

CELL THERAPEUTICS INC
 Form 424B5
 January 13, 2011
Table of Contents

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 8 Non-Convertible Preferred Stock, no par value per share	\$ 25,000,000	\$2,903
Warrants to purchase shares of common stock, no par value per share, and underlying shares of common stock, no par value per share	\$ 8,750,000 ⁽³⁾	\$1,016 ⁽⁴⁾
Additional Investment Right to purchase shares of Series 9 Convertible Preferred Stock, no par value per share, underlying shares of Series 9 Convertible Preferred Stock, and underlying shares of common stock, no par value per share	\$ 25,000,000 ⁽³⁾	\$2,903 ⁽⁵⁾
Total	\$ 58,750,000	\$6,822

- (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 416 under the Securities Act, the common stock issuable upon exercise of the warrants and conversion of the Series 9 Convertible Preferred Stock covered by this registration statement shall be deemed to include additional shares of common stock to be offered to prevent dilution resulting from stock splits, stock dividends or similar transactions. Adjustments to the exercise price and conversion price resulting in the issuance of additional shares of common stock that are not addressed by Rule 416 will be covered by a separate registration statement. The shares of common stock include associated preferred stock purchase rights under the registrant's rights plan.
- (4) Pursuant to Rule 457(i) under the Securities Act, the filing fee is calculated based on the price at which the warrants may be exercised.
- (5) Pursuant to Rule 457(i) under the Securities Act, the filing fee is calculated based on the price at which the Additional Investment Right may be exercised.

Table of Contents

PROSPECTUS SUPPLEMENT

(to Prospectus dated August 19, 2009)

CELL THERAPEUTICS, INC.

25,000 Shares of Series 8 Non-Convertible Preferred Stock

Warrants to Purchase 22,563,177 Shares of Common Stock

Additional Investment Right to Purchase 25,000 Shares of Series 9 Convertible Preferred Stock

25,000 Shares of Series 9 Convertible Preferred Stock

64,466,219 Shares of Common Stock

Pursuant to this prospectus supplement and the accompanying prospectus, we are offering to an institutional accredited investor, or the Initial Purchaser:

up to 25,000 shares of Series 8 Non-Convertible Preferred Stock, or the Series 8 Preferred Stock;

warrants to purchase up to 22,563,177 shares of common stock, or the warrants (and the 22,563,177 shares of common stock issuable from time to time upon exercise of the warrants); and

the additional investment right to purchase up to 25,000 shares of Series 9 Convertible Preferred Stock, or the additional investment right (and the 25,000 shares of Series 9 Convertible Preferred Stock, or the Series 9 Preferred Stock, issuable from time to time upon exercise of the additional investment right and the 64,466,219 shares of common stock issuable from time to time upon conversion of the Series 9 Preferred Stock).

The purchase price for each share of Series 8 Preferred Stock is \$1,000. The shares of Series 8 Preferred Stock will accrue annual dividends at the rate of 10% from the date of issuance, payable in additional shares of Series 8 Preferred Stock. The shares of Series 8 Preferred Stock are redeemable at our option at any time after issuance, in whole or in part, either in cash or by offset against recourse notes fully secured with marketable securities, which are issued by the Initial Purchaser to us, or recourse notes.

In consideration for the purchase of the Series 8 Preferred Stock, the Initial Purchaser will receive the warrants. Each warrant to purchase shares of our common stock will have an exercise price of \$0.3878 per share of common stock. The warrants are exercisable immediately and expire two years from the date of issuance. The exercise price of the warrants may be paid in cash or through the issuance by the Initial Purchaser to us of recourse notes. The warrants are subject to cancellation and mandatory exercise, in each case in whole or in part, as described in this prospectus supplement.

In consideration for the purchase of the Series 8 Preferred Stock, the Initial Purchaser will also receive the additional investment right. The exercise price of the additional investment right is \$1,000 per share of Series 9 Preferred Stock. The additional investment right is exercisable immediately and must be exercised within 30 days of the date of this prospectus supplement. The exercise price of the additional investment right may be paid in cash or through the issuance by the Initial Purchaser to us of recourse notes. The additional investment right is subject to cancellation, in whole or in part, as described below.

The closing of the issuance and sale of the Series 8 Preferred Stock, or the closing, is expected to occur on the 10th trading day following the date of this prospectus supplement, or the closing date, and is conditioned upon the closing bid price of our common stock remaining at or above \$0.2908 for each of the nine trading days following the date of this prospectus supplement. In the event that the closing bid price of our common stock falls below \$0.2908 prior to the closing date, the closing may be cancelled or, in the event that all or any portion of the warrants and/or the

additional investment right have been exercised, we may elect to proceed with a partial closing as described in this prospectus supplement.

Table of Contents

We are conducting this offering on a self-underwritten, best efforts basis and there will be no underwriter or placement agent involved in the sale of these securities. Accordingly, we will retain, subject to the offering expenses that we incur and the payment to the Initial Purchaser of a commitment fee, all of the proceeds from the sale of the shares of Series 8 Preferred Stock, if any, and the proceeds received upon exercise of the warrants and the additional investment right for cash, if any.

For a more detailed description of the Series 8 Preferred Stock, the warrants, the additional investment right and the Series 9 Preferred Stock, see the sections entitled Description of Series 8 Preferred Stock, Description of Warrants, Description of Additional Investment Right and Description of Series 9 Preferred Stock beginning on pages S-23, S-24, S-25 and S-26, respectively, of this prospectus supplement. For a more detailed description of our common stock issuable upon the conversion of the Series 9 Preferred Stock and exercise of the warrants, see the section entitled Description of Capital Stock beginning on page S-29 of this prospectus supplement.

The Series 8 Preferred Stock, the warrants, the additional investment right and the Series 9 Preferred Stock 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 January 12, 2011, the last reported sale price of our common stock on The NASDAQ Capital Market was \$0.3875.

Investing in the Series 8 Preferred Stock, the warrants, the additional investment right, the Series 9 Preferred Stock and the common stock involves a high degree of risk. See the section entitled Risk Factors beginning on page S-10 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.

This prospectus supplement is dated January 12, 2011.

Table of Contents

TABLE OF CONTENTS

Prospectus Supplement

	Page
<u>ABOUT THIS PROSPECTUS SUPPLEMENT</u>	S-ii
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	S-ii
<u>INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE</u>	S-ii
<u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	S-iii
<u>SUMMARY</u>	S-1
<u>THE OFFERING</u>	S-5
<u>RISK FACTORS</u>	S-10
<u>USE OF PROCEEDS</u>	S-19
<u>DETERMINATION OF OFFERING PRICE</u>	S-20
<u>RATIO OF EARNINGS TO COMBINED FIXED CHARGES AND PREFERRED STOCK DIVIDENDS</u>	S-21
<u>DIVIDEND POLICY</u>	S-22
<u>DESCRIPTION OF SERIES 8 PREFERRED STOCK</u>	S-23
<u>DESCRIPTION OF WARRANTS</u>	S-24
<u>DESCRIPTION OF ADDITIONAL INVESTMENT RIGHT</u>	S-25
<u>DESCRIPTION OF SERIES 9 PREFERRED STOCK</u>	S-26
<u>DESCRIPTION OF CAPITAL STOCK</u>	S-29
<u>CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS</u>	S-31
<u>PLAN OF DISTRIBUTION</u>	S-35
<u>LEGAL MATTERS</u>	S-36

Prospectus

	Page
<u>ABOUT THIS PROSPECTUS</u>	1
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	1
<u>INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE</u>	2
<u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	2
<u>RATIO OF EARNINGS TO COMBINED FIXED CHARGES AND PREFERRED STOCK DIVIDENDS</u>	4
<u>USE OF PROCEEDS</u>	4
<u>DIVIDEND POLICY</u>	4
<u>LEGAL MATTERS</u>	4
<u>EXPERTS</u>	4

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 8 Preferred Stock, the warrants, the additional investment right and the Series 9 Preferred Stock (or the shares of common stock issuable from time to time upon conversion of the Series 9 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.

Table of Contents

ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of this offering of Series 8 Preferred Stock, warrants (and the shares of common stock issuable from time to time upon exercise of the warrants) and additional investment right (and the shares of Series 9 Preferred Stock issuable from time to time upon exercise of the additional investment right and the shares of common stock issuable from time to time upon conversion of the Series 9 Preferred Stock), 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, you should rely on the information in this prospectus supplement.

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 its respective date, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus, or of any sale of the Series 8 Preferred Stock, warrants (and the shares of common stock issuable from time to time upon exercise of the warrants) and additional investment right (and the shares of Series 9 Preferred Stock issuable from time to time upon exercise of the additional investment right and the shares of common stock issuable from time to time upon conversion of the Series 9 Preferred Stock). 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.

This prospectus supplement and the accompanying prospectus are part of a registration statement that 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 being offered hereby. 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.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

SEC rules allow us to incorporate by reference into this prospectus supplement and the accompanying 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 into this prospectus supplement and the accompanying prospectus is considered to be part of this prospectus supplement and the accompanying prospectus. This prospectus supplement and the accompanying prospectus

Table of Contents

incorporate 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 Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2010, June 30, 2010 and September 30, 2010;

our Current Reports on Form 8-K filed on January 19, 2010 (Items 1.01, 3.03, 5.03 and 9.01 (excluding exhibit 99.1) only), February 9, 2010 (Item 8.01 only), February 22, 2010, March 2, 2010 (Item 8.01 only), March 5, 2010, March 22, 2010 (Item 8.01 only), April 5, 2010 (Items 1.01, 3.03, 5.03 and 9.01 (excluding exhibit 99.1) only), April 6, 2010, April 9, 2010 (Item 8.01 only), April 15, 2010 (Item 2.05 only), May 4, 2010 (Item 3.01 only), May 20, 2010 (Item 3.02 only), May 26, 2010, May 27, 2010 (Items 1.01, 3.02, 3.03, 5.03, 8.01 and 9.01 (excluding exhibit 99.1) only), June 29, 2010 (Item 8.01 only), July 14, 2010, July 26, 2010, July 27, 2010, August 24, 2010, September 17, 2010 (Items 5.02, 5.03, 5.07 and 9.01 (excluding exhibit 99.1) only), October 6, 2010 (as amended on October 25, 2010), October 22, 2010, October 28, 2010, November 4, 2010 (Item 3.01 only) and December 7, 2010 (Item 8.01 only); and

the description of our capital stock contained in our Registration Statement on Form 10 filed on June 27, 1996, as amended. Because we are incorporating by reference future filings with the SEC, this prospectus supplement and the accompanying prospectus are continually updated and those future filings may modify or supersede some of the information included or incorporated by reference in this prospectus supplement and the accompanying 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 supplement and the accompanying prospectus or in any document previously incorporated by reference have been modified or superseded.

You may request a copy of these filings, at no 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

Such filings are also available to the public free of charge at www.sec.gov.

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 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;

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

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;

S-iii

Table of Contents

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

any statements regarding compliance with the listing standards of The NASDAQ Stock Market, or NASDAQ;

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 supplement 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

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. We are currently focusing our efforts on Pixuvri® (pixantrone dimaleate), or Pixuvri, OPAXIO, brostallicin and novel bisplatinum analogues.

Corporate Information

We were incorporated in the State of Washington in 1991. Our shares of common stock trade on The NASDAQ Capital Market and the MTA in Italy 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

Pediatric Committee of the European Medicines Agency

October 19, 2010, we announced that the Pediatric Committee, or the PDCO, of the European Medicines Agency, or the EMA, adopted an opinion agreeing to our Pediatric Investigation Plan, or PIP, for Pixuvri for the treatment of lymphoid malignancies and solid tumors in children between the ages of six months and 18 years. We submitted the updated PIP to the PDCO in July 2010 after it recommended that we expand the original PIP to include pixantrone's potential clinical benefit of reducing long-term cardiotoxicity associated with current curative therapies in children. The expanded PIP was accepted for review by the PDCO in August 2010. The recommendation from the PDCO came following discussions with us about the preclinical and clinical pixantrone data, including PIX301, and the desire to explore the potential benefits pixantrone may offer to children with hematologic cancers and solid tumors. The PDCO also recommended deferral of the initiation of the clinical studies until after the drug receives EMA approval. On November 17, 2010, we announced that the EMA approved our PIP.

On November 1, 2010, we announced that we submitted a Marketing Authorization Application, or MAA, to EMA for Pixuvri for the treatment of adult patients with multiple relapsed or refractory aggressive non-Hodgkin's lymphoma. On November 18, 2010, we announced that the EMA validated and accepted for review our MAA. Validation indicates that the MAA is complete and that the EMA's review process has begun. The EMA's review of the MAA will follow the centralized authorization procedure and, if the EMA approves the MAA, we expect to receive marketing authorization for Pixuvri in the E.U. member states.

Notice from NASDAQ

On November 2, 2010, we received a notice from NASDAQ indicating that NASDAQ has granted us an additional 180 days to regain compliance with NASDAQ's \$1.00 minimum bid price rule under NASDAQ Marketplace Rule 5550(a)(2). Previously, on May 3, 2010, we were notified by NASDAQ that we did not meet the minimum bid price rule required for continued listing and we were provided until November 1, 2010 to achieve compliance. We may achieve compliance during the additional 180-day period if the closing bid price of our common stock is at least a \$1.00 per share for a minimum of 10 consecutive business days before May 2, 2011.

Table of Contents

There can be no assurance that we will be able to comply with the minimum bid price rule prior to May 2, 2011. See Risk Factors Risks Related to Our Company Our common stock is listed on The NASDAQ Capital Market and the MTA in Italy and we may not be able to maintain those listings or trading on these exchanges may be halted or suspended, which may make it more difficult for investors to sell shares of our common stock.

Recent Financing Initiatives

We have held preliminary discussions with several investment funds regarding a potential investment in our company, but we have no current agreements or commitments with respect to any investment by these investment funds or any other investors (other than this offering). We have substantial operating expenses associated with the development of our product candidates and we continually evaluate our financing needs and alternatives. There can be no assurance that our discussions with these investment funds or any other investors will result in an investment in our company. See Risk Factors 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.

CONSOB Investigation

On May 5, 2010, the Commissione Nazionale per le Società e la Borsa, or CONSOB, (i) notified us that it has begun the preliminary investigation for its decision on administrative proceedings relating to three asserted violations of the provisions of Section 114, paragraph 5 of the Italian Legislative Decree no. 58/98 contained in a notice that CONSOB sent to us on July 31, 2009 and (ii) provided us with a preliminary investigation report in reply to our defenses that were submitted to CONSOB on August 28, 2009. On June 4, 2010 (within 30 days of May 5, 2010, the notification date of the beginning of the aforesaid preliminary investigation, according to the applicable Italian rules), we submitted further defenses that CONSOB will have to evaluate before imposing any possible administrative sanctions.

On July 12, 2010, CONSOB (i) notified us that it has begun the preliminary investigation for its decision on administrative proceedings relating to two claimed violations of the provisions of Section 114, paragraph 1 of the Italian Legislative Decree no. 58/98, due to the asserted late disclosure of certain information reported, at CONSOB's request, in a press release disseminated on December 19, 2008 and March 23, 2009, contained in a notice that CONSOB sent to us on December 10, 2009 and (ii) provided us with a preliminary investigation report in reply to our defenses which were submitted to CONSOB on January 8, 2010. On August 12, 2010 (within 30 days of July 12, 2010, the notification date of the beginning of the aforesaid preliminary investigation, according to the applicable Italian rules), we submitted further defenses that CONSOB will have to evaluate before imposing any possible administrative sanctions.

Securities Class Action and Shareholder Derivative Litigation

On March 12, 2010, a purported securities 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), or the *Sabbagh* action. 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), or the *Laquidari* action. On March 31, 2010, a third substantially similar class action complaint was filed in the same court, styled *William Snyder, individually and on behalf of all others similarly situated v. Cell Therapeutics, Inc., James A. Bianco, Phillip M. Nudelman, Louis A. Bianco, John H. Bauer, Richard L. Love, Mary O. Munding, Jack W. Singer, Frederick W. Telling and Rodman & Renshaw, LLC* (Case No. 2:10-cv-00559), or the *Snyder* action. The securities actions are pending before Judge Marsha Pechman in the Western District of Washington. The securities complaints allege that the defendants violated the federal securities laws by making certain alleged false and misleading statements. The plaintiffs in the *Sabbagh* and *Laquidari* actions seek unspecified damages on behalf of a putative class of purchasers of our securities from May 5, 2009 through February 8, 2010. The plaintiffs in the *Snyder* action seek unspecified damages on behalf of a putative class of purchasers of our securities from May 5, 2009 through March 19, 2010, including purchasers of securities issued

Table of Contents

pursuant to or traceable to our July 22, 2009 public offering. On August 2, 2010, the court consolidated the securities actions, appointed lead plaintiffs, and approved lead plaintiffs' counsel. On September 27, 2010, lead plaintiff filed an amended consolidated complaint. On October 27, 2010, the defendants filed a motion to dismiss the amended consolidated complaint. The plaintiffs' opposition to the motion to dismiss was filed on December 3, 2010 and the defendants' reply was filed on December 22, 2010. The motion is scheduled to be heard on January 28, 2011.

On April 1, 2010, a shareholder derivative complaint was filed in the United States District Court for the Western District of Washington, derivatively on our behalf against the members of our Board of Directors, styled *Shackleton v. John A. Bauer, James A. Bianco, Vartan Gregorian, Richard L. Love, Mary O. Neil Munding, Phillip M. Nudelman, Jack W. Singer, and Frederick W. Telling* (Case No. 2:10-cv-564). On April 5, 2010, and April 13, 2010, substantially similar derivative actions were filed in the same court, styled, respectively, *Marbury v. James A. Bianco, et al.* (Case No. 2:10-cv-00578) and *Cyrek v. John H. Bauer, et al.* (Case No. 2:10-cv-00625). The derivative actions are also pending before Judge Marsha Pechman. The derivative complaints allege that the defendants breached their fiduciary duties to the Company under Washington law by making or failing to prevent the disclosure of certain alleged false and misleading statements. The allegations in the derivative actions are substantially similar to those in the securities actions. On May 10, 2010, pursuant to the parties' stipulation, the court consolidated these three shareholder derivative actions and appointed the law firms Robbins Umeda LLP and Federman & Sherwood as co-lead counsel for derivative plaintiffs.

On June 1, 2010, a fourth related shareholder derivative action was filed in the Western District of Washington, *Souda v. John H. Bauer et al.* (Case No. 2:10-cv-00905). It was subsequently transferred to Judge Pechman and consolidated with the consolidated derivative actions. Plaintiff Souda filed a motion to reconsider the portion of the court's order dated May 10, 2010, appointing Robbins Umeda and Federman & Sherwood as co-lead derivative counsel. Souda's motion for reconsideration was denied on November 16, 2010.

On July 27, 2010, a fifth related shareholder derivative action, *Bohland v. John H. Bauer et al.* (Case No. 2:10-cv-1213), was filed in the Western District of Washington and assigned to Judge John C. Coughenour. It was subsequently transferred to Judge Pechman. Plaintiff Bohland filed a motion to consolidate the *Bohland* action with the consolidated derivative actions and to reconsider the portion of the court's order dated May 10, 2010, appointing Robbins Umeda and Federman & Sherwood as co-lead derivative counsel. Bohland's motion for reconsideration was denied on November 16, 2010, and *Bohland* was ordered consolidated with the other derivative actions.

On October 4, 2010, a sixth related derivative complaint was filed in the Superior Court of Washington, County of King, *Alexander v. James A. Bianco, et al.* (Case No. 10-2-34849-2-SEA). On October 5, 2010, the complaint was removed to the Western District of Washington and assigned to Judge Pechman. On October 29, 2010, we, as the nominal defendant, filed a Notice of Related Case in the lead derivative case, *Shackleton v. John H. Bauer, et al.*, Case No. 2:10-cv-00564 (Doc. No. 42). We notified the court of this action and requested that it be consolidated with the other derivative actions per the court's May 10, 2010 Consolidation Order. On November 30, 2010, the court entered an order consolidating *Alexander* with the other derivative actions and staying the derivative actions until defendants' motion to dismiss in the securities class action is decided.

Value Added Tax Assessment

Our European operations are subject to a value added tax, or VAT, which is usually applied to all goods and services purchased and sold throughout Europe. The VAT receivable is \$5.5 million and \$6.3 million as of September 30, 2010 and December 31, 2009, respectively. On April 14, 2009 and December 21, 2009, the Italian Tax Authority, or the ITA, issued notices of assessment to CTI (Europe) based on the ITA's audit of CTI (Europe)'s VAT returns for the years 2003 and 2005, respectively. On June 25, 2010, the ITA issued notices of assessment to CTI (Europe) for the years 2006 and 2007 based on similar findings of the 2003 and 2005 assessments. The ITA audits concluded that CTI (Europe) did not collect and remit VAT on certain invoices issued to non-Italian clients for services performed by CTI (Europe). The assessments, including interest and penalties, for the years 2003, 2005, 2006 and 2007 are 0.5 million, 5.5 million, 2.5 million and 0.8 million, or approximately \$0.7 million, \$7.5 million, \$3.4 million and \$1.2 million as of September 30, 2010, respectively. On July 14, 2010, the ITA issued a notice of deposit payment to CTI (Europe) based on the 2005 assessment, including interest and collection fees for an amount of 0.9 million. We successfully filed a petition with the Provincial Tax Court of Milan, or the Tax

Table of Contents

Court, for suspension of the 2005 notice of deposit payment. On January 10, 2011, the ITA issued a notice of deposit payment to CTI (Europe) based on the 2006 assessment, including interest and collection fees for an amount of 0.4 million, which is due within 60 days of the notice date. We are preparing to file a petition with the Provisional Tax Court of Milan, or the Tax Court, for suspension of the 2006 notice of deposit payment. On September 28, 2010, the merits of the case for the 2005 assessment were discussed in a public hearing before the Tax Court, which has reserved its decision in order to carefully review the arguments, relevant documents and other supporting evidence (including an appraisal from an independent expert) that our counsel filed and presented during the hearing. We believe that the services invoiced were non-VAT taxable consultancy services and that the VAT returns are correct as originally filed. We have been vigorously defending against the assessments and expect that the Tax Court will take into account our arguments both on the procedural grounds and on the merits of the case. If the Tax Court's decision is unfavorable, we will appeal to the higher courts in order to further defend our interests. However, if we are unable to successfully defend ourselves against the assessments, and if we receive an assessment for subsequent years, it may harm our results of operations and financial condition.

Recent Series 7 Preferred Stock Financing

On October 19, 2010, we entered into a securities purchase agreement with various purchasers party thereto pursuant to which we agreed to issue in a registered offering 21,000 shares of our Series 7 Preferred Stock, no par value per share, initially convertible into approximately 56.8 million shares of common stock, and warrants to purchase up to approximately 22.7 million shares of common stock, for an aggregate offering price of \$21 million, or the Series 7 Preferred Stock Financing. Each warrant has an exercise price of \$0.45 per share of common stock. The warrants are exercisable six months and one day after the date of issuance and expire five years after the date of issuance.

The purchasers elected to convert all 21,000 shares of Series 7 Preferred Stock and to receive approximately 56.8 million shares of common stock issuable upon such conversion at the closing of the Series 7 Preferred Stock Financing on October 22, 2010.

Table of Contents

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 Up to 25,000 shares of Series 8 Preferred Stock, warrants to purchase up to 22,563,177 shares of common stock (and the 22,563,177 shares of common stock issuable from time to time upon exercise of the warrants) and the additional investment right to purchase up to 25,000 shares of Series 9 Preferred Stock (and the 25,000 shares of Series 9 Preferred Stock issuable from time to time upon exercise of the additional investment right and the 64,466,219 shares of common stock issuable from time to time upon conversion of the Series 9 Preferred Stock). The purchase price for each share of Series 8 Preferred Stock is \$1,000. In consideration for the purchase of the Series 8 Preferred Stock, the Initial Purchaser will receive the warrants and the additional investment right.

Closing The closing is expected to occur on the closing date and is conditioned upon the closing bid price of our common stock remaining at or above \$0.2908 during the nine trading days following the date of this prospectus supplement. We refer to any day prior to the closing date during which the closing bid price falls below \$0.2908 as the early termination date in this prospectus supplement.

In the event that no portion of the warrants and/or the additional investment right has been exercised prior to the early termination date, the closing will be cancelled and the warrants and the additional investment right will automatically terminate on the early termination date.

In the event that all or any portion of the warrants and/or the additional investment right have been exercised prior to the early termination date, we may elect to require the Initial Purchaser to purchase shares of Series 8 Preferred Stock at the closing in an amount equal to 25,000 multiplied by the larger of (i) the percentage of the warrants so exercised and (ii) the percentage of the additional investment right so exercised, or the adjustment factor. In that case, the number of shares of common stock that must be purchased by the Initial Purchaser upon exercise of the warrants and the number of shares of Series 9 Preferred Stock that must be purchased by the Initial Purchaser upon exercise of the additional investment right will also be adjusted by the adjustment factor, and the balance of the unexercised warrants in excess of the adjusted number of warrants and the balance of the additional investment right in excess of the adjusted number of shares of Series 9 Preferred Stock will automatically terminate. Alternatively, we may elect to hold the consideration received upon exercise of the warrants and/or the additional investment right and otherwise cancel the closing. In that case, no shares of Series 8 Preferred Stock will be issued and the unexercised warrants and the additional investment right will automatically terminate on the early termination date.

If the closing is not cancelled, and the Initial Purchaser purchases all of the shares of Series 8 Preferred Stock on the closing date, as further described herein, the Initial Purchaser will be required to (i) exercise the additional investment right in full and (ii) exercise the warrants in full, in each case, within 30 days of the date of this prospectus supplement.

Commitment Fee In connection with this offering, we will pay to the Initial Purchaser a commitment fee equal to 5.0% of the aggregate cash proceeds received by us from the Initial Purchaser for the purchase and

Table of Contents

sale of the Series 8 Preferred Stock at the closing, or the commitment fee. The commitment fee will be paid in the form of a deduction from such aggregate cash proceeds payable to us.

Escrow

In connection with this offering, the Initial Purchaser will deposit up to \$12,500,000 of the purchase price for the shares of Series 8 Preferred Stock into an escrow account upon any exercise of the warrants and the additional investment right. The funds in the escrow account will be released to us in connection with the closing of this offering. In the event that the closing is cancelled, the funds in the escrow account will be released to the Initial Purchaser. In the event of a partial closing, any funds in the escrow account in excess of the purchase price required to be delivered to us by the Initial Purchaser at the partial closing will be released to the Initial Purchaser.

Description of the Series 8 Preferred Stock

Dividends

Commencing on the issuance date of each share of Series 8 Preferred Stock, holders of the Series 8 Preferred Stock are entitled to receive annual dividends on each outstanding share of Series 8 Preferred Stock, which dividends shall accrue in the form of additional shares of Series 8 Preferred Stock at a rate equal to 10.0% per annum from the issuance date of the Series 8 Preferred Stock. Accrued dividends shall be payable upon redemption of the Series 8 Preferred Stock. The Series 8 Preferred Stock is senior to the Series 9 Preferred Stock as to dividends.

Conversion

The Series 8 Preferred Stock is not convertible.

Redemption

The shares of Series 8 Preferred Stock are redeemable at our option at any time after issuance, in whole or in part, either in cash or by offset against recourse notes. In the event that we elect to redeem shares of Series 8 Preferred Stock by offset against recourse notes, each share of Series 8 Preferred Stock (plus accrued dividends thereon, if any) shall be fully offset by \$1,350 principal amount of recourse notes (plus accrued interest thereon, if any), regardless of the issuance date of the shares of Series 8 Preferred Stock and recourse notes. See Description of Series 8 Preferred Stock Redemption.

Liquidation preference

In the event of our voluntary or involuntary dissolution, liquidation or winding up, each holder of Series 8 Preferred Stock will be entitled to be paid a liquidation preference equal to the initial stated value of such holder's Series 8 Preferred Stock of \$1,000 per share, 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 8 Preferred Stock. The Series 8 Preferred Stock is *pari passu* with the Series 9 Preferred Stock as to liquidations.

Voting rights and negative covenants

The Series 8 Preferred Stock will have no voting rights, except as otherwise expressly provided in our amended and restated articles of incorporation or as otherwise required by law. However, so long as at least 8,000 or more originally issued shares of Series 8 Preferred Stock are outstanding, we cannot amend our amended and restated articles of incorporation, amended and restated bylaws or other charter documents so as to materially, specifically and adversely affect the rights of the Series 8 Preferred Stock or authorize or create any class of senior preferred stock, in each case, without the affirmative written consent of holders of a majority of the outstanding shares of Series 8

Preferred Stock.

S-6

Table of Contents

Description of warrants	<p>In consideration for the purchase of Series 8 Preferred Stock, the Initial Purchaser will receive warrants to purchase up to 22,563,177 shares of common stock. Each warrant to purchase shares of our common stock will have an exercise price of \$0.3878 per share. The exercise price (and, in certain circumstances, the number of shares of common stock issuable upon exercise of the warrants) is subject to adjustment in certain events, including, among other things, stock splits or certain distributions. The warrants are exercisable immediately and expire two years from the date of issuance, provided that the warrants must be exercised simultaneously with the exercise of the additional investment right such that the percentage of the warrants that have been exercised will always equal or exceed the percentage of the additional investment right that has been exercised. The exercise price of the warrants may be paid in cash or, provided that the Initial Purchaser is solvent, through the issuance by the Initial Purchaser to us of recourse notes. The warrants are subject to cancellation, in whole or in part, as described below. See Description of Warrants.</p>
Automatic termination	<p>In the event that no portion of the warrants and/or the additional investment right has been exercised prior to the early termination date, the closing will be cancelled and the warrants will automatically terminate on the early termination date. In the event of a partial closing, the remaining unexercised portion of the warrants will automatically terminate on the early termination date.</p>
Limitations on exercise	<p>No holder may exercise its warrants to the extent that the exercise would result in the holder and its affiliates beneficially owning 9.99% or more of our common stock. To the extent such limitation applies, the holder shall first be required to convert outstanding shares of Series 9 Preferred Stock into common stock, subject to such limitation, until the holder no longer owns any shares of Series 9 Preferred Stock prior to exercising the warrants.</p>
Description of Additional Investment Right	<p>In consideration for the purchase of Series 8 Preferred Stock, the Initial Purchaser will receive the additional investment right to purchase up to 25,000 shares of Series 9 Preferred Stock, at a purchase price of \$1,000 per share of Series 9 Preferred Stock. The additional investment right is exercisable immediately and must be exercised in full within 30 days of the date of this prospectus supplement. The additional investment right may be exercised by the Initial Purchaser in whole or in part in one or more tranches during such period, at such times as may be determined by the Initial Purchaser. The exercise price of the additional investment right is \$1,000 per share of Series 9 Preferred Stock and may be paid in cash or, provided that the Initial Purchaser is solvent, through the issuance by the Initial Purchaser to us of recourse notes. The additional investment right is subject to cancellation, in whole or in part, as described below. See Description of Additional Investment Right.</p>
Automatic termination	<p>In the event that no portion of the additional investment right and/or the warrants has been exercised prior to the early termination date, the closing will be cancelled and the additional investment right will automatically terminate on the early termination date. In the event of a partial closing, the remaining unexercised portion of the additional investment right will automatically terminate on the early termination date.</p>
Description of the Series 9 Preferred Stock	

Dividends

Holders of the Series 9 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

S-7

Table of Contents

anticipate declaring or paying cash dividends on our common stock in the foreseeable future. See Dividend Policy. The Series 8 Preferred Stock is senior to the Series 9 Preferred Stock as to dividends.

Optional conversion

The Series 9 Preferred Stock can be converted at the holder's option at any time after issuance into the number of shares of common stock determined by dividing the stated value of the Series 9 Preferred Stock of \$1,000 per share to be converted by the conversion price, which is initially \$0.3878. The initial conversion price is subject to adjustment in certain events, including, among other things, stock splits or certain distributions. See Description of Series 9 Preferred Stock.

Automatic conversion

On the first to occur of (i) the date on which 1,000 or less shares of Series 9 Preferred Stock remain outstanding or (ii) the date on which our board of directors determines in good faith to do a reverse stock split with respect to our common stock in order to achieve compliance with the listing rules of The NASDAQ Capital Market or for other good faith business reasons, all outstanding shares of Series 9 Preferred Stock shall automatically convert into that number of shares of common stock determined by dividing the aggregate stated value of the Series 9 Preferred Stock being converted by the conversion price then in effect, subject only to the limitations on conversion described below.

Limitations on conversion

We cannot effect a conversion of the Series 9 Preferred Stock, and no holder may request a conversion of its Series 9 Preferred Stock, to the extent such conversion would result in the holder and its affiliates beneficially owning more than 9.99% of our common stock. In the event of an automatic conversion of the Series 9 Preferred Stock, the conversion threshold will increase to 19.99% without any further action on the part of a holder.

Liquidation preference

In the event of our voluntary or involuntary dissolution, liquidation or winding up, each holder of Series 9 Preferred Stock will be entitled to be paid a liquidation preference equal to the initial stated value of such holder's Series 9 Preferred Stock of \$1,000 per share, 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 9 Preferred Stock. The Series 9 Preferred Stock is *pari passu* with the Series 8 Preferred Stock as to liquidations.

Voting rights and negative covenants

The Series 9 Preferred Stock will have no voting rights, except as otherwise expressly provided in our amended and restated articles of incorporation or as otherwise required by law. However, so long as at least 20% of the aggregate originally issued shares of the Series 9 Preferred Stock are outstanding, we cannot amend our amended and restated articles of incorporation, amended and restated bylaws or other charter documents so as to materially, specifically and adversely affect the rights of the Series 9 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 9 Preferred Stock, except in certain limited circumstances, or authorize or create any class of senior preferred stock, in each case without the affirmative written consent of holders of a majority of the outstanding shares of Series 9 Preferred Stock.

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

Table of Contents

research and development, preclinical and clinical trials, the preparation and filing of new drug applications and general working capital. We may also use a portion of the net proceeds from this offering to fund possible investments in, or acquisitions of, complementary businesses, technologies or products. We have recently engaged in limited discussions with third parties regarding such investments or acquisitions, but we have no current agreements or commitments with respect to any investment or acquisition. We can provide no assurance that we will enter into any such agreements or commitments or consummate any such investments or acquisitions. See Use of Proceeds.

Market for the Series 8 Preferred Stock, the warrants, the additional investment right and the Series 9 Preferred Stock

There is no established public trading market for the Series 8 Preferred Stock, Series 9 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 8 Preferred Stock, the warrants, the additional investment right or the Series 9 Preferred Stock on any securities exchange.

Market for our common stock

Our common stock is quoted on The NASDAQ Capital Market and on the MTA in Italy under the symbol CTIC. On January 12, 2011, the last reported sale price of our common stock on The NASDAQ Capital Market was \$0.3875.

Table of Contents**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, and beginning on page 30 of our Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2010, filed with the SEC on October 28, 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 and the trading price of our securities. 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 and the trading price of our securities.*

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 September 30, 2010, we had cash and cash equivalents of \$17.3 million. As of September 30, 2010, our total current liabilities were \$25.9 million. The aggregate principal balance of our outstanding 7.5% and 5.75% convertible senior notes as of September 30, 2010 was \$21.2 million. We repaid the outstanding principal amount and accrued but unpaid interest on our 4% notes in July 2010. We do not expect that our existing cash and cash equivalents, as well as proceeds received from our offerings to date, will provide sufficient working capital to fund our presently anticipated operations beyond the first quarter of 2011.

Raising additional capital will likely require that we issue additional shares of our common stock. To the extent that we raise additional capital through the sale of equity securities, or securities convertible into our equity securities, our shareholders may experience dilution of their proportionate ownership of us. We have held preliminary discussions with several investment funds regarding a potential investment in our company, but we have no current agreements or commitments with respect to any investment by these investment funds or any other investors. There can be no assurance that our discussions with these investment funds or any other investors will result in an investment in our company or that we will have sufficient earnings, access to liquidity or cash flow in the future to meet our operating expenses and other obligations, including our debt service obligations.

We may not be able to raise such capital or if we can, it may not be on favorable terms. We may seek to raise additional capital through public or private equity financings, partnerships, joint ventures, dispositions of assets, debt financings or restructurings, bank borrowings or other sources. To obtain additional funding, we may need to enter into arrangements that require us to relinquish rights to certain technologies, drug candidates, products and/or potential markets. In addition, some financing alternatives may require us to meet additional regulatory requirements in Italy and the United States and we may be subject to certain contractual limitations, which may increase our costs and adversely affect our ability to obtain additional funding. If adequate funds are not otherwise available, we will further curtail operations significantly, including the delay, modification or cancellation of operations and plans related to pixantrone, OPAXIO and brostallicin, and may be forced to cease operations, liquidate our assets and possibly seek bankruptcy protection. A bankruptcy may result in the termination of agreements pursuant to which we license certain intellectual property rights, including the rights to pixantrone, OPAXIO and brostallicin.

We are required to comply with the regulatory structure of Italy because our stock is traded on the MTA, which could result in administrative and other challenges and additional expenses.

Our common stock is traded on the MTA and we are required to also comply with the rules and regulations of CONSOB, which is the public authority responsible for regulating the Italian securities market, and the Borsa Italiana, which ensures the development of the managed market in Italy. Collectively these entities regulate companies listed on Italy's public markets. Conducting our operations in a manner that complies with all of the

Table of Contents

applicable laws and rules requires us to devote additional time and resources to regulatory compliance matters. For example, the process of seeking to understand and comply with the laws of each country, including tax, labor and regulatory laws, might require us to incur the expense of engaging additional outside counsel, accountants and other professional advisors and might result in delayed business initiatives as we seek to ensure that each new initiative will comply with all of the applicable regulatory regimes. In addition, the Borsa Italiana and CONSOB have made several requests for information asking us to provide additional clarifications about our business operations and financial condition, and we have complied with such requests and have met with CONSOB on several occasions to answer questions. Compliance with Italian regulatory requirements may delay additional issuances of our common stock; we are currently taking steps to attempt to conform to the requirements of the Italian stock exchange and CONSOB to allow such additional issuances.

In addition, under Italian law, we must publish a listing prospectus that has been approved by CONSOB prior to issuing common stock that exceeds, in any twelve-month period, 10% of the number of shares of our common stock outstanding at the beginning of that period (except for the applicable exceptions). If we are unable to maintain a listing prospectus to cover general financing efforts under Italian law, we may be required to raise money using alternative forms of securities. For example, we may need to use convertible preferred stock and convertible debt since the common stock resulting from the conversion of such securities, subject to the provisions of European Directive No. 71/2003 and according to the interpretations of the Committee of European Securities Regulators (CESR), is not subject to the aforesaid 10% limitation imposed by European Union and Italian law.

Moreover, on December 23, 2008, CONSOB sent a notice to us requesting that we issue (i) immediately, a press release providing, among other things, information about our debt restructuring plan, the current state of compliance with the relevant covenants regulating our debt and the equity line of credit agreement we entered into with Midsummer Investment Ltd. on July 29, 2008, and (ii) by the end of each month and starting from the month of December 2008, a press release providing certain information relating to our management and financial situation, updated to the previous month, or the Monthly CONSOB Press Release. On July 31, 2009, CONSOB sent us a notice asserting three violations of the provisions of Section 114, paragraph 5 of the Italian Legislative Decree no. 58/98, as follows: (a) the non-disclosure without delay of the press release described under point (i) above and the subsequent incomplete disclosure of the relevant information through press releases dated January 9, 2009 and January 13, 2009; (b) the non-disclosure of the Monthly CONSOB Press Release in December 2008; and (c) the incomplete disclosure of the Monthly CONSOB Press Release in January 2009. The sanctions established by the Section 193, paragraph 1 of the Italian Legislative Decree no. 58/1998 for such violations are pecuniary administrative sanctions amounting to between 5,000 and 500,000, applicable to each one of the three asserted violations. According to the applicable Italian legal provisions, CONSOB may impose such administrative sanctions by means of a decree stating the grounds of its decision only after evaluating our possible defenses that were submitted to CONSOB on August 28, 2009 (within 30 days of July 31, 2009, the notification date of the relevant charges, according to the applicable Italian rules). On May 5, 2010, CONSOB (i) notified us that it has begun the preliminary investigation for its decision on these administrative proceedings and (ii) provided us with a preliminary investigation report in reply to our defenses submitted on August 28, 2009. On June 4, 2010 (within 30 days of May 5, 2010, the notification date of the beginning of the aforesaid preliminary investigation, according to the applicable Italian rules), we submitted further defenses that CONSOB will have to evaluate before imposing any possible administrative sanctions.

On December 10, 2009, CONSOB sent us a notice claiming two violations of the provisions of Section 114, paragraph 1 of the Italian Legislative Decree no. 58/98 due to the asserted late disclosure of certain information then reported, at CONSOB's request, in the press release disseminated on December 19, 2008 and March 23, 2009. Such information concerned, respectively: (i) the conversion by BAM Opportunity Fund LP of 9.66% notes into shares of common stock that occurred between October 24, 2008 and November 19, 2008; and (ii) the contents of the opinion expressed by Stonefield Josephson, Inc., an independent registered public accounting firm, with respect to our 2008 financial statements. The sanctions established by the Section 193, paragraph 1 of the Italian Legislative Decree no. 58/98 for such violations are pecuniary administrative sanctions amounting to between 5,000 and 500,000, applicable to each one of the two asserted violations. According to the applicable Italian legal provisions, CONSOB may impose such administrative sanctions by means of a decree stating the grounds of its decision only after evaluating our possible defenses that were submitted to CONSOB on January 8, 2010 (within 30 days of December 10, 2009, the notification date of the relevant charges, according to the applicable Italian rules). On July 12, 2010, CONSOB (i) notified us that it has begun the preliminary investigation for its decision on these

Table of Contents

administrative proceedings and (ii) provided us with a preliminary investigation report in reply to our defenses submitted on January 8, 2010. On August 12, 2010 (within 30 days of July 12, 2010, the notification date of the beginning of the aforesaid preliminary investigation, according to the applicable Italian rules), we submitted further defenses that CONSOB will have to evaluate before imposing any possible administrative sanctions.

We may owe additional amounts for value added taxes related to our operations in Europe.

Our European operations are subject to VAT, which is usually applied to all goods and services purchased and sold throughout Europe. The VAT receivable is \$5.5 million and \$6.3 million as of September 30, 2010 and December 31, 2009. On April 14, 2009 and December 21, 2009, the Italian Tax Authority, or ITA, issued notices of assessment to CTI (Europe) based on the ITA's audit of CTI (Europe)'s VAT returns for the years 2003 and 2005. On June 25, 2010, the ITA issued notices of assessment to CTI (Europe) for the years 2006 and 2007 based on similar findings of the 2003 and 2005 assessments. The ITA audits concluded that CTI (Europe) did not collect and remit VAT on certain invoices issued to non-Italian clients for services performed by CTI (Europe). The assessments, including interest and penalties, for the years 2003, 2005, 2006 and 2007 are 0.5 million, 5.5 million, 2.5 million and 0.8 million, as of September 30, 2010, respectively. On July 14, 2010, the ITA issued a notice of deposit payment to CTI (Europe) based on the 2005 assessment including interest and collection fees for an amount of 0.9 million, payable in the third quarter 2010. We successfully filed a petition with the Provincial Tax Court of Milan, or the Tax Court, for suspension of the 2005 notice of deposit payment. On January 10, 2011, the ITA issued a notice of deposit payment to CTI (Europe) based on the 2006 assessment, including interest and collection fees for an amount of 0.4 million, which is due within 60 days of the notice date. We are preparing to file a petition with the Tax Court for suspension of the 2006 notice of deposit payment. On September 28, 2010, the merits of the case for the 2005 assessment were discussed in a public hearing before the Tax Court, which has reserved its decision in order to carefully review the arguments, relevant documents and other supporting evidence (including an appraisal from an independent expert) that our counsel filed and presented during the hearing. We believe that the services invoiced were non-VAT taxable consultancy services and that the VAT returns are correct as originally filed. We have been vigorously defending against the assessments and expect that the Tax Court will take into account our arguments both on the procedural ground and on the merits of the case. If the Tax Court's decision is unfavorable, we will appeal to the higher courts in order to further defend our interests. However, if we are unable to defend ourselves against the assessments and if we receive an assessment for subsequent years, it may harm our results of operations and financial condition.

If there is an adverse outcome in the securities class actions and shareholder derivative litigation that have been filed against us, our business may be harmed.

We and certain of our officers and directors are named as defendants in purported securities class action and shareholder derivative lawsuits filed in the U.S. District Court for the Western District of Washington. These securities class action lawsuits are brought on behalf of a putative class of purchasers of our securities from May 5, 2009 through March 19, 2010, and seek unspecified damages. All of the purported securities class actions have been consolidated into one securities class action, a lead plaintiff has been appointed, and a consolidated amended complaint has been filed. Defendants filed a motion to dismiss the consolidated amended complaint on October 27, 2010. Plaintiffs filed their opposition to the motion on December 3, 2010, and the defendants filed their reply on December 22, 2010. The motion is scheduled to be heard on January 28, 2011. The currently filed shareholder derivative lawsuits have also been consolidated into one derivative action and co-lead plaintiffs have been appointed. The derivative action is stayed pending the outcome of the defendants' motion to dismiss in the securities class 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 these lawsuits. In the event of an adverse outcome, our business could be materially harmed.

Our common stock is listed on The NASDAQ Capital Market and the MTA in Italy and we may not be able to maintain those listings or trading on these exchanges may be halted or suspended, which may make it more difficult for investors to sell shares of our common stock.

Effective with the opening of trading on January 8, 2009, the U.S. listing of our common stock was transferred to The NASDAQ Capital Market, subject to meeting a minimum market value of listed securities of \$35 million. The Panel approved this transfer after our market capitalization did not comply with the minimum market capitalization required for companies listed on The NASDAQ Global Market, and we presented a plan to the Panel for regaining compliance with NASDAQ Marketplace Rules. On January 23, 2009, we received an Additional Staff Determination Letter from NASDAQ that stated that NASDAQ staff had concluded that we had violated Nasdaq

Table of Contents

Marketplace Rule 4350(i)(1)(C) (now Nasdaq Marketplace Rule 5635), which requires shareholder approval in connection with an acquisition if the issuance or potential issuance is greater than 20% of the pre-acquisition shares outstanding, and that we had at times not complied with Marketplace Rule 4310(c)(17) regarding submission of a Listing of Additional Shares form. On February 18, 2009, we updated the Panel on our plan for regaining compliance and requested an extension of the deadline to regain compliance with the minimum market capitalization requirement for The NASDAQ Capital Market. On March 6, 2009, we were notified by NASDAQ that the Panel had determined to continue the listing of our common stock on The NASDAQ Capital Market, subject to the condition that, on or before April 6, 2009, we demonstrate compliance with all applicable standards for continued listing on The NASDAQ Capital Market, including the \$35 million minimum market capitalization requirement. In addition, the Panel issued a public reprimand for our prior failures to comply with the shareholder approval requirements and late filing of Listing of Additional Shares forms. On April 2, 2009, we were notified by NASDAQ that we had complied with the Panel's decision dated March 6, 2009, and, accordingly, the Panel had determined to continue the listing of our common stock on The NASDAQ Capital Market.

NASDAQ reinstated the \$1.00 minimum bid price requirement on August 3, 2009. On May 3, 2010, we received notice from NASDAQ indicating that for the last 30 consecutive business days the closing bid price of our common stock was below the minimum \$1.00 per share requirement for continued listing of our common stock on The NASDAQ Capital Market under NASDAQ Marketplace Rule 5550(a)(2). This notification has no immediate effect on the listing of or the ability to trade our common stock on The NASDAQ Capital Market. In accordance with NASDAQ Marketplace Rule 5810(c)(3)(A), we were provided a grace period of 180 calendar days, or until November 1, 2010, to regain compliance. We would have achieved compliance if the bid price of our common stock closed at \$1.00 per share or more for a minimum of ten consecutive trading days before November 1, 2010. Alternatively, we were eligible for an additional 180-day grace period if we meet all of the initial listing standards of NASDAQ, with the exception of the closing bid price. On November 2, 2010, we received notice from NASDAQ that it has granted us an additional 180 days to regain compliance with the minimum \$1.00 per share requirement for continued listing of our common stock on The NASDAQ Capital Market under NASDAQ Marketplace Rule 5550(a)(2). We may achieve compliance during the additional 180-day period if the closing bid price of our common stock is at least a \$1.00 per share for a minimum of 10 consecutive trading days before May 2, 2011.

There can be no assurance that our closing bid price will achieve \$1.00 per share or more for the applicable period. If we are unable to attain compliance with the minimum bid price, whether by effecting a reverse stock split of our common stock or otherwise, we may be delisted. In the event that we receive a delisting determination from NASDAQ, we may request a hearing before the Panel. Following the hearing request, our common stock would continue to be listed on The NASDAQ Capital Market pending the conclusion of the hearing process and during any extension period which may be granted by the Panel. There can be no assurance that the Panel would delay an unfavorable delisting decision or grant any extension period.

The level of trading activity of our common stock may decline if it is no longer listed on The NASDAQ Capital Market. Furthermore, our failure to maintain a listing on The NASDAQ Capital Market may constitute an event of default under certain of our indebtedness which would accelerate the maturity date of such debt. As such, if our common stock ceases to be listed for trading on The NASDAQ Capital Market for any reason, it may harm our stock price, increase the volatility of our stock price and make it more difficult for investors to sell shares of our common stock. In the event our common stock is delisted from The NASDAQ Capital Market, we currently expect that our common stock would be eligible to be listed on the OTC Bulletin Board or Pink Sheets. We do not know what impact delisting from The NASDAQ Capital Market may have on our listing with the Borsa Italiana.

Although we continue to be listed on The NASDAQ Capital Market, trading in our common stock may be halted or suspended due to market conditions or if NASDAQ, CONSOB or the Borsa Italiana determine that trading in our common stock is inadvisable. Trading in our common stock was halted by the Borsa Italiana on February 10, 2009, and, as a consequence, trading in our common stock was also halted by NASDAQ. After we provided CONSOB with additional information and clarification on our business operations and financial condition, as requested, and published a press release containing such information in Italy, the Borsa Italiana and NASDAQ lifted the trading halts on our common stock. In addition, on March 23, 2009, the Borsa Italiana halted trading of our common stock on the MTA and resumed trading prior to opening of the MTA the next day after we filed a press release regarding the explanatory paragraph in our auditor's reports on our December 31, 2008 and 2007 consolidated financial statements regarding their substantial doubt as to our ability to continue as a going concern.

Table of Contents

As a consequence, NASDAQ also halted trading in our common stock on March 23, 2009, but re-initiated trading later that day. Although we file press releases with CONSOB at the end of each month regarding our business and financial condition, CONSOB may make additional inquiries about our business and financial conditions at any time, and there can be no guarantee that the Borsa Italiana, CONSOB or NASDAQ will not halt trading in our shares again in the future.

If our common stock ceases to be listed for trading on The NASDAQ Capital Market or the MTA, or both, for any reason, or if trading in our stock is halted or suspended on The NASDAQ Capital Market or the MTA, or both, such events may harm the trading price of our securities, increase the volatility of the trading price of our securities and make it more difficult for investors to buy or sell shares of our common stock. Moreover, if our common stock ceases to be listed for trading on The NASDAQ Capital Market or if trading in our stock is halted or suspended on The NASDAQ Capital Market, we may become subject to certain obligations. In addition, if we are not listed on The NASDAQ Capital Market and/or if our public float falls below \$75 million, we will be limited in our ability to file new shelf registration statements on SEC Form S-3 and/or to fully use one or more registration statements on SEC Form S-3. We have relied significantly on shelf registration statements on SEC Form S-3 for most of our financings in recent years, so any such limitations may have a material adverse effect on our ability to raise the capital we need.

If we make any acquisitions, we will incur a variety of costs and may never realize the anticipated benefits.

If appropriate opportunities become available, we may attempt to acquire businesses that we believe are a strategic fit with our business. We currently have no agreements to consummate any material acquisitions. If we pursue any such transaction, the process of negotiating the acquisition and integrating an acquired business may result in operating difficulties and expenditures and may require significant management attention that would otherwise be available for ongoing development of our business, whether or not any such transaction is ever consummated. Moreover, we may never realize the anticipated benefits of any acquisition. Future acquisitions could result in potentially dilutive issuances of equity securities, the incurrence of debt, contingent liabilities and/or amortization expenses related to goodwill and other intangible assets, which could harm our business, financial condition, operating results and prospects and the trading price of our securities.

Risks Related to this Offering

We are conducting this offering without an underwriter or placement agent and may be unable to sell the securities.

This offering is self-underwritten and we have not engaged the services of an underwriter or placement agent. We intend to sell the shares of Series 8 Preferred Stock, warrants, additional investment right and Series 9 Preferred Stock through our executive officers and directors, who will receive no commissions or other remuneration for such services. There can be no assurance that our executive officers and directors will be successful in selling any of the securities offered hereby or that we will receive any proceeds from this offering.

There is no minimum number of securities that must be sold by us for this offering to proceed and there can be no assurance that this offering will be successful.

There is no minimum number of securities that must be sold by us for this offering to proceed and there can be no assurance that this offering will be successful. Even if this offering proceeds, the closing may not occur if the closing bid price of our common stock falls below \$0.2908 during the nine trading days following the date of this prospectus supplement and no portion of the warrants or the additional investment right have been exercised. Alternatively, the closing may occur for less than the full proceeds if the closing bid price of our common stock falls below \$0.2908 during the nine trading days following the date of this prospectus supplement and a portion of the warrants or the additional investment right have been exercised. In either case, we will not receive the full proceeds from this offering. In addition, even if this offering proceeds, we may not receive cash upon the exercise of the warrants or the additional investment right since they may be exercised through the issuance of recourse notes. Accordingly, you should not rely on the success of this offering to address our funding needs. If we fail to raise

Table of Contents

sufficient capital in this offering, we may seek alternative debt, equity or equity-based financing (such as convertible debt) when market conditions permit. Such financing may not be available on favorable terms, or at all.

There is no public market for the Series 8 Preferred Stock, the warrants, the additional investment right or the Series 9 Preferred Stock being offered in this offering.

There is no established public trading market for the Series 8 Preferred Stock, the warrants, the additional investment right or the Series 9 Preferred Stock 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 8 Preferred Stock, the warrants, the additional investment right or the Series 9 Preferred Stock on any securities exchange. Without an active market, the liquidity of the Series 8 Preferred Stock, the warrants, the additional investment right and the Series 9 Preferred Stock will be limited.

Purchasers of Series 9 Preferred Stock and warrants who convert their Series 9 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 9 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 9 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 8 Preferred Stock will have no rights as a holder of common stock.

The shares of Series 8 Preferred Stock are not convertible into shares of common stock and holders of Series 8 Preferred Stock will have no rights with respect to our common stock. In addition, the shares of Series 8 Preferred Stock are redeemable at our option only and, until such time as we elect to redeem outstanding shares of Series 8 Preferred Stock, holders of Series 8 Preferred Stock are only entitled to receive dividends payable in additional shares of Series 8 Preferred Stock.

Holders of our Series 9 Preferred Stock and 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 9 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 9 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.

There may be certain U.S. federal income tax consequences associated with the acquisition, ownership or disposition of the securities offered in this offering.

An investment in the securities offered hereby involves complex federal, state, local and foreign tax considerations that will differ for each prospective investor. For example, in certain cases investors may have to report taxable income in advance of receipt of cash, and certain non-U.S. investors may be subject to withholding taxes (and will not be entitled to any additional amounts to compensate them for such withholding taxes). In addition, new tax legislation may be enacted into law or new interpretations, rulings or regulations could be adopted, any of which could harm us and holders of securities offered hereby, potentially with retroactive effect. You are strongly urged to consult with your own professional advisers as to the federal, state, local and foreign tax consequences of the acquisition, ownership and disposition of the securities offered hereby.

Table of Contents

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 the Series 8 Preferred Stock, the Series 9 Preferred Stock and 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 and our preferred stock 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. Furthermore, 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 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. Furthermore, our existing and future preferred stock, warrants or other securities convertible into or exchangeable for our common stock may contain adjustment provisions that could increase the number of shares issuable upon exercise, conversion or exchange, as the case may be, and decrease the exercise, conversion or exchange price. 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, the triggering of any such adjustment provisions, or the perception that such sales could occur in the future.

The market price of our 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 January 12, 2011, our stock price has ranged from a low of \$0.12 to a high of \$1.40. 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;

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

our issuance of additional debt, equity or other securities, which we need to pursue in 2011 to generate additional funds to cover our current debt and operating expenses;

S-16

Table of Contents

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, we and certain of our officers and directors are named as defendants in purported securities class action and shareholder derivative lawsuits brought on behalf of a putative class of purchasers of our securities from May 5, 2009 through March 19, 2010. These lawsuits seek unspecified damages and, 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 these lawsuits 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 currently face or 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.

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

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

S-17

Table of Contents

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.

S-18

Table of Contents

USE OF PROCEEDS

We estimate that the net proceeds of this offering, assuming gross proceeds of \$25 million (which is the amount of gross proceeds to be received if we sell all of the shares of Series 8 Preferred Stock and warrants offered hereby), after deducting our estimated offering expenses, including the commitment fee and excluding the proceeds, if any, from the exercise of the warrants and the additional investment right for cash, will be approximately \$23.4 million. However, we may not be successful in selling any or all of the securities offered hereby and the amount of net proceeds of this offering may differ significantly from our estimate above.

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 September 30, 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 may also use a portion of the net proceeds from this offering to fund possible investments in, or acquisitions of, complementary businesses, technologies or products. We have recently engaged in limited discussions with third parties regarding such investments or acquisitions, but we have no current agreements or commitments with respect to any investment or acquisition. We can provide no assurance that we will enter into any such agreements or commitments or consummate any such investments or acquisitions.

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 businesses, 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.

Table of Contents

DETERMINATION OF OFFERING PRICE

Prior to this offering, there was no public market for the Series 8 Preferred Stock, the warrants, the additional investment right or the Series 9 Preferred Stock. The terms and conditions of the Series 8 Preferred Stock, including the dividend rate and the redemption feature, the warrants, including the exercise price, the additional investment right, including the exercise price, and the Series 9 Preferred Stock, including the conversion price, were determined by us and the Initial Purchaser. 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 us;

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;

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

other factors deemed relevant by us and the Initial Purchaser.

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:

	Nine months ended		Year ended December 31,			
	September 30, 2010	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 nine months ended September 30, 2010, and 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 \$113.4, \$116.8, \$202.9, \$148.3, \$135.8 and \$102.5 (in millions), respectively. For this reason, no ratios are provided for these periods.

Table of Contents

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.

S-22

Table of Contents

DESCRIPTION OF SERIES 8 PREFERRED STOCK

The material terms and provisions of the Series 8 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 8 Preferred Stock set forth in the articles of amendment to our amended and restated articles of incorporation to be filed as an exhibit to a Current Report on Form 8-K, which we expect to file with the SEC in connection with this offering.

Rank

The Series 8 Preferred Stock will, with respect to rights upon our liquidation, dissolution or winding up, rank senior to our common stock and *pari passu* with our Series 9 Preferred Stock. The Series 8 Preferred Stock will be senior to the Series 9 Preferred Stock as to dividends.

Dividends

Holders of the Series 8 Preferred Stock are entitled to receive annual dividends on each outstanding share of Series 8 Preferred Stock, which shall accrue in the form of additional shares of Series 8 Preferred Stock at a rate equal to 10.0% per annum from the issuance date of the Series 8 Preferred Stock. Accrued dividends shall be payable upon redemption of the Series 8 Preferred Stock. Any calculation of the amount of dividends payable on shares of Series 8 Preferred Stock shall be made based on a 365-day year and on the number of days actually elapsed during the applicable period, compounded annually, and shall be rounded down to the nearest \$1,000.

Liquidation Preference

In the event of our voluntary or involuntary dissolution, liquidation or winding up, each holder of shares of Series 8 Preferred Stock will be entitled to be paid a liquidation preference equal to the initial stated value of such holder's Series 8 Preferred Stock of \$1,000 per share, 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 8 Preferred Stock in respect of liquidation. In the event that the amount available for payment of this liquidation preference is less than the full amount of the stated value of all shares of Series 8 Preferred Stock and Series 9 Preferred Stock then outstanding, the assets to be distributed to the holders of the Series 8 Preferred Stock will be ratably distributed among such holders and holders of Series 9 Preferred Stock 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 8 Preferred Stock is not convertible.

Redemption

The Series 8 Preferred Stock, including any shares of Series 8 Preferred Stock representing accrued and unpaid dividends, is redeemable at our option at any time after issuance, either in cash or by offset against recourse notes. In the event that we elect to redeem shares of Series 8 Preferred Stock by offset against recourse notes, each share of Series 8 Preferred Stock (plus accrued dividends thereon, if any) shall be fully offset by \$1,350 principal amount of recourse notes (plus accrued interest thereon, if any), regardless of the issuance date of the shares of Series 8 Preferred Stock and recourse notes.

Voting Rights and Negative Covenants

The Series 8 Preferred Stock shall have no voting rights, except to the extent expressly provided in our amended and restated articles of incorporation or as otherwise required by law.

So long as at least 8,000 or more originally issued shares of Series 8 Preferred Stock are outstanding, we cannot, without the affirmative consent of holders of a majority of the outstanding Series 8 Preferred Stock:

amend our amended and restated articles of incorporation, amended and restated bylaws or other charter documents so as to materially, specifically and adversely affect the rights of any holder with respect to the Series 8 Preferred Stock;

authorize or create any class or series of stock ranking senior to the Series 8 Preferred Stock as to dividend rights in respect of additional shares of Series 8 Preferred Stock or liquidation preference; or

enter into any agreement or understanding with respect to any of the foregoing.

S-23

Table of Contents

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 a Current Report on Form 8-K, which we expect to file with the SEC in connection with this offering.

General

The warrants are exercisable immediately and expire two years after the date of issuance, provided that the warrants must be exercised simultaneously with the exercise of the additional investment right such that the percentage of the warrants that have been exercised will always equal or exceed the percentage of the additional investment right that has been exercised. The warrants will be exercisable, from time to time at the option of the holder, upon the surrender of the warrants to us and the payment of the exercise price of the shares of common stock being acquired upon exercise of the warrants in cash or, provided that the Initial Purchaser is solvent, through the issuance by the Initial Purchaser to us of recourse notes. The exercise price per share of common stock purchasable upon exercise of the warrants is \$0.3878 per share of common stock being purchased. The exercise price (and, in certain circumstances, the number of shares of common stock issuable upon exercise of the warrants) is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock.

In the event that no portion of the warrants and/or the additional investment right has been exercised prior to the early termination date, the closing will be cancelled and the warrants will automatically terminate on the early termination date. In the event that all or any portion of the warrants and/or the additional investment right have been exercised prior to the early termination date, we may (i) require the Initial Purchaser to purchase the adjusted number of shares of common stock upon exercise of the warrants, in which case the balance of the unexercised portion of the warrants in excess of the adjusted number of warrants will automatically terminate on the early termination date, or (ii) elect to cancel the closing, in which case the unexercised warrants will automatically terminate on the early termination date.

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.

The warrants will not be listed on any national securities exchange.

As of January 12, 2011, other warrants to purchase approximately 95.8 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 9.99% or more of our common stock. 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. To the extent that such limitation applies, the holder shall first be required to convert outstanding shares of Series 9 Preferred Stock into common stock, subject to such limitation, until the holder no longer owns any shares of Series 9 Preferred Stock prior to exercising the warrants.

Table of Contents

DESCRIPTION OF ADDITIONAL INVESTMENT RIGHT

The material terms and provisions of the additional investment right 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 Securities Purchase Agreement to be filed as an exhibit to a Current Report on Form 8-K, which we expect to file with the SEC in connection with this offering.

General

The additional investment right is exercisable immediately and must be exercised in full within 30 days of the date of this prospectus supplement. The additional investment right may be exercised by the Initial Purchaser in whole or in part in one or more tranches during such period, at such times as may be determined by the Initial Purchaser. The exercise price of the additional investment right may be paid in cash or, provided that the Initial Purchaser is solvent, through the issuance by the Initial Purchaser to us of recourse notes. The exercise price per share of Series 9 Preferred Stock purchasable upon exercise of the additional investment right is \$1,000 per share of Series 9 Preferred Stock being purchased.

In the event that no portion of the additional investment right and/or the warrants has been exercised prior to the early termination date, the closing will be cancelled and the additional investment right will automatically terminate on the early termination date. In the event that all or any portion of the additional investment right and/or the warrants have been exercised prior to the early termination date, we may (i) require the Initial Purchaser to purchase the adjusted number of shares of Series 9 Preferred Stock upon exercise of the additional investment right, in which case the balance of the unexercised portion of the additional investment right in excess of the adjusted additional investment right will automatically terminate on the early termination date, or (ii) elect to cancel the closing, in which case the unexercised additional investment right will automatically terminate on the early termination date.

The additional investment right will not be listed on any national securities exchange.

Table of Contents**DESCRIPTION OF SERIES 9 PREFERRED STOCK**

The material terms and provisions of the Series 9 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 9 Preferred Stock set forth in the articles of amendment to our amended and restated articles of incorporation to be filed as an exhibit to a Current Report on Form 8-K, which we expect to file with the SEC in connection with this offering.

Rank

The Series 9 Preferred Stock will, with respect to rights upon our liquidation, dissolution or winding up, rank senior to our common stock and *pari passu* with our Series 8 Preferred Stock, and, with respect to dividend rights, senior to our common stock.

Dividends

Holders of Series 9 Preferred Stock are entitled to receive dividends on shares of the Series 9 Preferred Stock equal (on an as if converted to common stock basis) to and in the same form as dividends actually paid on shares of our common stock or other junior securities. All accrued but unpaid dividends on the Series 9 Preferred Stock shall increase the stated value of the Series 9 Preferred Stock, but when such dividends are actually paid such increase shall be rescinded.

So long as any Series 9 Preferred Stock remains outstanding, neither we nor any of our subsidiaries may redeem, purchase or otherwise acquire directly or indirectly any material amount of junior or *pari passu* securities, except as permitted in Voting Rights and Negative Covenants below.

Liquidation Preference

In the event of our voluntary or involuntary dissolution, liquidation or winding up, each holder of shares of Series 9 Preferred Stock will be entitled to be paid a liquidation preference equal to the initial stated value of such holder's Series 9 Preferred Stock of \$1,000 per share, 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 9 Preferred Stock. In the event that the amount available for payment of this liquidation preference is less than the full amount of the stated value of all shares of Series 8 Preferred Stock and Series 9 Preferred Stock then outstanding, the assets to be distributed to the holders of the Series 9 Preferred Stock will be ratably distributed among such holders and holders of Series 8 Preferred Stock in accordance with the respective amounts that would be payable on such holder's shares if the liquidation preference was paid in full.

Conversion***Optional Conversion***

The Series 9 Preferred Stock shall be convertible at the option of the holders thereof at any time after issuance into the number of registered shares of common stock determined by dividing the aggregate stated value of the Series 9 Preferred Stock being converted by the conversion price then in effect. The initial conversion price is \$0.3878 and is subject to adjustment as described below. This right to convert is limited by the beneficial ownership limitation described below.

Automatic Conversion

On the first to occur of (i) the date on which 1,000 or less shares of Series 9 Preferred Stock remain outstanding or (ii) the date on which our board of directors determines in good faith to do a reverse stock split with respect to our common stock in order to achieve compliance with the listing rules of The NASDAQ Capital Market or for other good faith business reasons, all outstanding shares of Series 9 Preferred Stock shall automatically convert into the number of registered shares of common stock determined by dividing the aggregate stated value of the Series 9 Preferred Stock being converted by the conversion price then in effect. This automatic conversion is limited by the beneficial ownership limitation described below.

Table of Contents

Beneficial Ownership Limitation

We may not effect a conversion, and no holder may request conversion, of the Series 9 Preferred Stock to the extent that, following such conversion, the holder and its affiliates would beneficially own more than 9.99% of our common stock. In the event of an automatic conversion, the conversion threshold will increase to 19.99% without any further action on the part of a holder. The amount of beneficial ownership of a 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 common stock on shares of 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 our capital stock, the conversion price will be adjusted by multiplying the then-existing conversion price 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.

Rights Offerings. If we issue rights, options or warrants to holders of 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 9 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 volume 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 (other than as a dividend) 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 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 9 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; provided, however, that for the purposes of this bullet, a fundamental transaction shall not include us entering into a license or other agreement that licenses any intellectual property to an unaffiliated and unrelated person so long as we and our subsidiaries continue to have bona fide, substantial and continuing business operations and activities after such license or other agreement is entered into;

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

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

Table of Contents

If the holders of common stock are given a choice as to the securities, cash or property to be received in a fundamental transaction, the holders of Series 9 Preferred Stock will be given the same choice on conversion of such holder's shares.

Voting Rights and Negative Covenants

The Series 9 Preferred Stock shall have no voting rights, except to the extent expressly provided in our amended and restated articles of incorporation or as otherwise required by law. However, so long as at least 20% of the aggregate initially issued shares of Series 9 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 9 Preferred Stock:

amend our amended and restated articles of incorporation, amended and restated bylaws or other charter documents so as to materially, specifically and adversely affect the rights of any holder with respect to the Series 9 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 9 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.

Table of Contents

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 amended and restated bylaws and all applicable provisions of Washington law.

General

We are authorized to issue 1,200,000,000 shares of common stock, no par value, and 10,000,000 shares of preferred stock, no par value. As of January 12, 2011, there were 813,704,299 shares of common stock outstanding, warrants to purchase approximately 95.8 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.

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 effects 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 our 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 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 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

Table of Contents

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 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 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.

Our 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 Trust Company, N.A.

Table of Contents

CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS

The following discussion describes certain U.S. federal income tax consequences to U.S. Holders (as defined below) associated with the purchase, ownership, conversion or exercise, as the case may be, and disposition of the Series 8 Preferred Stock, Series 9 Preferred Stock, warrants and the additional investment right and the ownership and disposition of shares of common stock issuable upon conversion of Series 9 Preferred Stock and exercise of the warrants. This discussion is based upon the provisions of the Internal Revenue Code of 1986, as amended, or the Code, the final and temporary U.S. Department of the Treasury, or the Treasury, regulations promulgated thereunder and administrative rulings and judicial decisions in effect as of the date of this prospectus supplement, all of which are subject to change (possibly with retroactive effect) or different interpretations. This summary does not purport to deal with all aspects of U.S. federal income taxation that may be relevant to an investor's decision to purchase the securities offered hereby, nor any tax consequences arising under the laws of any state, locality or foreign jurisdiction. This summary is not intended to be applicable to all categories of investors, such as dealers in securities, banks, thrifts, or other financial institutions, insurance companies, regulated investment companies, tax-exempt organizations, partnerships and other entities classified as partnerships for U.S. federal income tax purposes or investors therein, S corporations and any investors therein, U.S. expatriates, persons that hold the Series 8 Preferred Stock, Series 9 Preferred Stock or common stock as part of a straddle, conversion transaction or hedge, persons deemed to sell the securities offered hereby under the constructive sale provisions of the Code, persons whose functional currency is other than the U.S. dollar, holders subject to the alternative minimum tax, or holders that are not U.S. Holders, each of which may be subject to special rules. In addition, this discussion is limited to U.S. Holders who hold the securities offered hereby as capital assets (generally, property held for investment) within the meaning of Section 1221 of the Code and who purchase their securities pursuant to this offering.

A U.S. Holder means a beneficial owner of securities offered hereby who is for U.S. federal income tax purposes:

an individual citizen or resident of the United States;

a corporation (or other entity taxable as a corporation) created or organized in or under the laws of the United States, any state thereof or the District of Columbia;

an estate the income of which is subject to U.S. federal income taxation regardless of its source; or

a trust if it (1) is subject to the primary supervision of a court within the United States and one or more U.S. persons have the authority to control all substantial decisions of the trust or (2) has a valid election in effect under applicable Treasury regulations to be treated as a U.S. person.

If a partnership or other entity or arrangement treated as a partnership for U.S. federal income tax purposes holds securities, the tax treatment of a partner will generally depend upon the status of the partner and the activities of the partnership. If you are a partner of a partnership purchasing securities, we urge you to consult your own tax advisor.

THIS SECTION IS NOT A SUBSTITUTE FOR CAREFUL TAX PLANNING. YOU SHOULD CONSULT YOUR OWN TAX ADVISOR REGARDING THE SPECIFIC FEDERAL, STATE, LOCAL, FOREIGN AND OTHER TAX CONSEQUENCES TO YOU REGARDING THE PURCHASE, OWNERSHIP AND SALE OF THE SECURITIES BEING OFFERED BY THIS PROSPECTUS. YOU SHOULD ALSO CONSULT WITH YOUR TAX ADVISOR REGARDING THE IMPACT OF POTENTIAL CHANGES IN THE APPLICABLE TAX LAWS.

Allocation of Purchase Price

Because a U.S. Holder is acquiring Series 8 Preferred Stock and is also receiving the additional investment right and the warrants, the purchase price may need to be allocated between the Series 8 Preferred Stock, the additional investment right and the warrants based on their respective fair market values.

Table of Contents

Exercise of Warrants or Additional Investment Right

Upon exercise by a U.S. Holder of the warrants or additional investment right, as applicable, the U.S. Holder's basis in the warrants, or additional investment right, as applicable, will be added to such U.S. Holder's basis in the common stock, or Series 9 Preferred Stock, as applicable, received in exchange therefor. The U.S. Holder's holding period with respect to the common stock or Series 9 Preferred Stock, as applicable, begins on the day after exercise.

Distributions

Series 9 Preferred Stock and Common Stock Actual Distributions

The amount of any distribution to a U.S. Holder with respect to our Series 9 Preferred Stock or common stock will be treated as a dividend, to the extent of our current or accumulated earnings and profits (earnings and profits), as determined under U.S. federal income tax principles. To the extent the amount of such distribution exceeds our earnings and profits, the excess will be applied against and will reduce a U.S. Holder's tax basis (on a dollar-for-dollar basis) in the Series 9 Preferred Stock or common stock, as the case may be. Any amount in excess of a U.S. Holder's tax basis will be taxable as capital gain.

Series 8 Preferred Stock Deemed Distributions

The Series 8 Preferred Stock likely will be considered preferred stock with a mandatory redemption feature within the meaning of the Treasury Regulations issued under Section 305 of the Code, with the result that there is a redemption premium that must be accrued under principles similar to those that apply with respect to debt instruments issued with original issue discount, or OID. Given the accrual of dividends on the Series 8 Preferred Stock and certain other features (including the possible allocation of amounts to the warrants and the additional investment right, as described above), it is expected that U.S. Holders of Series 8 Preferred Stock will have constructive or deemed distributions of additional stock under Section 305(c) of the Code. Such deemed distributions will be treated as actual distributions of preferred stock, which should constitute dividends, a return of capital or capital gain in the same manner as actual cash distributions on the Series 9 Preferred Stock or common stock, as discussed above under the heading *Distributions Series 9 Preferred Stock and Common Stock Actual Distributions*. Deemed distributions treated as dividends will be includible in the taxable income of a U.S. Holder in advance of the receipt of any corresponding cash payments from us. Accordingly, as with OID (if the Series 8 Preferred Stock were classified as debt for U.S. federal income tax purposes), U.S. Holders may need to fund their tax liability resulting from their investment in the Series 8 Preferred Stock from other sources.

U.S. Holders should consult their own tax advisors about the possibility and the tax consequences to them of the receipt of deemed distributions on the Series 8 Preferred Stock.

Dividends to Corporate Shareholders

In general, an actual or deemed distribution which is treated as a dividend for U.S. federal income tax purposes (*i.e.*, paid out of our earnings and profits) and is made to a corporate shareholder with respect to the Series 8 Preferred Stock, Series 9 Preferred Stock or common stock may qualify for the 70% dividends-received deduction under Section 243 of the Code (subject to certain limitations and anti-abuse provisions, described below). There can be no assurance, however, that the amount of distributions made (or deemed made) with respect to the Series 8 Preferred Stock, Series 9 Preferred Stock or the common stock will exceed the amount of our earnings and profits currently or in the future. Accordingly, there can be no assurance that the dividends-received deduction will be available in respect of distributions on such preferred stock or common stock.

In addition, there are many exceptions and restrictions relating to the availability of such dividends-received deduction such as restrictions relating to:

the holding period of stock the dividends on which are sought to be deducted;

debt-financed portfolio stock;

Table of Contents

dividends treated as extraordinary dividends for purposes of Section 1059 of the Code; and

taxpayers that pay corporate alternative minimum tax.

Corporate shareholders should consult their own tax advisors regarding the extent, if any, to which such exceptions and restrictions may apply to their particular situation.

Adjustment of Conversion Price

U.S. Holders of Series 9 Preferred Stock may, in certain circumstances, be deemed to have received constructive distributions of stock if the conversion rate for such preferred stock is adjusted. Adjustments to the conversion price made pursuant to a bona fide reasonable adjustment formula that has the effect of preventing the dilution of the interest of the holders of the preferred stock (and not increasing their interest in us or our assets), however, generally will not be considered to result in a constructive distribution of stock. Certain of the possible adjustments provided in the anti-dilution provisions of the Series 9 Preferred Stock, including, without limitation, adjustments in respect of stock dividends or the distribution of rights to subscribe for common stock should qualify as being pursuant to a bona fide reasonable adjustment formula and should not result in a constructive distribution. In contrast, other adjustments may not qualify as being pursuant to a bona fide reasonable adjustment formula. Accordingly, in certain circumstances U.S. Holders of Series 9 Preferred Stock may be deemed to have received constructive distributions in amounts based upon the value of such holders' increased interests in our equity resulting from such adjustments. The amount of the distribution will be treated as a distribution to a holder with the tax consequences specified above. Accordingly, U.S. Holders of Series 9 Preferred Stock could be considered to have received distributions taxable as dividends to the extent of our earnings and profits even though they did not receive any cash or property as a result of such adjustments.

Sale or Other Disposition

Upon a sale, exchange or other disposition of Series 8 Preferred Stock, Series 9 Preferred Stock or common stock (other than an exchange of Series 9 Preferred Stock for common stock pursuant to the conversion privilege which is discussed below), a U.S. Holder generally will recognize capital gain or loss equal to the difference between the amount of cash and the fair market value of property received on the sale, exchange or other disposition of the Series 8 Preferred Stock, Series 9 Preferred Stock or common stock and the U.S. Holder's adjusted tax basis in the Series 8 Preferred Stock, Series 9 Preferred Stock or common stock, as applicable. Such capital gain or loss will be long-term capital gain or loss if the holding period for the Series 8 Preferred Stock, Series 9 Preferred Stock or common stock, as applicable, is more than one year. Long-term capital gains may qualify for reduced rates under U.S. federal income tax laws.

We may elect to redeem the Series 8 Preferred Stock at our option at any time after issuance, either in cash or by cancellation of notes with an aggregate principal amount of 135% of the aggregate stated value of the shares of Series 8 Preferred Stock being redeemed. The U.S. federal income tax treatment of such a redemption to a U.S. Holder will depend on the particular facts relating to such holder at the time of the redemption. A redemption generally will be treated as capital gain or loss from the sale or other disposition of the Series 8 Preferred Stock (as discussed in the preceding paragraph), if, taking into account stock that is actually or constructively owned as determined under Section 318 of the Code:

the U.S. Holder's interest in our common and preferred stock is completely terminated as a result of such redemption;

the U.S. Holder's percentage ownership in our voting stock immediately after such redemption is less than 80% of its percentage ownership immediately before such redemption; or

such redemption is not essentially equivalent to a dividend (within the meaning of Section 302(b)(1) of the Code).

Table of Contents

If none of the above tests giving rise to sale treatment is satisfied, then a payment made in redemption of the Series 8 Preferred Stock generally will be treated as a distribution that is taxable in the same manner as described above in *Distributions Series 9 Preferred Stock and Common Stock Actual Distributions* and, if applicable, *Distributions Dividends to Corporate Shareholders* and the U.S. Holder's adjusted tax basis in the redeemed Series 8 Preferred Stock will be transferred to any remaining shares it hold in us. If a U.S. Holder does not retain any stock ownership in us following such redemption, then it may lose its basis completely.

If we elect to redeem the Series 8 Preferred Stock by cancelling notes, a U.S. Holder may have to realize cancellation of debt income, or COD income. In general, COD income is the amount by which the face amount of the discharged indebtedness exceeds any consideration given in exchange therefor. In certain cases a U.S. Holder may be able to defer or even exclude COD income. The rules governing COD income are complex, and U.S. Holders are urged to consult their own tax advisors in this regard.

Conversion of Series 9 Preferred Stock

A U.S. Holder generally will not recognize gain or loss by reason of receiving common stock in exchange for Series 9 Preferred Stock upon conversion of such preferred stock. The adjusted tax basis of the common stock so acquired will be equal to the U.S. Holder's tax basis in the shares of Series 9 Preferred Stock exchanged, and the holding period of the common stock received will include the holding period of the Series 9 Preferred Stock exchanged. The tax basis of any common stock treated as a constructive distribution will be equal to its fair market value on the date of the exchange, and the holding period of such common stock will commence on the day after the exchange.

Backup Withholding

Under the backup withholding provisions of the Code and applicable Treasury Regulations, a U.S. Holder may be subject to backup withholding with respect to dividends (including constructive dividends) paid on, or the proceeds of a sale, exchange or redemption of, Series 8 Preferred Stock, Series 9 Preferred Stock or common stock unless:

the U.S. Holder is a corporation or other exempt payee and appropriately establishes this exemption; or

the U.S. Holder or other payee provides a taxpayer identification number, certifies under penalties of perjury that such number is correct and otherwise complies with the backup withholding rules.

Backup withholding is not an additional tax. The amount of any backup withholding from a payment will be allowed as a credit against a U.S. Holder's U.S. federal income tax liability and may entitle it to a refund, provided that the required information is timely and properly furnished by such U.S. Holder to the Internal Revenue Service, or the IRS.

Possible Legislative or Other Actions Affecting Tax Consequences

U.S. Holders should recognize that the present U.S. federal income tax treatment described above may be modified by legislative, judicial or administrative action at any time and that any such action may affect investments and commitments previously made. The rules dealing with U.S. federal income taxation are constantly under review by persons involved in the legislative process and by the IRS and the Treasury, resulting in revisions of regulations and revised interpretations of established concepts as well as statutory changes. Revisions in federal tax laws and interpretations thereof could affect the tax consequences of an investment in us.

Table of Contents

PLAN OF DISTRIBUTION

We are conducting this offering on a self-underwritten, best efforts basis and there will be no underwriter or placement agent involved in the sale of these securities. We intend to sell the shares of Series 8 Preferred Stock at a fixed price of \$1,000 per share to the Initial Purchaser. We currently anticipate that the closing of the sale of the shares of common stock will occur on January 27, 2011.

These securities will be sold on our behalf by our executive officers and directors. We are relying upon Rule 3a4-1 promulgated under the Exchange Act, or Rule 3a4-1, to not deem our executive officers and directors as brokers. None of our executive officers or directors is a registered broker-dealer or an affiliate of a broker-dealer, and to the extent that our executive officers and directors sell these securities, no commissions or other remuneration based either directly or indirectly on transactions in securities will be paid to such persons. In addition, our executive officers and directors will conduct their selling activities in accordance with paragraph (a)(4)(ii) of Rule 3a4-1, in that each person primarily performs substantial duties for the issuer other than in connection with transactions in securities, each person is not a broker or dealer or affiliated with a broker or dealer in the last twelve months and each person does not participate in selling an offering of securities more than once every twelve months other than as permitted under Rule 3a4-1.

The estimated offering expenses payable by us in connection with this offering are \$1.6 million, which include the commitment fee and legal, accounting and printing costs and various other fees associated with registering and listing the shares of common stock with the SEC and NASDAQ, respectively.

We are subject to a lock-up agreement for a period of 60 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 Purchaser, (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. However, during the lock-up period, we are permitted to negotiate and/or otherwise prepare to consummate a transaction following the expiration of the lock-up period so long as we do not publicly announce the transaction prior to the expiration of the lock-up period. The lock-up agreement does not apply to (a) the securities to be issued and sold in this offering or issuable upon conversion or exercise of the Series 9 Preferred Stock and warrants, (b) issuances of shares of common stock issuable upon conversion or exchange of currently outstanding convertible notes, (c) issuances of shares of common stock upon the exercise of currently outstanding warrants or amendments to the warrant agreements related thereto, (d) granting options or other securities under our incentive compensation plans existing on the date of this prospectus supplement or issuances of shares of common stock issuable in connection with outstanding awards thereunder as of the date of this prospectus supplement, (e) issuances of shares of common stock issuable pursuant to agreements in effect as of the date of this prospectus supplement or amendments related thereto, (f) issuances of shares of common stock in connection with strategic acquisitions, or (g) issuances of shares of common stock subject to shareholder approval; provided, however, that in the case of clauses (b) and (c) above, no shares of common stock shall be issued as a result of an amendment to such securities after the date of this prospectus supplement and prior to the expiration of the lock-up period.

We have also agreed that for a period of 60 days following the date of this prospectus supplement, we will not, without the prior written consent of the Initial Purchaser, combine (including by way of reverse stock-split) our outstanding shares of common stock into a smaller number of shares or publicly announce our intention to effect a combination, either in a press release, proxy or other regulatory filing or similar notification to the public.

The Securities Purchase Agreement with the Initial Purchaser will be included as an exhibit to a Current Report on Form 8-K that we expect to file with the SEC in connection with this offering.

Table of Contents

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.

S-36

Table of Contents

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

Table of Contents

TABLE OF CONTENTS

<u>ABOUT THIS PROSPECTUS</u>	1
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	1
<u>INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE</u>	2
<u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	2
<u>RATIO OF EARNINGS TO COMBINED FIXED CHARGES AND PREFERRED STOCK DIVIDENDS</u>	4
<u>USE OF PROCEEDS</u>	4
<u>DIVIDEND POLICY</u>	4
<u>LEGAL MATTERS</u>	4
<u>EXPERTS</u>	4

Table of Contents

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.

Table of Contents

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.

Table of Contents

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.