issued to the placement agent, (c) issuances of shares of common stock issuable upon conversion of currently outstanding convertible notes, (d) issuances of shares of common stock upon the exercise of currently outstanding warrants or amendments to the warrant agreements related thereto, (e) granting options under our incentive compensation plans existing on the date hereof or issuances of shares of common stock issuable in connection with outstanding awards thereunder as of the date hereof, (f) issuances of shares of common stock issuable pursuant to agreements

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in effect as of the date hereof or amendments related thereto, (g) issuances of shares of common stock in connection with strategic acquisitions or (h) issuances of shares of common stock subject to shareholder approval, provided however, that in the case of clauses (c) and (d) above, no shares of common stock shall be issued as a result of an amendment to such securities after the date hereof and prior to the expiration of the 30 day lock-up period. In addition, the lock-up agreement does not apply to issuances of shares of common stock issuable upon exchange of currently outstanding convertible notes, provided, however, that no such exchange shall occur prior to 15 days following the date of this prospectus supplement.

Rodman & Renshaw, LLC may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act, and any commissions received by them and any profit realized on the resale of the securities sold by them while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. As underwriters, the placement agent would be required to comply with the requirements of the Securities Act and the Exchange Act, including, without limitation, Rule 415(a)(4) under the Securities Act and Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of shares of common stock and warrants by the placement agent. Under these rules and regulations, the placement agent:

may not engage in any stabilization activity in connection with our securities; and

may not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until it has completed its participation in the distribution.

The placement agent has informed us that it does not intend to engage in overallotment, stabilizing transactions or syndicate covering transactions in connection with this offering.

A prospectus supplement and the accompanying prospectus in electronic format may be made available on the websites maintained by the placement agent and the placement agent may distribute the prospectus supplement and the accompanying prospectus electronically.

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LEGAL MATTERS

Certain legal matters in connection with the securities offered hereby will be passed upon for us by O Melveny & Myers LLP of San Francisco, California. Certain legal matters relating to Washington law will be passed upon for us by Karr Tuttle Campbell of Seattle, Washington. Weinstein Smith LLP of New York, New York is acting as counsel for the placement agent.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

SEC rules allow us to incorporate by reference into this prospectus much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus is considered to be part of this prospectus. This prospectus incorporates by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act (in each case, other than those documents or the portions of those documents not deemed to be filed) until the offering of the securities under the registration statement is terminated or completed:

our Annual Report on Form 10-K for the fiscal year ended December 31, 2009;

our Current Reports on Form 8-K filed on January 19, 2010 (Items 1.01, 3.03 and 5.02 only), February 9, 2010 (Item 8.01 only), February 22, 2010, March 3, 2010 (Item 8.01 only), March 5, 2010 and March 22, 2010 (Item 8.01 only); and

the description of our capital stock contained in our Registration Statements on Form 10 filed on June 27, 1996, as amended. Because we are incorporating by reference future filings with the SEC, this prospectus is continually updated and those future filings may modify or supersede some of the information included or incorporated by reference in this prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus or in any document previously incorporated by reference have been modified or superseded.

You may request a copy of these filings, at not cost, by writing or telephoning us at the following address:

Cell Therapeutics, Inc.

501 Elliott Avenue West, Suite 400

Seattle, Washington 98119

(206) 282-7100

Attention: Investor Relations

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PROSPECTUS

Making cancer more treatable

Common Stock

Preferred Stock

Warrants

From time to time, we may offer and sell in one or more offerings:

shares of our common stock;

shares of our preferred stock; and

warrants to purchase common stock, preferred stock and/or debt securities.

We may offer these securities in amounts, at prices and on terms determined at the time of each offering thereof. Each time we offer securities using this prospectus, we will provide specific terms of the securities and the offering in one or more supplements to this prospectus. The prospectus supplements may also add, update or change the information in this prospectus and will also describe the specific manner in which we will offer the securities.

This prospectus may not be used to sell securities unless accompanied by a prospectus supplement. You should carefully read this prospectus and any accompanying prospectus supplement, including the information incorporated by reference, prior to investing in any of our securities.

Our common stock is quoted on The NASDAQ Capital Market and on the MTA stock market in Italy under the symbol CTIC . On August 18, 2009, the last reported sale price of our common stock on The NASDAQ Capital Market was \$1.57.

We do not expect our preferred stock or warrants to be listed on any securities exchange or over-the-counter market unless otherwise described in the applicable prospectus supplement.

Investing in our securities involves a high degree of risk. See the Risk Factors section contained in the applicable prospectus supplement and in the documents we incorporate by reference in this prospectus to read about factors you should consider before investing in our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is August 19, 2009

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, utilizing a shelf registration process. Under the shelf registration process, we may, from time to time, sell common stock, preferred stock or warrants, or any combination of these securities, in one or more offerings. There is no limit on the aggregate amount of the securities described in this prospectus that we may sell pursuant to the registration statement.

This prospectus provides you with a general description of the securities we may offer. Each time we sell any securities under this prospectus, we will provide a prospectus supplement that will contain more specific information about the terms of that offering, including the specific amounts, prices and terms of the securities offered. Any prospectus supplement may also add, update or change information contained in this prospectus. You should read this prospectus, any prospectus supplement, any documents that we incorporate by reference in this prospectus and any prospectus supplement, and the additional information described below under **Where You Can Find More Information** before making an investment decision. You should rely only on the information contained or incorporated by reference in this prospectus and any prospectus supplement. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

You should not assume that the information in this prospectus, any prospectus supplement or any documents we incorporate by reference is accurate as of any date other than the date on the front of those documents only. Our business, financial condition, results of operations and prospectus may have changed since those dates.

This prospectus contains and incorporates by reference market data, industry statistics and other data that have been obtained from, or compiled from, information made available by third parties. We have not independently verified their data.

In this prospectus, the terms **CTI**, **Company**, **we**, **us**, **our** and similar terms refer to Cell Therapeutics, Inc., a Washington corporation, and its subsidiaries, unless the context otherwise requires.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the information requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act. In accordance with the Exchange Act, we file reports, proxy statements and other information with the SEC. Such reports, proxy statements and other information filed by us are available to the public free of charge at www.sec.gov. Copies of certain information filed by use with the SEC are also available on our website at www.celltherapeutics.com. You may also read and copy any document we file at the public reference facilities maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the public reference facilities by calling the SEC at 1-800-SEC-0330.

Because our common stock is listed on The NASDAQ Capital Market, you may also inspect such reports, proxy statements and other information concerning us at the offices of The NASDAQ Stock Market, 1735 K Street, N.W., Washington, D.C. 20006.

This prospectus is part of a registration statement we filed with the SEC. This prospectus omits some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits in the registration statement for further information about us and the securities we are offering. Statements in this prospectus concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings. You should review the complete document to evaluate these statements.

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INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

SEC rules allow us to incorporate by reference into this prospectus much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus is considered to be part of this prospectus. This prospectus incorporates by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act (in each case, other than those documents or the portions of those documents not deemed to be filed) until the offering of the securities under the registration statement is terminated or completed:

our Annual Report on Form 10-K for the fiscal year ended December 31, 2008;

our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2009;

our Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2009;

our definitive Proxy Statement on Schedule 14A for a Special Meeting of Shareholders, dated and filed with the SEC on January 14, 2009, as amended by Amendment No. 1 to the definitive Proxy Statement on Schedule 14A, dated as of February 4, 2009 and filed with the SEC on February 5, 2009 and Definitive Additional Materials filed with the SEC on January 26, 2009, February 27, 2009 and March 9, 2009;

our Soliciting Material on Schedule 14A for our 2009 Annual Meeting of Shareholders, dated and filed with the SEC on July 29, 2009, as amended by our Soliciting Material on Schedule 14A, dated and filed with the SEC on August 10, 2009;

our Current Reports on Form 8-K filed on January 6, 2009, January 8, 2009, January 29, 2009, February 9, 2009, February 23, 2009, March 6, 2009, March 16, 2009 (Items 1.01 and 2.01 only), March 27, 2009, April 13, 2009, April 14, 2009, April 17, 2009, May 12, 2009 (Item 1.01 only), May 15, 2009, May 20, 2009, May 28, 2009, May 29, 2009, June 10, 2009, June 26, 2009, July 7, 2009, July 28, 2009 and August 7, 2009; and

the description of our capital stock contained in our Registration Statement on Form 10 filed with the SEC on June 27, 1996, including any amendment or reports filed for the purpose of updating that description.

Because we are incorporating by reference future filings with the SEC, this prospectus is continually updated and those future filings may modify or supersede some of the information included or incorporated by reference in this prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus or in any document previously incorporated by reference have been modified or superseded.

You may request a copy of these filings, at not cost, by writing or telephoning us at the following address:

Cell Therapeutics, Inc.

501 Elliott Avenue West, Suite 400

Seattle, Washington 98119

(206) 282-7100

Attention: Investor Relations

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, any prospectus supplement and any documents we incorporate by reference herein or therein may contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Exchange Act. All statements other than statements of historical fact are forward-looking statements for purposes of these provisions, including:

any projections of cash resources, revenues, operating expenses or other financial terms;

any statements of the plans and objectives of management for future operations or programs;

and statements concerning proposed new products or services;

any statements regarding future operations, plans, regulatory filings or approvals;

any statements on plans regarding proposed or potential clinical trials or new drug filing strategies or timelines;

any statements regarding pending or future mergers or acquisitions; and

any statements regarding future economic conditions or performance, and any statement of assumptions underlying any of the foregoing.

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In some cases, forward-looking statements can be identified by terms such as anticipates, believes, continue, could, estimates, expects, plans, potential, predicts, should or will or the negative thereof or other comparable terms. Such statements are based on management's current expectations and are subject to risks and uncertainties which may cause actual results to differ materially from those set forth in the forward-looking statements. There can be no assurance that such expectations or any of the forward-looking statements will prove to be correct, and actual results could differ materially from those projected or assumed in the forward-looking statements. Our future financial condition and results of operations, as well as any forward-looking statements, are subject to inherent risks and uncertainties, including, but not limited to, the risk factors described in the section of this prospectus entitled Risk Factors and in the documents incorporated herein by reference. All forward-looking statements and reasons why results may differ included in this prospectus are made as of the date hereof, and we assume no obligation to update any such forward-looking statement or reason why actual results might differ, except to the extent required by law.

Table of Contents**RATIO OF EARNINGS TO COMBINED FIXED CHARGES AND PREFERRED STOCK DIVIDENDS**

The following table sets forth our ratio of earnings to combined fixed charges and preferred stock dividends, for each of the periods indicated:

| | Six months ended June 30, | | Year ended December 31, | | | | |
|---|------------------------------|------|-------------------------|------|------|------|------|
| | 2009 | 2008 | 2008 | 2007 | 2006 | 2005 | 2004 |
| Ratio of earnings to combined fixed charges and preferred stock dividends (1) | | | | | | | |

- (1) Earnings were not sufficient to cover combined fixed charges and preferred stock dividends. Earnings consist of income (loss) before provision for income taxes plus fixed charges. Fixed charges consist of interest charges and that portion of rental payments under operating leases we believe to be representative of interest. Earnings for the six months ended June 30, 2009 and 2008, and for the years ended December 31, 2008, 2007, 2006, 2005 and 2004, were insufficient to cover fixed charges, and fixed charges and preferred stock dividends, by \$40.6, \$113.9, \$202.9, \$148.3, \$135.8, \$102.5 and \$252.3 (in millions), respectively. For this reason, no ratios are provided for these periods.

USE OF PROCEEDS

We intend to use the net proceeds from the sale of our securities for general corporate purposes, unless we state otherwise in a prospectus supplement. We may temporarily invest funds that we do not immediately use in short- and medium-term marketable securities.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our common stock and do not currently anticipate declaring or paying cash dividends on our common stock in the foreseeable future. We currently intend to retain all of our future earnings, if any, to finance operations. Any future determination relating to our dividend policy will be made at the discretion of our board of directors and will depend on a number of factors, including future earnings, capital requirements, financial conditions, contractual restrictions and other factors that our board of directors may deem relevant.

LEGAL MATTERS

Certain legal matters in connection with the securities offered hereby will be passed upon for us by O Melveny & Myers LLP, San Francisco, California.

EXPERTS

Stonefield Josephson, Inc., an independent registered public accounting firm, has audited our consolidated financial statements and consolidated financial statement schedule at December 31, 2008, and for each of the three years in the period ended December 31, 2008, included in our Annual Report on Form 10-K for the year ended December 31, 2008, as set forth in its report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Such consolidated financial statements and consolidated financial statement schedule are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.