

CELL THERAPEUTICS INC
Form 424B5
December 04, 2008
Table of Contents

Filed Pursuant to Rule 424(b)(5)
File Nos. 333-131533,

333-149982 and

333-153358

PROSPECTUS SUPPLEMENT

(to Prospectus dated September 19, 2008)

CELL THERAPEUTICS, INC.

\$32,651,321 of 10% Convertible Senior Notes due December 5, 2011

\$6,000,000 of Series C 10% Convertible Senior Notes Issuable Pursuant to Issuer's Put Option

282,126,430 Shares of Common Stock Underlying the Notes

Pursuant to this prospectus and the accompanying prospectus supplement, we are offering to a single institutional investor (a) \$32,651,321 of our 10% Convertible Senior Notes due December 5, 2011 (the "Notes"), (b) up to \$6,000,000 of our Series C 10% Convertible Senior Notes due approximately January 2012 (to be determined) (the "C Notes" and, together with the Notes, the "notes") and (c) up to 282,126,430 shares of our common stock issuable upon conversion of the notes.

For a more detailed description of the notes, see the section entitled "Description of Notes" beginning on page S-27. For a more detailed description of our common stock issuable upon conversion of the notes, see the section entitled "Description of Capital Stock" beginning on page 24 of the accompanying prospectus.

The notes will not be redeemable prior to their maturity. There will be no sinking fund for the notes. The notes will be unsecured.

The notes will be pari passu in right of payment with all our existing and future senior unsecured debt.

It is not anticipated that the notes will be listed on a national securities exchange or automated inter-dealer quotation system. Our common stock is quoted on The NASDAQ Global Market and the MTA (formerly the MTAX) in Italy under the symbol "CTIC". On December 3, 2008, the last reported sale price of our common stock on The NASDAQ Global Market was \$0.13.

On August 31, 2008, we effected a 1-for-10 reverse split of our common stock. All figures in this prospectus supplement have been adjusted to reflect such reverse split.

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

Investing in our convertible notes and common stock involves a high degree of risk. See the section entitled Risk Factors beginning on page S-10 of this prospectus supplement.

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.

	<i>Total</i>
<i>Public Offering Price of Convertible Notes</i>	\$ 32,651,321
<i>Placement agency fees</i>	\$ 325,000
<i>Total proceeds to us before other expenses</i>	\$ 32,326,321

The Notes will be issued on or about December 5, 2008.

This prospectus supplement is dated December 4, 2008.

Table of Contents

TABLE OF CONTENTS

Prospectus Supplement

	Page
<u>About This Prospectus</u>	S-ii
<u>Special Note Regarding Forward-Looking Statements</u>	S-iii
<u>Summary</u>	S-1
<u>Risk Factors</u>	S-9
<u>Use of Proceeds</u>	S-26
<u>Dividend Policy</u>	S-26
<u>Description of Notes</u>	S-27
<u>Plan of Distribution</u>	S-36
<u>Legal Matters</u>	S-37
<u>Incorporation of Certain Information by Reference</u>	S-37

Prospectus

	Page
<u>About This Prospectus</u>	i
<u>Summary</u>	1
<u>Special Note Regarding Forward-Looking Statements</u>	9
<u>Risk Factors</u>	9
<u>Use of Proceeds</u>	23
<u>Description of Capital Stock</u>	24
<u>Description of Debt Securities</u>	26
<u>Description of Warrants</u>	31
<u>Legal Ownership of Securities</u>	34
<u>Plan of Distribution</u>	37
<u>Legal Matters</u>	39
<u>Experts</u>	39
<u>Where You Can Find More Information</u>	40

No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus supplement or related prospectus or to which we have referred you. You must not rely on any unauthorized information or representations. This prospectus supplement and related prospectus is an offer to sell only the securities offered hereby but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus supplement and related prospectus is current only as of its date, and the information contained in any document incorporated by reference in this prospectus is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus supplement and related prospectus or any sale of a security.

Table of Contents

ABOUT THIS PROSPECTUS

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into the accompanying prospectus. The second part is the accompanying prospectus, which gives more general information about the shares of our common stock and other securities we may offer from time to time under our shelf registration statement, some of which may not apply to the securities offered by this prospectus supplement. 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 therein, on the other hand, the information in this prospectus supplement shall control.

You should rely only on the information contained or incorporated by reference in this prospectus supplement and contained or incorporated by reference in the accompanying prospectus. We have not authorized anyone, including the placement agent, and the placement agent has not authorized anyone, to provide you with different information. We are offering to sell, and seeking offers to buy, our securities only in jurisdictions where offers and sales are permitted. The information contained or incorporated by reference in this prospectus supplement and contained, or incorporated by reference in the accompanying prospectus is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus, or of any sale of our securities offered hereby. It is important for you to read and consider all information contained in this prospectus supplement and the accompanying prospectus, including the documents incorporated by reference herein and therein, in making your investment decision. You should also read and consider the information in the documents we have referred you to in [Incorporation of Certain Information by Reference](#) in this prospectus supplement and [Where You Can Find More Information](#) in the accompanying prospectus.

Unless otherwise indicated, CTI, the Company, we, us, our and similar terms refer to Cell Therapeutics, Inc. and its subsidiaries. CTI, C and XYOTAX are our proprietary marks; we also own the rights to the mark Zevalin for use in the United States. All other product names, trademarks and trade names referred to in this prospectus supplement and the accompanying prospectus are the property of their respective owners.

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

In addition to the other information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus, you should carefully consider the risk factors contained in and incorporated by reference into this prospectus supplement and the accompanying prospectus when evaluating an investment in our common stock. This prospectus supplement and the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (Securities Act), and Section 21E of the Securities Exchange Act of 1934, as amended (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 items;

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

any statements concerning proposed new products or services;

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

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

any statements concerning proposed new products or services, 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 the use of terminology such as may , will , expects , plans , anticipates , estimates , potential , or continue or the negative thereof or other comparable terminology. 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 these 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 set forth in this prospectus. 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.

Table of Contents

SUMMARY

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

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.

On December 21, 2007, we completed our acquisition of the U.S. development, sales and marketing rights to the radiopharmaceutical product Zevalin® (Ibritumomab Tiuxetan), or Zevalin, from Biogen Idec Inc., or Biogen, pursuant to an Asset Purchase Agreement. Zevalin was the first radioimmunotherapy approved by the U.S. Food and Drug Administration, or FDA. It was approved in 2002 to treat patients with relapsed or refractory low-grade, follicular, or B-cell non-Hodgkin's lymphoma, or NHL. The assets acquired included the Zevalin FDA registration, FDA dossier, U.S. trademark, trade name and trade dress, customer list, certain patents and the assignment of numerous contracts. Additionally, we entered into a seventy-eight month supply agreement with Biogen to manufacture Zevalin for sale in the United States as well as a security agreement providing Biogen a first priority security interest in the assets purchased in the transaction. We made an upfront payment to Biogen of \$10.1 million at the time of closing and are also responsible for up to \$20 million in contingent milestone payments based on positive trial outcomes and FDA approval for label expansion. We are also obligated to make additional royalty payments based on net sales of Zevalin.

We are developing Zevalin for additional indications. Zevalin is a form of cancer therapy called radioimmunotherapy and is indicated for the treatment of patients with relapsed or refractory low-grade, follicular, or B-cell NHL, including patients with Rituximab-refractory follicular NHL. It was approved by the FDA in February 2002 as the first radioimmunotherapeutic agent for the treatment of NHL. At the American Society of Hematology meeting in December 2007, Bayer published the results of their FIT trial for Zevalin. In April 2008, based on these data, Bayer received approval from the European Medicines Commission for use of Zevalin in consolidation therapy after remission induction in previously untreated patients with follicular lymphoma.

On June 16, 2008, we entered into an Access Agreement with Bayer Schering Pharma AG, or Bayer, which holds the rights to Zevalin outside of the United States. Under the agreement, Bayer has given us access to data from Bayer's phase III first-line indolent trial, or FIT trial, of Zevalin. We submitted a supplemental Biologics License Application, or sBLA, for Zevalin on September 30, 2008 based on the FIT trial results. Under the terms of the agreement with Bayer, we made an initial payment to Bayer of \$2 million. Beginning January 1, 2009, we will also pay Bayer royalties on net sales of Zevalin until an aggregate of \$11.5 million in royalties has been paid to Bayer under the agreement.

We submitted a supplemental biologics license application, or sBLA, on September 30, 2008 for use of Zevalin in consolidation therapy of first remission in advanced stage follicular NHL. The FDA has granted us priority review status for this sBLA and a decision is targeted for April 2009. We also intend to file an sBLA to remove the requirement for a biodistribution scan from the Zevalin label in 2009. We will make an additional payment of \$3 million to Bayer if we are able to obtain FDA approval of an sBLA for Zevalin based on the FIT trial results and milestone payments to Biogen, which will be made by the LLC described below (assuming the completion of such transaction).

On November 26, 2008, we entered into an agreement with Spectrum Pharmaceuticals, Inc. to form a 50/50 owned joint venture, RIT Oncology LLC, to commercialize and develop Zevalin in the United States. Under terms of the agreement, upon the closing of the transaction the companies will become the sole members of a limited liability company (LLC) whose sole purpose would be to commercialize Zevalin in the United States. A Board of Managers comprised of an equal number of members from both companies would be established to govern the LLC. Both parties will equally provide for the future capital requirements of the LLC and share equally in the profits and losses of the LLC. We will receive an initial payment of \$7.5 million at closing and \$7.5 million in early January 2009, in addition to up to \$15 million product sales milestone payments upon achievement of certain revenue targets. In addition, we have renegotiated the contingent milestone payments payable to Biogen described above from \$20 million to \$15.5 million, which will be paid by the LLC. The closing of the joint venture transaction is subject to the satisfaction of certain customary closing conditions, including the consent of Biogen to convey the Zevalin-related assets to the LLC. We expect the transaction to close in December 2008.

On July 31, 2007, we completed our acquisition of Systems Medicine, Inc., or SM, a privately held oncology company, in a stock for stock merger valued at \$20 million. SM stockholders can also receive a maximum of \$15 million in additional consideration (payable in cash or stock at our election, subject to certain Nasdaq limitations on issuance of stock) upon the achievement of certain FDA regulatory milestones. Under

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

the agreement, SM became Systems Medicine LLC and operates as a wholly owned subsidiary of CTI. SM holds worldwide rights to use, develop, import and export brostallicin, a synthetic DNA minor groove binding agent that has demonstrated anti-tumor activity and a favorable safety profile in clinical trials in which more than 200 patients have been treated to date. SM currently uses a genomic-based platform to guide development of brostallicin; we expect to use that platform to guide development of our licensed oncology products in the future. SM also has a strategic affiliation with the Translational Genomics Research Institute, or TGen, and has the ability to use TGen's extensive genomic platform and high throughput capabilities to target a cancer drug's context-of-vulnerability, which is intended to guide clinical trials toward patient populations where the highest likelihood of success should be observed, thereby potentially lowering risk and shortening time to market.

We are developing OPAXIO (paclitaxel poliglumex), which we have previously referred to as XYOTAX, for the treatment of non-small cell lung cancer, or NSCLC, and ovarian cancer. As announced in March and May 2005, our STELLAR 2, 3 and 4 phase III clinical studies for OPAXIO did not meet their primary endpoints of superior

S-1

Table of Contents

overall survival. However, we believe that the reduction in toxicities coupled with superior convenience and less medical resource utilization demonstrated in the STELLAR 4 phase III clinical trial merits consideration for approval as single agent therapy for patients with advanced NSCLC who have poor performance status, or PS2. Currently there are no drugs approved for patients with PS2 NSCLC. On March 4, 2008, we submitted a Marketing Authorization Application, or MAA, to the European Medicines Agency, or EMEA, for first-line treatment of patients with advanced NSCLC who are PS2, based on a non-inferior survival and improved side effect profile which we believe was demonstrated in our STELLAR clinical trials. The application is based on a positive opinion we received from the EMEA's Scientific Advice Working Party, or SAWP; the EMEA agreed that switching the primary endpoint from superiority to noninferiority is feasible if the retrospective justification provided in the marketing application is adequate. The discussions with the SAWP focused on using the STELLAR 4 study as primary evidence of non-inferiority and the STELLAR 3 study as supportive of the MAA. The application was accepted for review in April 2008 and the MAA has now entered the marketing approval review process, which generally takes 15 to 18 months. Pursuant to an agreement entered into with Novartis Pharmaceutical Company Ltd. (Novartis) in September 2006, we have granted Novartis an exclusive worldwide license for the development and commercialization of OPAXIO.

We are also developing OPAXIO for women with pre-menopausal levels of estrogen who have advanced NSCLC with normal or poor performance status. The basis for this clinical study was in part related to a pooled analysis of STELLAR 3 and 4 phase III trials for treatment of first-line NSCLC patients who have PS2 which we believe demonstrates a statistically significant survival advantage among women receiving OPAXIO when compared to women or men receiving standard chemotherapy. A survival advantage for women over men was also demonstrated in a first-line phase II clinical trial of OPAXIO and carboplatin, known as the PGT202 trial, supporting the potential benefit observed in the STELLAR 3 and 4 trials. In December 2005, we initiated a phase III clinical trial, known as the PIONEER, or PGT305, study, for OPAXIO as first-line monotherapy in PS2 women with NSCLC. In December 2006, we agreed with the recommendation of the Data Safety Monitoring Board to close the PIONEER lung cancer clinical trial due, in part, to the diminishing utility of the PIONEER trial given our plans to submit a new protocol to the FDA. In early 2007, we submitted two new protocols under a Special Protocol Assessment, or SPA, to the FDA. The new trials, known as PGT306 and PGT307, focus exclusively on NSCLC in women with pre-menopausal estrogen levels, the subset of patients where OPAXIO demonstrated the greatest potential survival advantage in the STELLAR trials. We believe the lack of safe and effective treatment for women with advanced first-line NSCLC who have pre-menopausal estrogen levels represents an unmet medical need. We initiated the PGT307 trial in September 2007. Although the FDA has established the requirement that two adequate and well-controlled pivotal studies demonstrating a statistically significant improvement in overall survival will be required for approval of OPAXIO in the NSCLC setting, we believe that compelling results from a single trial, PGT307, along with supporting evidence from prior clinical trials, may enable us to submit a new drug application, or NDA, in the United States. In early 2008, we limited enrollment on the PGT307 study to U.S. sites only, until either approval of the MAA by the EMEA or until positive results from the GOG212 trial of OPAXIO for first-line maintenance therapy in ovarian cancer, discussed below, are reported.

We are also developing OPAXIO as potential maintenance therapy for women with advanced stage ovarian cancer who achieve a complete remission following first-line therapy with paclitaxel and carboplatin. This study, the GOG212 trial, is under the control of the Gynecologic Oncology Group and is expected to enroll 1,100 patients by early 2012. A potential interim analysis, based on the number of events in the database, is planned for late 2009 and, if successful, could lead to an NDA filing in 2010.

We are developing pixantrone, a novel anthracycline derivative, for the treatment of NHL. An interim analysis of our ongoing phase III study of pixantrone, known as the EXTEND or PIX301 study, was performed by the independent Data Monitoring Committee in the third quarter of 2006. Based on their review, the study continued. In September 2007, we announced that we had reduced the enrollment target and decided to conduct a full analysis of the EXTEND trial, instead of an interim analysis as previously planned. In March 2008, we completed enrollment of approximately 140 patients in the EXTEND trial. In November 2008, we achieved the primary efficacy endpoint in the EXTEND trial based on a preliminary intent to treat efficacy analysis. A pre-NDA meeting with the FDA is scheduled for January 2009 and we expect to begin submission of a rolling NDA to the FDA for pixantrone shortly thereafter. The FDA agreed that randomized safety data from the RAPID study (CHOP-R vs. CPOP-R) could be used to support the EXTEND results in an NDA submission for pixantrone. The RAPID, or PIX203, study is a phase II study in which pixantrone is substituted for doxorubicin in the CHOP-R regimen compared to the standard CHOP-R regimen in patients with previously untreated diffuse large B-cell lymphoma. An interim analysis of the RAPID study was reported in July 2007. The interim analysis of the study showed that to date a majority of patients on both arms of the study achieved a major objective anti-tumor response (complete response or partial response). Patients

Table of Contents

on the pixantrone arm of the study had clinically significant reductions in the incidence of severe heart damage, infections, and thrombocytopenia (a reduction in platelets in the blood) as well as significant reduction in febrile neutropenia. In early 2008, we closed enrollment on the RAPID trial because we had adequate sample size to demonstrate differences in cardiac events and other clinically relevant side effects between pixantrone and doxorubicin. Novartis has an option to negotiate an exclusive license for pixantrone pursuant to the worldwide license agreement entered into in September 2006 for OPAXIO, and should Novartis elect to exercise its option for pixantrone, we would receive a \$7.5 million license fee, plus additional milestone related payments.

We also launched a phase III trial of pixantrone in indolent NHL, the PIX303 trial, in September 2007, which was designed to evaluate the combination of fludarabine, pixantrone and rituximab versus fludarabine and rituximab in patients who have received at least one prior treatment for relapsed or refractory indolent NHL. We closed the PIX303 trial in early 2008 based on, among other considerations, our plans to refocus the Company's resources on obtaining pixantrone approval based on the EXTEND phase III trial before making additional substantive investments in alternative indications for pixantrone as well as the changing competitive landscape in second line follicular NHL. In May 2007, we received fast track designation from the FDA for pixantrone for the treatment of relapsed or refractory indolent NHL.

We are developing brostallicin, which is a small molecule, anti-cancer drug with a novel, unique mechanism of action and composition of matter patent coverage, through our wholly owned subsidiary, SM. Data in more than 200 patients treated with brostallicin in phase I/II clinical trials reveal evidence of activity in patients with refractory cancer and patient/physician-friendly dosage and administration. A phase II study of brostallicin in relapsed/refractory soft tissue sarcoma met its pre-defined activity and safety hurdles and resulted in a first-line phase II study that is currently being conducted by the European Organization for Research and Treatment of Cancer, or EORTC. Planned enrollment for this study was completed in August 2008 and data from that trial is expected to be available as early as early 2009. Additionally, we initiated a phase II myxoid liposarcoma trial in 2007 which was closed to enrollment in October 2008 due to changing business objectives. Brostallicin has also demonstrated synergy with new targeted agents as well as established treatments in preclinical trials; consequently, we began a multi-arm combination study with brostallicin and other agents, including Avastin (bevacizumab) which was substantially completed in the fourth quarter of 2008.

We are currently focusing our efforts on Zevalin, pixantrone, OPAXIO, and brostallicin.

CTI, OPAXIO and XYOTAX are our proprietary marks, and we also own the U.S. rights to the mark Zevalin. All other product names, trademarks and trade names referred to in this Form 10-K are the property of their respective owners.

As of September 30, 2008, we had incurred aggregate net losses of approximately \$1.3 billion since inception. We expect to continue to incur additional operating losses for at least the next couple of years.

Recent Developments

Debt and Equity Restructuring

We have a substantial amount of debt outstanding, and our annual interest expense with respect to our debt is significant. In December 2007 and February 2008, we completed partial restructurings of our convertible notes due

Table of Contents

in 2008, which retired a portion of such debt, extended the maturity date on certain such debt to 2011 and involved the issuance of additional shares of common stock to holders of the exchanged notes. The remaining approximately \$10.7 million of our 2008 convertible notes outstanding was paid at the notes' maturity on June 15, 2008. We have issued additional convertible notes in 2008 in connection with the financings described below with maturity dates in 2011 and 2012. We also have \$11 million of our preferred stock which becomes redeemable at various dates in 2009. We are currently exploring alternatives to restructure our outstanding debt and equity.

Restructuring of Resources

On January 30, 2008, we announced a plan to refocus our resources on late-stage and marketed products, which involves increasing sales of Zevalin in the United States and preparing the marketing applications for OPAXIO and pixantrone described above, while advancing the clinical development of brostallicin. This plan was intended to reduce operating expenses and projected net cash operating expenses in 2008. As part of these refocusing efforts, approximately 30 of our U.S. employees were terminated. We continue to explore ways to further reduce our operating expenses for the remainder of 2008 and for 2009.

In November 2007, the Company moved to reduce expenses related to having a subsidiary in Milan by converting our Bresso subsidiary into a corporate branch. This conversion reduced significant costs associated with legal and overlapping independent auditor expenses. In addition, given that a substantial portion of the capacity of the Bresso facility is currently underutilized, we are exploring a potential spin-off of such operations, together with other assets including development capabilities, which would also involve Systems Medicine and the novel computational technologies of TGEN. We are seeking to independently fund and operate Bresso as part of a new corporation we refer to as Apana. However, if we are unable to obtain independent funding for our Bresso operations we will consider other alternatives to reduce our expenses, including a sale or shutdown of the facility.

Lack of Liquidity

As of September 30, 2008 we had cash and cash equivalents, securities available-for-sale and interest receivable of approximately \$11.7 million, and total current liabilities of \$39.7 million. Our current cash and cash equivalents, securities available-for-sale and interest receivable continue to be significantly less than our total current liabilities. Currently, we do not have sufficient cash to fund our operations through the end of the fourth quarter of 2008 and we need to raise additional capital in order to meet our operational needs, which the sale of the Notes will provide. As described above, in November 2008 we entered into an agreement with Spectrum Pharmaceuticals, Inc. to form a 50/50 owned joint venture to commercialize and develop Zevalin in the United States. We will receive an initial payment of \$7.5 million at the closing and \$7.5 million in early January 2009, in addition to up to \$15 million product sales milestone payments upon achievement of certain revenue targets. The closing of the joint venture transaction is subject to the satisfaction of certain customary closing conditions, including the consent of Biogen to convey the Zevalin-related assets. We expect the transaction to close in December 2008. However, we will need to continue to raise additional capital to fund our operations in 2009 and beyond. See Risk Factors.

In addition, our auditors, Stonefield Josephson, have expressed substantial doubt about our ability to continue to operate as a going concern in their audit opinion dated March 26, 2008 in connection with our audited financial statements for the year ended December 31, 2007. If we are not successful in raising substantial additional financing and/or capital, we will have insufficient funds to continue operations past the end of the first quarter of 2009.

Table of Contents

Recent Financings

In October 2008, we sold to a single institutional investor (the same investor in the current offering) \$24.7 million in principal amount of our 9.66% senior convertible notes due October 2011; of these gross proceeds, we used \$10 million as a portion of the approximately \$18.2 million repurchase price for approximately \$18.2 million principal amount of our 15% convertible senior notes and related warrants to purchase common stock issued in June 2008 to such investor. The funds released to us from the escrow account established to pay the make-whole and interest payments on the 15% convertible senior notes were used to pay the remaining approximately \$8.2 million of the repurchase price. In addition, approximately \$7.2 million was placed in an escrow account to be used to make interest payments and make-whole payments on the 9.66% senior convertible notes for 12 months following the close of that offering.

Table of Contents

Exchange Listing Matters

Our current market capitalization does not comply with the minimum market capitalization requires for companies listed on The NASDAQ Global Market. In November 2008, we had a hearing before a NASDAQ Listing Qualifications Panel (the Panel) and presented a plan for regaining compliance with the NASDAQ Marketplace Rules, which requires a minimum market value of listed securities of \$50 million or, if the Panel approves a transfer of our listing to The NASDAQ Capital Market, a minimum market value of listed securities of \$35 million. Our common stock will continue to be listed on The NASDAQ Stock Market pending a decision from the Panel and during any extension period which may be granted by the Panel. The Panel normally makes a decision on the above matters within a period ranging from 30-45 days from the meeting. In the event our common stock is delisted from the NASDAQ markets, we currently expect that we would apply to the have the common stock listed on the OTC Bulletin Board or Pink Sheets. We do not know what impact delisting from the NASDAQ markets may have on our listing with Borsa Italiana. In the event our common stock is delisted, remaining holders of our preferred stock may elect to have their shares redeemed by us at 130% of the original purchase price. As noted above, we are currently exploring alternatives to restructure our preferred stock.

Other Information

We were incorporated in Washington in 1991. Our principal executive offices are located at 501 Elliott Avenue West, Suite 400, Seattle, Washington 98119. Our telephone number is (206) 282-7100. We make available on our website important information such as press releases, presentations from investor and medical conferences, as well as other information about our company. The address for our website is <http://www.celltherapeutics.com> and the address for the investor relations page of our website is <http://www.celltherapeutics.com/investors>. The contents of our website are not part of this prospectus, and the reference to our website does not constitute incorporation by reference into this prospectus of the information contained at that site.

Table of Contents**The Offering**

The following is a brief summary of some of the terms of the offering and is qualified in its entirety by reference to the more detailed information appearing elsewhere in this prospectus supplement and the accompanying prospectus. For a more complete description of the terms of our notes, see the Description of Notes section in this prospectus supplement. For a more complete description of our common stock, see the Description of Capital Stock section in the accompanying prospectus.

Securities we are offering:

Notes	\$32,651,321 aggregate principal amount of 10% convertible senior unsecured notes.
C Notes	Up to \$6,000,000 aggregate principal amount of Series C 10% convertible senior unsecured notes issuable pursuant to an issuer put option.
Issuer Put Option	We may commence a tender offer for our outstanding convertible notes. If we do so and we receive tenders (which are not withdrawn) for at least \$62 million of our outstanding convertible notes, we have the option to require the investor to purchase \$3 million principal amount of C Notes; and if we receive tenders (which are not withdrawn) for at least \$93 million of our outstanding convertible notes we have the option to require the investor to purchase \$6 million principal amount of C Notes.
Description of Notes and C Notes	
Maturity	The principal of the Notes will be due and payable on December 5, 2011. The principal of the C Notes will be due and payable on the third anniversary of the issuance of the C Notes.
Interest Rate and Payment Dates	10% per annum, payable May 15 and November 15 of each year, commencing May 15, 2009.
Ranking of Notes	The notes will be pari passu in right of payment with all our existing and future senior unsecured debt.
Voluntary Conversion of Notes	The notes are convertible into shares of our common stock at any time upon the election of the holder. Each \$1,000 principal amount of the notes is initially convertible into approximately 7,299.27 shares of common stock. The conversion ratio is subject to adjustments upon the occurrence of certain specified corporate events.
Automatic Conversion of Notes	After December 5, 2009, the Notes will be automatically converted into shares of our common stock if our common stock trades for 20 days within any 30 day trading period at a price equal to or greater than \$0.274 per share. After the first anniversary of the issuance of the C Notes, the C Notes will be automatically converted into shares of our common stock if our common stock trades for 20 days within any 30 day trading period at a price equal to or greater than \$0.274 per share.
Limitations on Conversion	We cannot effect a conversion of the notes, whether voluntary or automatic, and the holder may not request a conversion of the notes if such conversion would result in the holder and its affiliates owning more than 9.99% of our outstanding common stock after conversion.

Table of Contents

Make Whole Payment	In the event that the notes are converted, we will pay to the holder of the converted notes an amount equal to \$300 per \$1,000 principal amount of notes converted, less any interest payments made with respect to the converted notes
Escrow	An amount of the proceeds of the offering equal to the maximum potential Make-Whole Payment will be deposited with U.S. Bank National Association as paying agent to be held for a period of 12 months from the applicable closing. Amounts in the escrow account will be released to pay Make-Whole Payments with respect to notes converted during the escrow period. At the end of 12 months from the applicable closing, the amount remaining in the escrow account will be released to us.
Redemption of Notes	The notes will not be redeemable prior to maturity. In addition, we cannot force prepayment of the notes prior to maturity.
Use of proceeds after expenses	We intend to use the proceeds from this offering for general corporate purposes including, without limitation, paying interest on our outstanding debt, paying dividends on our preferred stock, research and development, preclinical and clinical trials, the preparation and filing of new drug applications, sales and marketing associated with Zevalin and general working capital, and to repurchase our currently outstanding 15% senior convertible notes, Series B 18.33% senior convertible notes and 9.66% senior convertible notes. See Use of Proceeds in this prospectus supplement.
Common Stock Ownership	Until such time that only \$1.635 million principal amount of the Notes remain outstanding, the investor is required to hold, in the form of outstanding common stock, a long position constituting at least 9% of the total outstanding shares of our common stock.
Market for the notes and common stock	Our common stock is currently quoted on The NASDAQ Global Market and on the MTA (formerly the MTAX) in Italy under the symbol CTIC. However, there is no established public trading market for the offered notes, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the notes on any securities exchange.

Table of Contents

RISK FACTORS

You should carefully consider the risks described below and other information in this prospectus supplement and in the documents incorporated by reference into this prospectus supplement before deciding to invest in 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. If any of the following risks actually occur, they could materially adversely affect our business, financial condition, operating results or prospects. In that case, the trading price of our securities could decline.

Factors Affecting Our Operating Results and Financial Condition

We expect to continue to incur net losses, and we might never achieve profitability.

We were incorporated in 1991 and have incurred a net operating loss every year. As of September 30, 2008, we had an accumulated deficit of approximately \$1.3 billion. We are pursuing regulatory approval for OPAXIO, pixantrone and brostallicin and plan to seek regulatory approval for the expansion of approved uses of Zevalin. We will need to conduct research, development, testing and regulatory compliance activities and undertake manufacturing and drug supply activities, expenses which, together with projected general and administrative expenses, will result in operating losses for the foreseeable future. We may never become profitable, even if we are able to commercialize products currently in development or otherwise.

Our debt and operating expenses exceed our net revenues.

We have a substantial amount of debt outstanding, and our annual interest expense with respect to our debt is significant. We have a single drug we are marketing, Zevalin, and the net proceeds of sales of this drug are not sufficient to pay our debt and operating expenses on a current basis. We do not currently project that net revenues from sales of any of our products will be sufficient to cover our existing debt and operating expenses within the next twelve months. We need to raise capital to continue to fund our operations as our current cash resources, including proceeds from this offering, would not fund us through the end of the first quarter of 2009. Unless we raise substantial additional capital, we will not be able to pay all of our operating expenses or repay our debt or the interest, liquidated damages or other payments that may become due with respect to our debt.

We need to raise additional funds and expect that we will need to continue to raise funds in the future, and funds may not be available on acceptable terms, or at all.

We have substantial operating expenses associated with the development of our product candidates and as of September 30, 2008 we had cash and cash equivalents, securities available-for-sale and interest receivable of approximately \$11.7 million, and total current liabilities of approximately \$39.7 million. We also have a substantial amount of debt outstanding: as of September 30, 2008, we had an aggregate principal balance of approximately \$169.5 million in convertible notes, which does not take into account \$24.7 million principal amount of 9.66% convertible senior notes issued in October 2008 offset by conversions of \$15.7 million of these notes, the repurchase of \$18.2 million of our 15% notes and \$14.2 million in conversion of our 15.5% notes. We also have an additional \$44.5 million aggregate exercise price under our B unit warrant, however, no exercise of that amount may be made unless both the purchase of the B unit warrant and the Company agree to the exercise. We have also implemented an ongoing equity line of credit that provides for the sale of up to an aggregate of \$12.0 million (or 19.9% of our outstanding common stock on the date the agreement was executed, if sooner) which provides for multiple closings based on the trading volume of our common stock on the MTA and which may be suspended by us from time to time. As of September 2, 2008, we have received gross proceeds of approximately \$4.0 million under that equity line of credit. However, based on the current price of our common stock, we do not currently intend to utilize this line of credit in the near future. In November 2008 we entered into an agreement with Spectrum Pharmaceuticals, Inc. to form a 50/50 owned joint venture to commercialize and develop Zevalin in the United States. We will receive an initial payment of \$7.5 million at closing and \$7.5 million in early January 2009, in addition to up to \$15 million product sales milestone payments upon achievement of certain revenue targets. The closing of the joint venture transaction is subject to the satisfaction of certain customary closing conditions, including the consent of Biogen to convey the Zevalin-related assets. We expect the transaction to close in December 2008. We expect that our existing cash and cash equivalents, securities available-for-sale and interest receivable, including proceeds received from this offering and our offerings to date, will not provide sufficient working capital to fund our presently anticipated operations through the end of the first quarter of 2009, and we therefore need to raise additional capital.

We may seek to raise such capital through public or private equity financings, partnerships, joint ventures, dispositions of assets, debt financings or restructurings, preferred stock restructurings bank borrowings or other sources. However, additional funding may not be available on favorable terms or at all. 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 OPAXIO, pixantrone, brostallicin, expanded uses of Zevalin and other products

we may be developing. To obtain additional funding, we may need to enter into arrangements that require us to relinquish rights to certain

S-9

Table of Contents

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 U.S., which may increase our costs and adversely affect our ability to obtain financing. To the extent that additional capital is raised through the sale of equity, or securities convertible into equity, shareholders may experience dilution of their proportionate ownership of us.

Our common stock is listed on The NASDAQ Global Market and we may not be able to maintain that listing, which may make it more difficult for investors to sell shares of our common stock.

Our common stock is currently listed on The NASDAQ Global Market. The NASDAQ Global Market has several quantitative and qualitative requirements companies must comply with to maintain this listing, including a \$1.00 minimum bid price per share and \$50 million minimum value of listed securities. On April 16, 2008, we received notice from The NASDAQ Stock Market LLC ("NASDAQ") that our common stock had a closing bid price below \$1.00 for at least 30 consecutive business days and that, therefore, we were not in compliance with the listing standards of The NASDAQ Global Market. Pursuant to the NASDAQ Marketplace rules, we were granted a period of 180 calendar days from the date of notice, or until October 13, 2008, to regain compliance by again meeting the \$1.00 minimum bid price for ten consecutive business days. We effected a 1-for-10 reverse stock split on August 31, 2008, and on September 23, 2008 we received a letter from NASDAQ stating that we had regained compliance with the \$1.00 minimum bid price requirement. However, our stock price is currently below \$1.00 and there can be no assurance that we will be able to maintain compliance with the bid price requirement. Notwithstanding, on October 16, 2008, NASDAQ suspended the bid price requirement for all listed companies through January 16, 2009.

In addition, we received notice of deficiency from NASDAQ on September 5, 2008 because the market value of our listed securities had fallen below the \$50 million minimum requirement for 10 consecutive business days. Accordingly, pursuant to the NASDAQ Marketplace Rules, we were granted a period of 30 calendar days to regain compliance with the market value of listed securities requirement. On October 7, 2008 we received a letter from NASDAQ stating that because we failed to regain compliance with the \$50 million minimum value of listed securities requirement our common stock would be subject to delisting unless we requested a hearing before a NASDAQ Listing Qualifications Panel (the "Panel"). In November 2008 we had a hearing before the Panel and presented a plan for regaining compliance with the NASDAQ Marketplace Rules. The Company's common stock will continue to be listed on The NASDAQ Stock Market pending a decision from the Panel and during any extension period that may be granted by the Panel. The Panel normally makes a decision on the above matters within a period ranging from 30 to 45 days from the hearing. There can be no assurance that the Panel will grant our request for continued listing on The NASDAQ Stock Market.

Additionally, we do not currently meet the requirements to transfer our securities listing to The NASDAQ Capital Market which requires, among other things, a \$35 million minimum value of listed securities. The level of trading activity of our common stock may decline if it is no longer listed on The NASDAQ Global Market or The NASDAQ Capital Market. Furthermore, our failure to maintain a listing on The NASDAQ Stock Market constitutes a triggering event for the redemption of our outstanding preferred stock. As such, if our common stock ceases to be listed for trading on The NASDAQ Stock 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 buy or sell shares of our common stock, and/or cause a highly damaging acceleration of obligations. In addition, if we are not listed on The NASDAQ Stock Market and/or if our public float remains below \$75 million, we may 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 might have a material adverse effect on our ability to raise the capital we need.

The global financial crisis may have an impact on our business and financial condition in ways that we currently cannot predict, and may further limit our ability to raise additional funds.

The continued credit crisis and related turmoil in the global financial system has had and may continue to have an impact on our business and our financial condition. We may face significant challenges if conditions in the financial markets do not improve or continue to worsen. In particular, our ability to access the capital markets and raise funds required for our operations may be severely restricted at a time when we would like, or need, to do so, which could have an adverse effect on our ability to meet our current and future funding requirements and on our flexibility to react to changing economic and business conditions.

We have received a going concern opinion on our consolidated financial statements.

Due to our need to raise additional financing to fund our operations and satisfy obligations as they become due, our independent registered public accounting firm has included an explanatory paragraph in their report on our December 31, 2007 consolidated financial statements regarding their substantial doubt as to our ability to continue as a going concern. This may have a negative impact on the trading price of our common stock and we may have a more difficult time obtaining necessary financing.

Table of Contents

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

Our stock is traded on the MTA stock market in Milan, Italy and we are required to also comply with the rules and regulations of the Commissione Nazionale per le Società e la Borsa, or 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 agencies regulate companies listed on Italy's public markets. Conducting our operations in a manner that complies with all 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 applicable regulatory regimes. 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 in any twelve-month period that exceeds 10% of the number of shares of common stock outstanding at the beginning of that period. We have attempted to publish a listing prospectus in Italy to cover our general offerings for the past year. We filed our initial listing prospectus with CONSOB in April 2007 and worked with CONSOB to meet their requirements to publish that listing prospectus for the remainder of 2007. We were finally able to publish a listing prospectus in January 2008, however, that listing prospectus was limited to shares to be issued to Société Générale under the Step-Up Equity Financing Agreement we entered into with Société Générale in 2006. We continue to pursue the possibility of publishing a listing prospectus to cover other financing efforts under Italian law, however, at the present time we have not been successful in getting approval from the Italian regulators for such a listing prospectus. As a result, we are required to raise money using alternative forms of securities; for example, we use convertible preferred stock and convertible debt in lieu of common stock as convertible preferred stock and convertible debt are not subject to the 10% limitation imposed by Italian law.

We are subject to additional legal duties, additional operational challenges and additional political and economic risks related to our operations in Italy.

A portion of our business is based in Italy. We are subject to duties and risks arising from doing business in Italy, such as:

Italian employment law, including collective bargaining agreements negotiated at the national level and over which we have no control;

European data protection regulations, under which we will be unable to send private personal data, including many employment records and some clinical trial data, from our Italian offices to our U.S. offices until our U.S. offices self-certify their adherence to the safe harbor framework established by the U.S. Department of Commerce in consultation with the European Commission;

tariffs, customs, duties and other trade barriers; and

capital controls, terrorism and other political risks.

We are also subject to the following operational challenges, among others, as a result of having a portion of our business and operations based in Italy:

effectively pursuing the clinical development and regulatory approvals of all product candidates;

successfully commercializing products under development;

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

coordinating research and development activities to enhance introduction of new products and technologies;

coalescing the Italian business culture with our own and maintaining employee morale; and

maintaining appropriate uniform standards, controls, procedures and policies relating to financial reporting and employment related matters, and the conduct of development activities that comply with both U.S. and Italian laws and regulations.

We may not succeed in addressing these challenges, risks and duties, any of which may be exacerbated by the geographic separation of our operations in the United States and in Italy. These risks related to doing business in Italy could harm the results of our operations.

S-11

Table of Contents

Our operations in Italy make us subject to increased risk regarding currency exchange rate fluctuations.

As a result of operations in Italy, we are exposed to risks associated with foreign currency transactions insofar as we use U.S. dollars to make contract payments denominated in euros or vice versa. As the net positions of our foreign currency transactions might fluctuate, our earnings might be negatively affected. In addition, we are exposed to risks associated with the translation of euro-denominated financial results and accounts into U.S. dollars. Our reporting currency will remain as the U.S. dollar; however, a portion of our consolidated financial obligations will arise in euros. In addition, the carrying value of some of our assets and liabilities will be affected by fluctuations in the value of the U.S. dollar as compared to the euro. Changes in the value of the U.S. dollar as compared to the euro might have an adverse effect on our reported results of operations and financial condition.

In 2006, we identified material weaknesses in our internal control over financial reporting and we received an adverse opinion on internal control over financial reporting from our independent registered public accounting firm in connection with their annual internal control attestation process for fiscal year 2006.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis. We identified that as of December 31, 2006 we had material weaknesses in our European branch relative to the effectiveness of our internal control over financial reporting which were remedied during 2007.

The existence of a material weakness is an indication that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. If we fail to maintain an effective system of internal controls, we may not be able to report our financial results accurately, which may deprive management of important financial information needed to manage the Company effectively, may cause investors to lose confidence in our reported financial information and may have an adverse effect on the trading price of our common stock.

If we are not able to successfully integrate recent and future acquisitions, our management's attention could be diverted, and efforts to integrate future acquisitions could consume significant resources.

The acquisitions of SM and of Zevalin, or any other future acquisition that we may undertake, involve numerous risks related to the integration of the acquired asset or entity into the Company after the acquisition is completed. These risks include the following:

difficulties in integrating the operations, technologies and products of the acquired companies;

difficulties in implementing internal controls over financial reporting;

diversion of management's attention from normal daily operations of the business;

inability to maintain the key business relationships and the reputations of acquired businesses;

entry into markets in which we have limited or no prior experience and in which competitors have stronger market positions;

dependence on unfamiliar affiliates and partners;

reduction in the development or commercialization of existing products due to increased focus on the development or commercialization of the acquired products;

responsibility for the liabilities of acquired businesses;

inability to maintain our internal standards, controls, procedures and policies at the acquired companies or businesses; and

potential loss of key employees of the acquired companies.

In addition, if we finance or otherwise complete acquisitions by issuing equity or convertible debt securities, our existing shareholders may be diluted.

If we are unable to expand label usage of Zevalin, or maintain or obtain improved reimbursement rates, we may not recognize the full value of the asset and there may be adverse effects on our expected financial and operating results.

We intend to seek expansion of the approved uses, or labeled uses, of Zevalin in the United States. However, we may be unable to obtain approval for such label expansion in full or in part. If we are not able to obtain approval for expansion of the labeled uses for Zevalin, or if we are otherwise unable to fulfill our marketing, sales and distribution plans for Zevalin, we may not recognize the full anticipated value of Zevalin. If we do not expand the approved uses of Zevalin, we may have insufficient net revenues to finance our

S-12

Table of Contents

current levels of debt and operations unless we are able to market and sell other products. We recently entered into an agreement with Bayer Schering for access to data from their first line indolent trial, or FIT trial. Although we submitted an sBLA based on the FIT trial data in September of 2008, there can be no guarantee that such data will be adequate or suitable for approval of the sBLA by the FDA.

In 2007, the Centers for Medicare and Medicaid Services, or CMS, implemented new outpatient reimbursement rates to be put in place in 2008 for radiopharmaceuticals, including Zevalin. These new rates are below the acquisition costs of Zevalin. Congress passed legislation in late 2007 to delay the implementation of those new rates and stabilize reimbursement rates for the first six months of 2008 and subsequently passed legislation in July 2008 to extend that delay an additional 18 months, to January 1, 2010, with the intention of giving drug manufacturers and CMS more time to reach an agreement that more adequately reflects hospitals' costs associated with the therapy. However, there can be no guarantee that CMS will agree to a rate or methodology that provides an acceptable reimbursement on radiopharmaceuticals such as Zevalin. In the event that CMS does not agree to a reimbursement rate that is adequate to cover the acquisition costs of Zevalin, we may face immediate and significant difficulty in getting care providers to use Zevalin, which would have an adverse impact on our expected financial and operating results.

We may face difficulties in achieving broader market acceptance of Zevalin if we do not invest significantly in our sales and marketing infrastructure.

We currently market Zevalin using a direct sales force that we recently hired in connection with our acquisition of Zevalin from Biogen. U.S. sales of Zevalin by its prior owner either declined or remained flat over the past several years and we expect such sales to remain flat in 2008. We believe that our sales and marketing strategy, in conjunction with our efforts to obtain approval by the FDA for expanded uses of Zevalin, will increase sales of and revenue from Zevalin over the next few years. Our sales and marketing strategy intends to take advantage of the recent lowering of barriers to adoption, including greater economic incentives and practice efficiencies for Zevalin compared to rituximab, the recent adoption of positron emission tomography in community oncology practices, which facilitates use of Zevalin, and implementation of a Zevalin community access program, which targets facilitation of on-site ordering, receipt and administration of Zevalin by the 100 largest community oncology group practices. However, implementation of the sales and marketing strategy will require an investment of resources and may not increase Zevalin revenues according to our forecasts. In addition, creation and expansion of an effective sales force may take time, and competition for sales and marketing personnel in our industry is intense. Therefore, we will need to effectively manage and expand our sales force, hire individuals with additional technical expertise, expand our distribution capacity or otherwise grow our sales and marketing infrastructure in order to achieve broader market acceptance and additional sales revenue from Zevalin. In addition to the factors just listed, if we do not effectively manage our sales force, our financial condition and operating results may suffer.

We may not realize any royalties, milestone payments or other benefits under the License and Co-Development agreement entered into with Novartis Pharmaceutical Company Ltd.

We have entered into a License and Co-Development agreement related to OPAXIO and pixantrone with Novartis Pharmaceutical Company Ltd., or Novartis, pursuant to which Novartis received an exclusive worldwide license for the development and commercialization of OPAXIO and an option to enter into an exclusive worldwide license to develop and commercialize pixantrone. We will not receive any royalty or milestone payments under this agreement unless Novartis elects to participate in the development and commercialization of OPAXIO or if Novartis exercises its option related to pixantrone and we are able to reach a definitive agreement. Novartis is under no obligation to make such election or exercise such right and may never do so. In addition, even if Novartis exercises such rights, any royalties and milestone payments we may be eligible to receive from Novartis are subject to the receipt of the necessary regulatory approvals and the attainment of certain sales levels. We may never receive the necessary regulatory approvals and our products may not reach the necessary sales levels. Novartis has the right under the agreement in its sole discretion to terminate such agreement at any time on written notice to us.

We may be delayed, limited or precluded from obtaining regulatory approval of OPAXIO given that our three STELLAR phase III clinical trials for the treatment of non-small cell lung cancer did not meet their primary endpoints.

There are no guarantees that we will obtain regulatory approval to manufacture, market, or expand the marketing of any of our drug candidates. Obtaining regulatory approval to market drugs to treat cancer is expensive, difficult and risky. Preclinical and clinical data can be interpreted in different ways, which could delay, limit or preclude regulatory approval. Negative or inconclusive results or adverse medical events during a clinical trial could delay, limit or prevent regulatory approval.

Our future financial success depends in large part on obtaining regulatory approval of OPAXIO. In March 2005, we announced the results of STELLAR 3, and in May 2005, we announced the results of STELLAR 2 and 4, our phase III clinical trials of OPAXIO in non-small cell lung cancer. All three trials failed to achieve their primary endpoints of superior overall survival compared to current marketed agents for treating NSCLC.

Table of Contents

In December 2006, we closed the PIONEER clinical trial and in 2007, we initiated a new study in the United States, PGT307, which focuses on the primary efficacy endpoint of survival in women with NSCLC and pre-menopausal estrogen levels. We have decided not to initiate an additional study, the PGT306 trial, for which we have submitted a special protocol assessment, or SPA, to conserve limited financial resources. We also feel that compelling evidence from one trial, the PGT307 trial, along with supporting evidence from earlier clinical trials, may be adequate to submit an NDA for OPAXIO even though the FDA has established a requirement that two adequate and well-controlled pivotal studies demonstrating a statistically significant improvement in overall survival will be required for approval of OPAXIO in the NSCLC setting. We may not receive compelling evidence or any positive results from the PGT307 trial, which would preclude our planned submission of an NDA to the FDA, and would preclude us from marketing OPAXIO in the United States.

Based on discussions with the European Medicines Agency, or EMEA, Scientific Advice Working Party, we submitted a Marketing Authorization Application, or MAA for OPAXIO in Europe on March 4, 2008 based on results of the STELLAR trials. The MAA was accepted for review by the EMEA in April 2008, however a successful regulatory outcome from the EMEA is not assured as the EMEA's final opinion cannot be predicted until they have had the opportunity to complete a thorough review of the clinical data presented in the MAA.

We are subject to extensive government regulation.

We are subject to rigorous and extensive regulation by the FDA in the United States and by comparable agencies in other states and countries. Failure to comply with regulatory requirements could result in various adverse consequences, including possible delay in approval or refusal to approve a product, withdrawal of approved products from the market, product seizures, injunctions, regulatory restrictions on our business and sales activities, monetary penalties, or criminal prosecution.

Our products may not be marketed in the United States until they have been approved by the FDA and may not be marketed in other countries until they have received approval from the appropriate agencies. With the exception of Zevalin, none of our current products have received approval. Obtaining regulatory approval requires substantial time, effort and financial resources, and we may not be able to obtain approval of any of our products on a timely basis, or at all. If our products are not approved quickly enough to provide net revenues to defray our debt and operating expenses, our business and financial condition will be adversely affected.

Our marketed products, such as Zevalin, are and will be subject to extensive regulations regarding their promotion and commercialization. For instance, we are subject to numerous regulations and statutes regulating the manner of selling and obtaining reimbursement for our products that receive marketing approval. For example, federal statutes generally prohibit providing certain discounts and payments to physicians to encourage them to prescribe our product. Violations of such regulations or statutes may result in treble damages, criminal or civil penalties, fines or exclusion of CTI or its employees from participation in federal and state health care programs. Although we have policies prohibiting violations of relevant regulations and statutes, unauthorized actions of our employees or consultants, or unfavorable interpretations of such regulations or statutes may result in third parties or regulatory agencies bringing legal proceedings or enforcement actions against us. Because our sales force is relatively new, we may have a greater risk of such violations from lack of adequate training or experience. The expense to retain and pay legal counsel and consultants to defend against any such proceedings would be substantial, and together with the diversion of management's time and attention to assist in any such defense, may negatively affect our financial condition and results of operations.

In addition, both before and after approval, our contract manufacturers and our products are subject to numerous regulatory requirements covering, among other things, testing, manufacturing, quality control, labeling, advertising, promotion, distribution and export. Manufacturing processes must conform to current Good Manufacturing Practice, or cGMPs. The FDA and other regulatory authorities periodically inspect manufacturing facilities to assess compliance with cGMPs. Accordingly, manufacturers must continue to expend time, money and effort to maintain compliance. Failure to comply with FDA, EMEA or other applicable regulations may cause us to curtail or stop the manufacture of such products until we obtain regulatory compliance.

The marketing and promotion of pharmaceuticals is also heavily regulated, particularly with regard to prohibitions on the promotion of products for off-label uses. In April 2007, we paid a civil penalty of \$10.5 million and entered into a settlement agreement with the United States Attorney's Office, or USAO, for the Western District of Washington arising out of their investigation into certain of our prior marketing practices relating to TRISENOX, which was divested to Cephalon Inc. in July 2005. As part of that settlement agreement, and in connection with the acquisition of Zevalin, a commercially approved drug, we also entered into a corporate integrity agreement with the HHS-OIG that requires us to establish a compliance committee and compliance program and adopt a formal code of conduct. The USAO settlement does not address separate claims brought against the Company by the private party plaintiff in this matter, which generally relate to attorney's fees and employment related claims. In 2007, the United States District Court dismissed the private party plaintiff's employment claims as barred by applicable statutes of limitation, however, in July 2008 the private party plaintiff filed a petition seeking approximately \$1.2 million in attorneys' fees and costs. While we intend to oppose this petition, there can be no guarantee that we will partially or wholly prevail in such opposition to the petition for fees.

Table of Contents

We rely on third parties for the manufacture and supply of Zevalin and for the manufacture and supply of radioactive isotopes used in the administration of Zevalin.

We currently rely on Biogen to manufacture and supply Zevalin to us through a long-term manufacturing agreement, and Biogen may, in turn, rely on other third-party manufacturers to fill its requirements for manufacturing Zevalin. If Biogen or any third party contract manufacturing organization, or CMO, or contract service provider, or CSP, upon which it relies does not produce or test and release Zevalin in sufficient quantities and on a timely and cost-effective basis, or if Biogen or any third party CMO or CSP does not obtain and maintain all required manufacturing approvals, our business could be harmed. In addition, we rely on MDS (Canada) for the manufacture and supply of Yttrium-90, a radioactive isotope used in the administration of Zevalin therapy. MDS (Canada) is currently our sole source of Yttrium-90, which must be manufactured and shipped in such a way as to ensure the appropriate potency of the isotope based on its radioactive half-life at the time of administration to the patient is valid. If MDS (Canada) were to have problems with the manufacture or supply of Yttrium-90, our business could be materially impacted, and we may not be able to find an additional supplier of the isotope on acceptable terms or at all. We also rely on Mallinckrodt and GE for the manufacture and supply of Indium-111, a radioactive isotope used in the administration of Zevalin diagnostic for clinical purposes. Mallinckrodt and GE are currently our two qualified sources of Indium-111, which must be manufactured and shipped in such a way as to ensure the appropriate potency of the isotope based on its radioactive half-life at the time of administration of the diagnostic dose to the patient. If both companies were to have problems with the manufacture or supply of Indium-111, our business could be materially impacted, and we may not be able to find an additional supplier of the isotope on acceptable terms or at all.

We face direct and intense competition from our competitors in the biotechnology and pharmaceutical industries, and we may not compete successfully against them.

Competition in the oncology market is intense and is accentuated by the rapid pace of technological development. We anticipate that we will face increased competition in the future as new companies enter the market. Our competitors in the United States and elsewhere are numerous and include, among others, major multinational pharmaceutical companies, specialized biotechnology companies and universities and other research institutions. Specifically:

Zevalin currently competes with Bexxar[®], which is marketed by GlaxoSmithKline, and any rituximab-containing chemotherapy regimen. Rituximab is marketed in the U.S. by Genentech and Biogen Idec. In addition, other companies such as Cephalon, Eli Lilly, Genta, Genmab, Favrilite, and Genitope are developing products which could compete with Zevalin.

If we are successful in bringing OPAXIO to market, we will face direct competition from oncology-focused multinational corporations. OPAXIO will compete with other taxanes. Many oncology-focused multinational corporations currently market or are developing taxanes, epothilones, and other cytotoxic agents, which inhibit cancer cells by a mechanism similar to taxanes, or similar products including, among others, Bristol-Myers Squibb Co. and others, which markets paclitaxel and generic forms of paclitaxel; Aventis, which markets docetaxel; Genentech and OSI Pharmaceuticals, which markets Tarceva ; Genentech, which markets Avastin , Eli Lilly, which markets Alimta[®], and American Pharmaceutical Partners, which markets Abraxane . In addition, other companies such as NeoPharm Inc. and Telik, Inc. are also developing products which could compete with OPAXIO.

Because pixantrone is intended to provide less toxic treatment to patients who have failed standard chemotherapy treatment, if pixantrone is brought to market, it is not expected to compete directly with many existing chemotherapies. However, pixantrone will face competition from currently marketed anthracyclines, such as mitoxantrone (Novantrone[®]), and new anti-cancer drugs with reduced toxicity that may be developed and marketed.

If we are successful in bringing brostallicin to market, we will face direct competition from other minor groove binding agents including Yondelis[®], which is currently developed by PharmaMar and has received Authorization of Commercialization from the European Commission for soft tissue sarcoma.

Many of our competitors, either alone or together with their collaborators and, in particular, the multinational pharmaceutical companies, have substantially greater financial resources and development and marketing teams than us. In addition, many of our competitors, either alone or together with their collaborators, have significantly greater experience than we do in developing, manufacturing and marketing products. As a result, these companies' products might come to market sooner or might prove to be more effective, less expensive, have fewer side effects or be easier to administer than ours. In any such case, sales of our products or eventual products would likely suffer and we might never recoup the

significant investments we are making to develop these product candidates.

S-15

Table of Contents

Uncertainty regarding third-party reimbursement and healthcare cost containment initiatives may limit our returns.

The ongoing efforts of governmental and third-party payers to contain or reduce the cost of healthcare may affect our ability to commercialize our products successfully. Governmental and other third-party payers continue to attempt to contain healthcare costs by:

challenging the prices charged for health care products and services,

limiting both coverage and the amount of reimbursement for new therapeutic products,

denying or limiting coverage for products that are approved by the FDA but are considered experimental or investigational by third-party payers,

refusing in some cases to provide coverage when an approved product is used for disease indications in a way that has not received FDA marketing approval, and

denying coverage altogether.

The trend toward managed healthcare in the United States, the growth of organizations such as health maintenance organizations, and legislative proposals to reform healthcare and government insurance programs could significantly influence the purchase of healthcare services and products, resulting in lower prices and reducing demand for our products. In addition, in almost all European markets, pricing and choice of prescription pharmaceuticals are subject to governmental control. Therefore, the price of our products and their reimbursement in Europe will be determined by national regulatory authorities.

Even if we succeed in bringing any of our proposed products to the market, they may not be considered cost-effective and third-party reimbursement might not be available or sufficient. If adequate third-party coverage is not available, we may not be able to maintain price levels sufficient to realize an appropriate return on our investment in research and product development. In addition, legislation and regulations affecting the pricing of pharmaceuticals may change in ways adverse to us before or after any of our proposed products are approved for marketing.

Even if our drug candidates are successful in clinical trials, we may not be able to successfully commercialize them.

Since our inception in 1991, we have dedicated substantially all of our resources to the research and development of our technologies and related compounds. All of our compounds, with the exception of Zevalin, currently are in research or development, and have not received marketing approval.

Prior to commercialization, each product candidate requires significant research, development and preclinical testing and extensive clinical investigation before submission of any regulatory application for marketing approval. The development of anti-cancer drugs, including those we are currently developing, is unpredictable and subject to numerous risks. Potential products that appear to be promising at early stages of development may not reach the market for a number of reasons including that they may:

be found ineffective or cause harmful side effects during preclinical testing or clinical trials,

fail to receive necessary regulatory approvals,

be difficult to manufacture on a scale necessary for commercialization,

be uneconomical to produce,

fail to achieve market acceptance, or

be precluded from commercialization by proprietary rights of third parties.

The occurrence of any of these events could adversely affect the commercialization of our products. Products, if introduced, may not be successfully marketed and/or may not achieve customer acceptance. If we fail to commercialize products or if our future products do not achieve significant market acceptance, we will not likely generate significant revenues or become profitable.

S-16

Table of Contents

The intellectual property and assets related to Zevalin are subject to a security agreement with Biogen; if we were to default on certain payments or reimbursement owed to Biogen or certain third parties, those assets would be subject to foreclosure by Biogen and we could lose our ability to continue development, sales and marketing activities with respect to Zevalin.

On December 21, 2007, in connection with our purchase of Zevalin, we entered into a Security Agreement with Biogen granting a first priority security interest to Biogen in all of our right, title and interest (a) in and to the assets related to Zevalin that we purchased from Biogen, together with any other assets or rights related to any of such assets or otherwise used in the development, manufacture or commercialization of Zevalin, and (b) under certain license, sublicense and supply agreements entered into in connection with our purchase of Zevalin. In the event we were to default on certain of our obligations under the Security Agreement, the Asset Purchase Agreement pursuant to which we continue to owe royalties and milestone payments to Biogen, or the related sublicense and service agreements, or in the event we were to make an application for, or consent to, the appointment of a receiver, trustee or liquidator of all or a substantial portion of our assets, transfer our assets as part of a general assignment or other arrangement for the benefit of creditors, become insolvent, file a voluntary or involuntary petition under the provisions of the United States Bankruptcy Code, or in the event of an attachment or execution upon, or seizure of, all or substantially all of our assets, Biogen may take any action with respect to the collateral under the Security Agreement that it deems necessary or advisable to accomplish the purposes of the Security Agreement. The Security Agreement will remain in effect until all obligations secured by that agreement have been satisfied. If Biogen were to foreclose on the collateral under this Security Agreement, it would have a material adverse impact on our business.

If any of our license agreements for intellectual property underlying Zevalin, OPAXIO, pixantrone, brostallicin, or any other products are terminated, we may lose our rights to develop or market that product.

We have licensed intellectual property, including patent applications relating to intellectual property for pixantrone, brostallicin and Zevalin. We have also in-licensed the intellectual property for our drug delivery technology relating to OPAXIO that uses polymers that are linked to drugs, known as polymer-drug conjugates. Some of our product development programs depend on our ability to maintain rights under these licenses. Each licensor has the power to terminate its agreement with us if we fail to meet our obligations under these licenses. We may not be able to meet our obligations under these licenses. If we default under any license agreements, we may lose our right to market and sell any products based on the licensed technology.

If we fail to adequately protect our intellectual property, our competitive position could be harmed.

Development and protection of our intellectual property are critical to our business. If we do not adequately protect our intellectual property, competitors may be able to practice our technologies. Our success depends in part on our ability to:

obtain patent protection for our products or processes both in the United States and other countries,

protect trade secrets, and

prevent others from infringing on our proprietary rights.

When polymers are linked, or conjugated, to drugs, the results are referred to as polymer-drug conjugates. We are developing drug delivery technology that links chemotherapy to biodegradable polymers. For example, OPAXIO is paclitaxel, the active ingredient in Taxol[®], one of the world's best selling cancer drugs, linked to polyglutamate. We may not receive a patent for all of our polymer-drug conjugates and we may be challenged by the holder of a patent covering the underlying drug and/or methods for its use or manufacture.

The patent position of biopharmaceutical firms generally is highly uncertain and involves complex legal and factual questions. The U.S. Patent and Trademark Office has not established a consistent policy regarding the breadth of claims that it will allow in biotechnology patents. If it allows broad claims, the number and cost of patent interference proceedings in the United States and the risk of infringement litigation may increase. If it allows narrow claims, the risk of infringement may decrease, but the value of our rights under our patents, licenses and patent applications may also decrease. Patent applications in which we have rights may never issue as patents and the claims of any issued patents may not afford meaningful protection for our technologies or products. In addition, patents issued to us or our licensors may be challenged and subsequently narrowed, invalidated or circumvented. Litigation, interference proceedings or other governmental proceedings that we may become involved in with respect to our proprietary technologies or the proprietary technology of others could result in substantial cost to us. Patent litigation is widespread in the biotechnology industry, and any patent litigation could harm our business.

Table of Contents

Costly litigation might be necessary to protect a patent position or to determine the scope and validity of third-party proprietary rights, and we may not have the required resources to pursue any such litigation or to protect our patent rights. Any adverse outcome in litigation with respect to the infringement or validity of any patents owned by third parties could subject us to significant liabilities to third parties, require disputed rights to be licensed from third parties or require us to cease using a product or technology.

We also rely upon trade secrets, proprietary know-how and continuing technological innovation to remain competitive. Third parties may independently develop such know-how or otherwise obtain access to our technology. While we require our employees, consultants and corporate partners with access to proprietary information to enter into confidentiality agreements, these agreements may not be honored.

Our products could infringe on the intellectual property rights of others, which may cause us to engage in costly litigation and, if unsuccessful, could cause us to pay substantial damages and prohibit us from selling our products.

We attempt to monitor patent filings but have not conducted an exhaustive search for patents that may be relevant to our products and product candidates in an effort to guide the design and development of our products to avoid infringement. We may not be able to successfully challenge the validity of these patents and could have to pay substantial damages, possibly including treble damages, for past infringement and attorneys fees if it is ultimately determined that our products infringe a third party's patents. Further, we may be prohibited from selling our products before we obtain a license, which, if available at all, may require us to pay substantial royalties. Moreover, third parties may challenge the patents that have been issued or licensed to us. Even if infringement claims against us are without merit, or if we challenge the validity of issued patents, lawsuits take significant time, may be expensive and may divert management attention from other business concerns.

We may be unable to obtain a quorum for meetings of our shareholders and therefore be unable to take certain corporate actions.

Our articles require that a quorum, consisting of one-third of the outstanding shares of voting stock, be represented in person or by proxy in order to transact business at a meeting of our shareholders. A substantial majority of our common shares are held by Italian institutions and under Italian laws and regulations, it is difficult to communicate with the beneficial holders of those shares to obtain votes. In 2006, when a quorum required a majority of the outstanding shares of our voting stock be represented in person or by proxy, we scheduled two annual meetings of shareholders but were unable to obtain quorum at either meeting. Following that failure to obtain quorum, we contacted certain depository banks in Italy where significant numbers of shares of our common stock were held and asked them to cooperate by making a book entry transfer of their share positions at Monte Titoli to their U.S. correspondent bank, who would then transfer the shares to an account of the Italian bank at a U.S. broker-dealer that is an affiliate of that bank. Certain of the banks contacted agreed to make the share transfer pursuant to these arrangements as of the record date of the meeting, subject to the relevant beneficial owner taking no action to direct the voting of such shares. Under Rule 452 of the New York Stock Exchange, the U.S. broker-dealer may vote shares absent direction from the beneficial owner on certain matters, such as the uncontested election of directors, an amendment to the Company's articles of incorporation to increase authorized shares that are to be used for general corporate purposes, and the ratification of our auditors. As a result of this custody transfer, we were able to hold special meetings of the shareholders in April 2007 and January 2008 and annual meetings of the shareholders in September 2007 and June 2008. At the meeting in June 2008, our shareholders approved a proposal to reduce our quorum requirement from a majority of outstanding voting shares to one-third of outstanding voting shares. However, obtaining a quorum at future meetings even at the lower threshold will depend in part upon the willingness of the Italian depository banks to continue participating in the custody transfer arrangements, and we cannot be assured that those banks that have participated in the past will continue to participate in custody transfer arrangements in the future. We are continuing to explore other alternatives to achieve quorum for our meetings, however, we cannot be certain that we will find an alternate method if we are unable to continue to use the custody transfer arrangements. As a result, we may be unable to obtain quorum at future annual or special meetings of shareholders. If we are unable to obtain a quorum at our shareholder meetings and thus fail to get shareholder approval of corporate actions, such failure could have a materially adverse effect on the Company. In addition, brokers may only vote on those matters for which broker discretionary voting is allowed under Rule 452, and we may not be able to obtain the required number of votes to approve certain proposals that require a majority of all outstanding shares to approve the proposal due to our reliance on broker discretionary voting. Therefore it is possible that even if we are able to obtain a quorum for our meetings of the shareholders we still may not receive enough votes to approve proxy proposals presented at such meeting and, depending on the proposal in question, such failure could have a materially adverse effect on the Company.

Table of Contents

We could fail in financing efforts or be delisted from NASDAQ if we fail to receive shareholder approval when needed.

We are required under the NASDAQ Marketplace Rules to obtain shareholder approval for any issuance of additional equity securities that would comprise more than 20% of our total shares of common stock outstanding before the issuance of the securities at a discount to the greater of book or market value in an offering that is not deemed to be a public offering by NASDAQ. Funding of our operations in the future may require issuance of additional equity securities that would comprise more than 20% of our total shares of common stock outstanding, but we might not be successful in obtaining the required shareholder approval for such an issuance, particularly in light of the difficulties we have experienced in obtaining a quorum and holding shareholder meetings as outlined above.

We may be unable to obtain the raw materials necessary to produce our OPAXIO product candidate in sufficient quantity to meet demand when and if such product is approved.

We may not be able to continue to purchase the materials necessary to produce OPAXIO, including paclitaxel, in adequate volume and quality. Paclitaxel is derived from certain varieties of yew trees and the supply of paclitaxel is controlled by a limited number of companies. Paclitaxel is available and we have purchased it from several sources. We purchase the raw materials paclitaxel and polyglutamic acid from a single source on a purchase order

Table of Contents

basis. Should the paclitaxel or polyglutamic acid purchased from our sources prove to be insufficient in quantity or quality, should a supplier fail to deliver in a timely fashion or at all, or should these relationships terminate, we may not be able to obtain a sufficient supply from alternate sources on acceptable terms, or at all.

Our dependence on third-party manufacturers means that we do not always have direct control over the manufacture, testing or distribution of our products.

We do not currently have internal analytical laboratory or manufacturing facilities to allow the testing or production and distribution of drug products in compliance with cGMPs. Because we do not directly control our suppliers, these vendors may not be able to provide us with finished product when we need it.

We will be dependent upon these third parties to supply us in a timely manner with products manufactured in compliance with cGMPs or similar manufacturing standards imposed by US and/or foreign regulatory authorities where our products will be tested and/or marketed. While the FDA and other regulatory authorities maintain oversight for cGMP compliance of drug manufacturers, contract manufacturers may at times violate cGMPs. The FDA and other regulatory authorities may take action against a contract manufacturer who violates cGMPs. One of our products under development, OPAXIO, has a complex manufacturing process, which may prevent us from obtaining a sufficient supply of drug product for the clinical trials and commercial activities currently planned or underway on a timely basis, if at all. The active pharmaceutical ingredients and finished products for pixantrone and brostallicin are both manufactured by a single vendor. The drug substance for Zevalin is produced under contract by Biogen and the drug product and finished product is manufactured and distributed at a contract manufacturer and contract distribution facility.

If we do not successfully develop additional products, we may be unable to generate significant revenue or become profitable.

We divested our commercial product, TRISENOX, in July 2005 and only acquired a new commercial product, Zevalin, in December 2007. Our ability to generate significant revenues from Zevalin is dependent in part on our ability to find new markets for the product, including through gaining wider acceptance and use of the drug by physicians and through FDA approval of expanded uses for the product. There is no guarantee that we will be successful in accomplishing either of these goals. OPAXIO, pixantrone, brostallicin and label expansions for Zevalin are currently in clinical trials and may not be successful. For example, our STELLAR phase III clinical trials for OPAXIO for the treatment of non-small cell lung cancer failed to meet their primary endpoints. A number of companies in the pharmaceutical industry, including us, have suffered significant setbacks in advanced clinical trials, even after reporting promising results in earlier trials. We will need to commit significant time and resources to develop this and additional product candidates. Our product candidates will be successful only if:

our product candidates are developed to a stage that will enable us to commercialize them or sell related marketing rights to pharmaceutical companies;

we are able to commercialize product candidates in clinical development or sell the marketing rights to third parties; and

our product candidates, if developed, are approved by the regulatory authorities.

We are dependent on the successful completion of these goals in order to generate revenues. The failure to generate such revenues may preclude us from continuing our research and development of these and other product candidates.

If we are unable to enter into new licensing arrangements, our future product portfolio and potential profitability could be harmed.

One component of our business strategy is in-licensing drug compounds developed by other pharmaceutical and biotechnology companies or academic research laboratories. Substantially all of our product candidates in clinical development are in-licensed from a third party, including Zevalin, OPAXIO, pixantrone, and brostallicin.

Competition for new promising compounds and commercial products can be intense. If we are not able to identify future in-licensing opportunities and enter into future licensing arrangements on acceptable terms, our future product portfolio and potential profitability could be harmed.

Table of Contents

We may take longer to complete our clinical trials than we expect, or we may not be able to complete them at all.

Before regulatory approval for any potential product can be obtained, we must undertake extensive clinical testing on humans to demonstrate the safety and efficacy of the product. Although for planning purposes we forecast the commencement and completion of clinical trials, the actual timing of these events can vary dramatically due to a number of factors. On March 4, 2008, we submitted an MAA to the EMEA for OPAXIO. In April 2008, the EMEA accepted the MAA for review, however, we do not expect a regulatory decision on an MAA prior to the second half of 2009. In November 2008, we achieved the primary efficacy endpoint in the EXTEND trial based on a preliminary intent to treat efficacy analysis. A pre-NDA meeting with the FDA is scheduled for January 2009 and we expect to begin submission of a rolling NDA to the FDA for pixantrone shortly thereafter.

We may not obtain authorization to permit product candidates that are already in the preclinical development phase to enter the human clinical testing phase. Authorized preclinical or clinical testing may not be completed successfully within any specified time period by us, or without significant additional resources or expertise to those originally expected to be necessary. Many drugs in human clinical trials fail to demonstrate the desired safety and efficacy characteristics. Clinical testing may not show potential products to be safe and efficacious and potential products may not be approved for a specific indication. Further, the results from preclinical studies and early clinical trials may not be indicative of the results that will be obtained in later-stage clinical trials. Data obtained from clinical trials are susceptible to varying interpretations. Government regulators and our collaborators may not agree with our interpretation of our clinical trial results. In addition, we or regulatory authorities may suspend clinical trials at any time on the basis that the participants are being exposed to unacceptable health risks or for other reasons. Completion of clinical trials depends on, among other things, the number of patients available for enrollment in a particular trial, which is a function of many factors, including the number of patients with the relevant conditions, the nature of the clinical testing, the proximity of patients to clinical testing centers, the eligibility criteria for tests as well as competition with other clinical testing programs involving the same patient profile but different treatments.

We have limited experience in conducting clinical trials. We expect to continue to rely on third parties, such as contract research organizations, academic institutions and/or cooperative groups, to conduct, oversee and monitor clinical trials as well as to process the clinical results and manage test requests, which may result in delays or failure to complete trials if the third parties fail to perform or to meet the applicable standards.

If we fail to commence or complete, need to perform more or larger clinical trials than planned or experience delays in any of our present or planned clinical trials, our development costs may increase and/or our ability to commercialize our product candidates may be adversely affected. If delays or costs are significant, our financial results and our ability to commercialize our product candidates may be adversely affected.

If we fail to establish and maintain collaborations or if our partners do not perform, we may be unable to develop and commercialize our product candidates.

We have entered into collaborative arrangements with third-parties to develop and/or commercialize product candidates and are currently seeking additional collaborations. For example, we entered into an agreement with the Gynecologic Oncology Group to perform a phase III trial of OPAXIO in patients with ovarian cancer and we have entered into an agreement with Spectrum Pharmaceuticals, Inc. to form a 50/50 owned joint venture, RIT Oncology LLC, to commercialize and develop Zevalin in the United States. Additional collaborations might be necessary in order for us to fund our research and development activities and third-party manufacturing arrangements, seek and obtain regulatory approvals and successfully commercialize our existing and future product candidates. If we fail to enter into additional collaborative arrangements or fail to maintain our existing collaborative arrangements, the number of product candidates from which we could receive future revenues would decline. For example, in 2005 we sold our product TRISENOX to Cephalon and, pursuant to the terms of the purchase agreement under which TRISENOX was sold, we are entitled to receive milestone payments upon the approval by the FDA of new labeled uses for TRISENOX, however, Cephalon may decide not to submit any additional information to the FDA to apply for label expansion of TRISENOX, in which case we would not receive a milestone payment under the agreement.

Our dependence on collaborative arrangements with third parties will subject us to a number of risks that could harm our ability to develop and commercialize products, including that:

collaborative arrangements may not be on terms favorable to us;

Table of Contents

disagreements with partners may result in delays in the development and marketing of products, termination of our collaboration agreements or time consuming and expensive legal action;

we cannot control the amount and timing of resources partners devote to product candidates or their prioritization of product candidates and partners may not allocate sufficient funds or resources to the development, promotion or marketing of our products, or may not perform their obligations as expected;

partners may choose to develop, independently or with other companies, alternative products or treatments, including products or treatments which compete with ours;

agreements with partners may expire or be terminated without renewal, or partners may breach collaboration agreements with us;

business combinations or significant changes in a partner's business strategy might adversely affect that partner's willingness or ability to complete its obligations to us; and

the terms and conditions of the relevant agreements may no longer be suitable.

The occurrence of any of these events could adversely affect the development or commercialization of our products.

Because we base several of our drug candidates on unproven novel technologies, we may never develop them into commercial products.

We base several of our product candidates upon novel technologies that we are using to develop drugs for the treatment of cancer. These technologies have not been proven. Furthermore, preclinical results in animal studies may not predict outcomes in human clinical trials. Our product candidates may not be proven safe or effective. If these technologies do not work, our drug candidates may not develop into commercial products.

Because there is a risk of product liability associated with our products, we face potential difficulties in obtaining insurance.

Our business exposes us to potential product liability risks inherent in the testing, manufacturing, marketing and sale of human pharmaceutical products, and we may not be able to avoid significant product liability exposure. While we have insurance covering marketing and sales of Zevalin as well as product use in our clinical trials for our product candidates, it is possible that we will not be able to maintain such insurance on acceptable terms or that any insurance obtained will provide adequate coverage against potential liabilities. Our inability to obtain sufficient insurance coverage at an acceptable cost or otherwise to protect against potential product liability claims could prevent or limit the commercialization of Zevalin or any products we develop. A successful product liability claim in excess of our insurance coverage could exceed our net worth.

Adverse events related to our products can negatively impact our product sales and results from operations.

Our commercial product, Zevalin, has the possibility of causing significant side effects in patients, and deaths associated with an infusion reaction symptom complex, though rare, have occurred within 24 hours of infusions of rituximab, a component of Zevalin. In addition, Yttrium-90 Zevalin administration often results in severe and prolonged cytopenias in most patients, while severe cutaneous and mucocutaneous reactions have also been reported. While side effects are common in oncology drugs, adverse events such as these could negatively impact sales of Zevalin, which in turn could negatively impact our results from operations.

Since we use hazardous materials in our business, we may be subject to claims relating to improper handling, storage or disposal of these materials.

Our research and development activities involve the controlled use of hazardous materials, chemicals and various radioactive compounds. We are subject to international, federal, state, and local laws and regulations governing the use, manufacture, storage, handling and disposal of such materials and certain waste products. Although we believe that our safety procedures for handling and disposing of such materials comply with

the standards prescribed by the regulations, the risk of accidental contamination or injury from these materials cannot be eliminated completely. In the event of such an accident, we could be held liable for any damages that result and any

S-22

Table of Contents

such liability not covered by insurance could exceed our resources. Compliance with environmental laws and regulations may be expensive, and current or future environmental regulations may impair our research, development or production efforts.

We may not be able to conduct animal testing in the future, which could harm our research and development activities.

Certain of our research and development activities involve animal testing. Such activities have been the subject of controversy and adverse publicity. Animal rights groups and other organizations and individuals have attempted to stop animal testing activities by pressing for legislation and regulation in these areas and by disrupting activities through protests and other means. To the extent the activities of these groups are successful, our business could be materially harmed by delaying or interrupting our research and development activities.

Risks Related To the Securities Markets

Our stock price 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 December 1, 2008, our stock price has ranged from a low of \$0.14 to a high of \$27.50. Fluctuations in the trading price or liquidity of our common stock may adversely affect the value of your investment in our common stock.

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

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

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

our issuance of additional debt, equity or other securities, which we need to pursue in 2008 to generate additional funds to cover our current debt and operating expenses;

our quarterly operating results;

developments or disputes concerning patent or other proprietary rights;

developments in our relationships with collaborative partners;

acquisitions or divestitures;

litigation and government proceedings;

adverse legislation, including changes in governmental regulation;

third-party reimbursement policies;

changes in securities analysts' recommendations;

changes in health care policies and practices;

economic and other external factors; and

general market conditions.

In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been instituted. For example, in the case of our company, beginning in March 2005, several class

Table of Contents

action lawsuits were instituted against CTI and certain directors and officers of CTI and a derivative action lawsuit was filed against CTI's full board of directors. While these lawsuits were dismissed with prejudice, as a result of these types of lawsuits, we could incur substantial legal fees and our management's attention and resources could be diverted from operating our business as we respond to the litigation. We maintain significant insurance to cover these risks for the Company and our directors and officers, but our insurance is subject to high deductibles to reduce premium expense, and there is no guarantee that the insurance will cover any specific claim that we may face in the future, or that it will be adequate to cover all potential liabilities and damages.

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

Provisions of our articles of incorporation and 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 so that only approximately one third of the 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 bylaws without shareholder approval; and

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.

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.

Risks Related to this Offering

There is no public market for the notes to be issued in this offering.

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

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

We intend to use the net proceeds for general corporate purposes. With the exception of the proceeds that we will deposit in the escrow account for future interest and Make-Whole Payments on the notes and the approximately \$16.4 million of proceeds that we will use as a portion of the \$29 million purchase price for approximately \$30 million aggregate principal amount of our outstanding 15% convertible senior notes, Series B 18.33% convertible senior notes and 9.66% convertible senior notes and all warrants to purchase common stock held by the investor in this offering, we have not allocated specific amounts of the net proceeds from this offering for any specific purpose. Accordingly, our management will have significant flexibility in applying the net proceeds of this offering. You will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. It is possible that the net proceeds will be invested in a way that does not yield a favorable, or any, return for our company. The failure of our management to use such funds effectively could have a material adverse effect on our business, financial condition, operating results and cash flow.

Table of Contents

Holders of our notes will have no rights as a common stockholder until they acquire our common stock.

Until you acquire shares of our common stock upon conversion of the offered notes, you will have no rights with respect to our common stock, including rights to respond to tender offers and rights to receive any dividends or other distributions on our common stock. Upon conversion of the notes, you will be entitled to exercise the rights of a common shareholder only as to matters for which the record date occurs after the conversion date.

S-25

Table of Contents

USE OF PROCEEDS

We estimate that the net proceeds of this offering, after deducting estimated fees and expenses, will be approximately \$6.2 million.

We will deposit \$9,795,396 into an escrow account to be used to make interest payments and make-whole payments on the Notes for 12 months following closing of the Notes.

We will also use approximately \$16.4 million of the proceeds received in this offering as a portion of the \$29 million purchase price for approximately \$30 million aggregate principal amount of our outstanding convertible notes, including approximately \$4.9 million principal amount of our 15% convertible senior notes, approximately \$16.3 million principal amount of our Series B 18.33% convertible senior notes and \$9.0 million principal amount of our 9.66% convertible senior notes, and all warrants to purchase common stock held by the investor, issued to the investor in this offering in various offerings between March and October 2008. We will use funds released to us from the escrow account established to pay the make whole and interest payments on the 15% convertible senior notes, the Series B 18.33% convertible senior note and the 9.66% convertible senior notes to pay the remaining approximately \$12.6 million of the repurchase price.

We currently intend to use the remaining net proceeds from this offering for working capital and for general corporate purposes, which may include, among other things, a tender offer for our remaining outstanding convertible notes, paying interest on our outstanding indebtedness, paying dividends on our preferred stock, funding research and development, preclinical and clinical trials, the preparation and filing of new drug applications, commercial operations, including sales and marketing associated with Zevalin, and general working capital.

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

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. Except for dividends payable on the Series A 3% Convertible Preferred Stock, the Series B 3% Convertible Preferred Stock, the Series C 3% Convertible Preferred Stock and the Series D 7% Convertible Preferred Stock, 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.

Table of Contents

DESCRIPTION OF THE NOTES

The material terms and provisions of the convertible notes 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 of the notes as set forth in the indenture and form of note to be filed as exhibits to our current report on Form 8-K which we will file with the SEC on or about December 8, 2008.

The 10% convertible senior notes due December 5, 2011 will be senior unsecured debt securities as described in the accompanying prospectus. The Series C 10% convertible senior notes due approximately January 2012 would also be senior unsecured debt securities as described in the accompanying prospectus. The following description of the particular terms of the notes offered hereby supplements and, to the extent inconsistent therewith, replaces the description of the general terms and provisions of the senior debt securities set forth in the accompanying prospectus. Capitalized terms used herein and not defined in this prospectus supplement shall have the meanings given to them in the accompanying prospectus or in the indenture referred to in this prospectus supplement.

General

We will issue the Notes under an indenture, dated as of December 5, 2008, between us and U.S. Bank, National Association, as trustee. An officers certificate will set forth the terms of the notes in accordance with the indenture. The notes will rank equally with all of our other unsecured senior debt. See Description of Debt Securities in the accompanying prospectus for a description of the general terms and provisions of our senior debt securities, including the notes, issued under the indenture(s).

We may, without the consent of the holders of the notes, issue additional notes having the same ranking and the same interest rate, maturity and other terms (except for the public offering price and issue date) as the notes, provided that such additional notes do not have, for purposes of U.S. federal income taxation, a greater amount of original issue discount than the outstanding notes offered hereby have as of the date of the issue of such additional notes. Any of these additional notes, together with the notes offered hereby, will constitute a single series of notes under the indenture. No additional notes may be issued if an event of default has occurred with respect to the notes.

We will issue the notes only in registered form, in denominations of \$1,000 and integral multiples thereof. We will pay principal and interest at the corporate trust office of the trustee in New York, New York or at such other office or agency that we will maintain for such purpose in New York, New York. At our option, we may pay interest by check mailed to the person entitled to payment at that person's address appearing on the register of the notes.

The notes will not be redeemable prior to maturity. The notes will not be subject to any sinking fund, however, in the event we issue secured indebtedness, other than liens or encumbrances in connection with biopharmaceutical licensing or partnering arrangements, that is junior to or pari passu with the notes in a principal amount in excess of \$10 million while these notes are outstanding, the notes being issued in this offering must be equally and ratably secured with such future indebtedness. We may not issue unsecured indebtedness that is structurally senior to these notes so long as these notes remain outstanding.

The Notes will initially be limited to a total principal amount of \$32,651,321, and will mature on December 5, 2011. The C Notes will initially be limited to a total principal amount of \$6,000,000, and will mature on the third anniversary of the issuance date of the C Notes.

The notes will bear interest from issuance of the respective notes at the annual rate of 10%. We will pay interest semiannually on the notes on each May 15 and November 15, beginning on May 15, 2009, to the person in whose name the notes are registered at the close of business on May 1 or November 1 prior to the payment date.

We will compute interest on the notes on the basis of a 360-day year consisting of twelve 30-day months. If an interest payment date or the maturity date falls on a day that is not a business day, the payment will be made on the next business day as if it were made on the date the payment was due, and no interest will accrue on the amount so payable for the period from and after that interest payment date or the maturity date, as the case may be, to the date the payment is made.

Table of Contents

Form, Denomination, Transfer, Exchange and Book-Entry Procedures

The notes are issued:

only in fully registered form;

without interest coupons; and

in denominations of \$1,000 and integral multiples thereof.

Principal of, premium, if any, and interest (and liquidated damages, as defined below, if any) on the notes is payable, and the notes may be presented for registration or exchange, at the office or agency we maintain for such purpose in the Borough of Manhattan, The City of New York. Until we designate otherwise, our office or agency is the trustee's corporate trust office presently located in the Borough of Manhattan, The City of New York.

The notes are or will be evidenced by one or more global notes that are deposited with the trustee as custodian for the account of the holder and registered in the name of such holder.

The laws of some jurisdictions require that certain kinds of purchasers can only own securities in physical, certificated form. These laws may limit your ability to acquire interest in the notes and to transfer or encumber your beneficial interests in the global note to these types of purchasers.

S-28

Table of Contents

Conversion Rights

You may, at your option, convert the principal amount of any note that is an integral multiple of \$1,000 into shares of our common stock at any time prior to the close of business on the maturity date, unless the note has been previously repurchased or redeemed at your option. If the notes are subject to repurchase, you may convert your notes at any time before the close of business on the business day immediately preceding the date fixed for repurchase, unless we default in making the payment due upon repurchase. In each case, the initial conversion rate is equal to approximately 7,299.27 shares per \$1,000 principal amount of notes, which is equivalent to a conversion price of \$0.137 per share. The conversion rate is subject to adjustment as described below.

You can convert a note by delivering the note to the trustee's corporate trust office, accompanied by a duly signed and completed notice of conversion, a copy of which may be obtained from the trustee. In the case of a global note, we have been informed that DTC will effect the conversion upon notice from the holder of a beneficial interest in the global note in accordance with DTC's rules and procedures. The conversion date is the date on which the note and the duly signed and completed notice of conversion are so delivered to the trustee. As promptly as practicable on or after the conversion date, we will issue and deliver to the trustee a certificate or certificates for the number of full shares of common stock issuable upon conversion, together with payment in fractional shares, and the trustee shall deliver the certificate(s) to the conversion agent for delivery to the holder of the note being converted. The shares of our common stock issuable upon conversion of the notes will be fully paid and nonassessable.

If you surrender a note for conversion on a date that is not an interest payment date, you are not entitled to receive any interest for the period from the preceding interest payment date to the date of conversion, except as described below. However, if you are a holder of a note on a regular record date, including a note that is subsequently surrendered for conversion after the regular record date,

Table of Contents

you receive the interest payable on such note on the next interest payment date. To correct for this resulting overpayment of interest, we require that any note surrendered for conversion during the period from the close of business on a regular record date to the opening of business on the next interest payment date be accompanied by payment of an amount equal to the interest payable on such interest payment date on the principal amount of notes being surrendered for conversion. However, you are not required to make that payment if you are converting a note, or a portion of a note, that you are entitled to require us to repurchase from you, if your conversion right would terminate because of the repurchase between the regular record date and the close of business on the next interest payment date.

The Indenture(s) provide that the number of shares of common stock that may be acquired by you upon any conversion of the notes (or otherwise in respect hereof) shall be limited to the extent necessary to insure that, following such conversion (or other issuance), the total number of shares of common stock then beneficially owned by you and your affiliates and any other persons whose beneficial ownership of common stock would be aggregated with yours for purposes of Section 13(d) of the Exchange Act, does not exceed 9.99% of the total number of issued and outstanding shares of common stock (including for such purpose the shares of common stock issuable upon such conversion). This provision shall not restrict the number of shares of common stock which you may receive or beneficially own in order to determine the amount of securities or other consideration that you may receive in the event of a change in control. This restriction may not be waived.

If we distribute rights or warrants (other than those referred to in paragraph (2) below) pro rata to holders of common stock, so long as any such rights or warrants have not expired or been redeemed by us, the holder of any note surrendered for conversion is entitled to receive upon such conversion, in addition to the shares of common stock issuable upon such conversion (which we refer to in this prospectus as the conversion shares), a number of rights or warrants to be determined as follows:

if such conversion occurs on or prior to the date for the distribution to the holders of rights or warrants of separate certificates evidencing such rights or warrants (which we refer to in this prospectus as the distribution date), the same number of rights or warrants to which a holder of a number of shares of common stock equal to the number of conversion shares is entitled at the time of such conversion in accordance with the terms and provisions of, and applicable to, the rights or warrants; and

if such conversion occurs after such distribution date, the same number of rights or warrants to which a holder of the number of shares of common stock into which such note was convertible immediately prior to such distribution date would have been entitled on such distribution date in accordance with the terms and provisions of, and applicable to, the rights or warrants.

No other payment or adjustment for interest, or for any dividends on our common stock, will be made upon conversion. If you receive common stock upon conversion of a note, you will not be entitled to receive any dividends payable to holders of common stock as of any record date before the close of business on the conversion date. We will not issue fractional shares upon conversion of notes. Instead, we will pay an amount in cash based on the closing sales price of our common stock on the conversion date.

If you deliver a note for conversion, you are not required to pay any taxes or duties in respect of the issuance or delivery of common stock on conversion. However, you are required to pay any tax or duty that may be payable in respect of any transfer involved in the issuance or delivery of our common stock in a name other than yours. We will not issue or deliver certificates representing shares of common stock unless the person requesting the issuance or delivery has paid to us the amount of any such tax or duty or has established to our satisfaction that no such tax or duty is payable.

The conversion rate is subject to adjustment if, among other things:

- (1) there is a dividend or other distribution payable in common stock on shares of our common stock;
- (2) we issue to all holders of common stock rights, options or warrants entitling them to subscribe for or purchase common stock at less than the then current market price, calculated as described in the indenture, of our common stock; however, if those rights, options or warrants are only exercisable upon the occurrence of specified triggering events, then the conversion rate will not be adjusted until the triggering events occur;
- (3) we subdivide, reclassify or combine our common stock;
- (4) we distribute to all holders of our common stock evidences of our indebtedness, shares of capital stock, cash or assets, including securities, but excluding: those dividends, rights, options, warrants and distributions referred to in paragraphs (1) and (2) above;

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

dividends and distributions paid in cash (except as set forth in paragraphs (5) and (6) below); and

distributions upon a merger or consolidation as discussed below;

S-30

Table of Contents

(5) we make a distribution consisting exclusively of cash (excluding portions of distributions referred to in clause (4) above and cash distributed upon a merger or consolidation as discussed below) to all holders of our common stock if the aggregate amount of the distribution combined together with (A) all other such cash distributions made within the preceding 365-day period in respect of which no adjustment has been made and (B) any cash and the fair market value of other consideration payable in respect of any tender offer by us or any of our subsidiaries for our common stock concluded within the preceding 365-day period in respect of which no adjustment has been made, exceeds 10% of our market capitalization, being the product of the current market price per share of our common stock on the record date for such distribution and the number of shares of common stock then outstanding; or

(6) the successful completion of a tender offer made by us or any of our subsidiaries for our common stock that involves aggregate consideration that, together with (A) any cash and the fair market value of other consideration payable in a tender offer by us or any of our subsidiaries for our common stock concluded within the 365-day period preceding the completion of such tender offer in respect of which no adjustment has been made and (B) the aggregate amount of any such all cash distributions referred to in paragraph (5) above to all holders of common stock within the 365-day period preceding the expiration of such tender offer in respect of which no adjustments have been made, exceeds 10% of our market capitalization on the expiration of such tender offer.

If we implement a new rights plan, we are required under the indenture to provide that the holder of notes receives the rights upon conversion of the notes, whether or not these rights were separated from the common stock prior to conversion, subject to certain limited exceptions.

We reserve the right to make such increases in the conversion rate in addition to those required by the provisions described above as we may consider to be advisable so that any event treated for United States federal income tax purposes as a dividend of stock or stock rights is not taxable to the recipients. We are not required to make any adjustment to the conversion rate until the cumulative required adjustments amount to 1.0% or more of the conversion rate. We will compute any adjustments to the conversion rate and give notice to the holders of any such adjustments.

If we merge into or consolidate with another person or sell or transfer all or substantially all of our assets, each note then outstanding, without the consent of the holder of any note, becomes convertible only into the kind and amount of securities, cash and other property receivable upon such consolidation, merger, sale or transfer by a holder of the number of shares of common stock into which the note was convertible immediately prior to the merger, consolidation or sale. This calculation is made based on the assumption that the holder of common stock failed to exercise any rights of election that the holder may have had to select a particular type of consideration. The adjustment is not made for a merger that does not result in any reclassification, conversion, exchange or cancellation of our common stock.

We may, from time to time, increase the conversion rate by any amount for any period of at least 20 days if our board of directors has determined that such increase would be in our best interests. Any such determination will be conclusive. We will give holders of notes at least 15 days notice of this increase in the conversion rate.

If at any time we make a distribution of property to our shareholders that would be taxable to them as a dividend for United States federal income tax purposes (for example, distributions of evidences of indebtedness or assets by us, but generally not stock dividends on common stock or rights to subscribe for common stock) and, pursuant to the anti-dilution provisions of the indenture, the number of shares into which notes are convertible is increased, that increase may be deemed for United States federal income tax purposes to be the payment of a taxable dividend to holders of notes. You should consult your tax advisor for more information on the tax consequences based on your particular situation.

Make Whole Payment

If a note is converted, we will pay the holder of the converted note an amount equal to \$300 per \$1,000 principal amount of notes converted less interest paid with respect to such converted notes before the relevant conversion date (the **Make Whole Amount**). The **Make Whole Amount** will be paid in cash within 5 business days of the relevant conversion date of the notes.

Right to Require Repurchase upon a Change in Control

If a change in control occurs, you have the right, at your option, to require us to repurchase all of your notes, or any portion of the principal amount of your notes that is equal to \$1,000 or any greater integral multiple of \$1,000. The price we are required to pay is 100% of the principal amount of the notes to be repurchased, together with interest accrued to the repurchase date.

Within 30 days after the occurrence of a change in control, we will mail you notice of the change in control and of your repurchase right arising as a result of the change in control. We will also deliver a copy of this notice to the trustee. To exercise the

Table of Contents

repurchase right, you must deliver, on or before the 30th day (or such greater period as may be required by applicable law) after the date of our notice, irrevocable written notice to the trustee of your exercise of your repurchase right, together with the notes with respect to which that right is being exercised. We are required to make the repurchase on a date that is no later than 45 days after your notice to the trustee.

A change in control is deemed to have occurred at such time, after the original issuance of the notes, any of the following occurs:

any person, including any syndicate or group deemed to be a person under Section 13(d)(3) of the Exchange Act, (1) acquires beneficial ownership, directly or indirectly, through a purchase, merger or other acquisition transaction or series of transactions, of shares of Cell Therapeutics, Inc.'s capital stock entitling that person to exercise more than 50% of the total voting power of all shares of our capital stock entitled to vote generally in elections of directors; however, any acquisition by Cell Therapeutics, Inc., any of its subsidiaries or any of our employee benefit plans will not trigger this provision or (2) succeeds in having sufficient of its nominees (who are not supported by a majority of the then current board of directors) elected to the board of directors of Cell Therapeutics, Inc. such that such nominees, when added to any existing directors remaining on the board of directors after such election who are affiliates of or acting in concert with such person, shall constitute a majority of the board of directors;

we consolidate with or merge with or into any other person or another person merges into us, except if the transaction satisfies any of the following:

the transaction is a merger (A) that does not result in any reclassification, conversion, exchange or cancellation of outstanding shares of our capital stock and (B) pursuant to which holders of our common stock immediately prior to the transaction have, directly or indirectly, 50% or more of the total voting power of all shares of capital stock or other ownership interest of the continuing or surviving person entitled to vote generally in elections of directors of the continuing or surviving person immediately after the transaction; or

the transaction is a merger effected only to change our jurisdiction of incorporation and it results in a reclassification, conversion or exchange of outstanding shares of our common stock only into shares of common stock of Cell Therapeutics, Inc. or another corporation; or

we convey, transfer, sell, lease or otherwise dispose of all or substantially all of our assets to another person.

For purposes of these provisions:

the conversion price is equal to \$1,000 divided by the conversion rate; and

whether a person is a beneficial owner is determined in accordance with Rule 13d-3 under the Exchange Act.

Any repurchase of notes arising as a result of the change in control will be made in compliance with all applicable laws, rules and regulations, including, if applicable Regulation 14E under the Exchange Act and the rules thereunder and all other applicable federal and state securities laws. To the extent the provisions of any, securities laws or regulations conflict with the provisions of this covenant, our compliance with such laws and regulations shall not be deemed to cause a breach of our obligations under the indenture.

We may, to the extent permitted by applicable law, at any time purchase notes in the open market or by tender or by private agreement. Any note that we so purchase may, to the extent permitted by applicable law, be reissued or resold or may, at our option, be surrendered to the trustee for cancellation. Any notes surrendered may not be reissued or resold and will be canceled promptly.

The definition of change in control includes a phrase relating to the conveyance, transfer, sale, lease or disposition of all or substantially all of our assets. There is no precise, established definition of the phrase substantially all under applicable law. Accordingly, your ability to require us

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

to repurchase your notes as a result of conveyance, transfer, sale, lease or other disposition of less than all of our assets may be uncertain.

The foregoing provisions may not necessarily provide you with protection if we are involved in a highly leveraged or other transaction that may adversely affect you.

S-32

Table of Contents

Mergers and Sales of Assets

Without the consent of the holders of the notes, we may not consolidate with or merge into any other person, or convey, transfer, sell or lease our properties and assets substantially as an entirety to any person, and we may not permit any person to consolidate with or merge into us or convey, transfer, sell or lease such person's properties and assets substantially as an entirety to us, unless each of the following requirements is met:

We are the surviving person or the person formed by the consolidation or into which we are merged or the person to which its properties and assets are conveyed, transferred, sold or leased, is (1) a corporation, limited liability company, partnership or trust organized and existing under the laws of the United States, any State or the District of Columbia or (2) organized under the laws of a jurisdiction outside the United States and has common stock or American Depositary Shares representing such common stock traded on a national securities exchange in the United States, including The NASDAQ Stock Market, Inc. and, in each case, if an entity other than us, expressly assumes the due and punctual payment of the principal of, any premium, and interest (and liquidated damages, if any) on the notes and the performance of our other covenants under the indenture; and

immediately after giving effect to that transaction, no event of default, and no event that, after notice or lapse of time or both, would become an event of default, shall have occurred and be continuing; and

other conditions described in the indenture are met.

Upon any consolidation or merger or any transfer of all or substantially all of our assets, the successor corporation formed by such consolidation or into which we are merged or to which such transfer is made, shall succeed to, and be substituted for, and may exercise every right and power we have under the indenture with the same effect as if such successor corporation had been named in the indenture as Cell Therapeutics, Inc., and we shall be released from the obligations under the notes and the indenture except with respect to any obligations that arise from, or are related to, such transaction.

Events of Default

The following are events of default under the indenture:

we fail to pay principal of or any premium on any note when due;

we fail to pay any interest or the Make-Whole Amount on any note when due and that default continues for 30 days;

we fail to give the notice that we are required to give if there is a change in control;

we fail to perform any other covenant in the indenture and that failure continues for 60 days after written notice to us by the trustee or the holders of at least \$1,000,000 in aggregate principal amount of outstanding notes;

we fail to pay when due the principal of any indebtedness for money borrowed by us or any of our significant subsidiaries, if any, in excess of \$10 million if the indebtedness is not discharged and such failure continues for 30 days or more, or, if such indebtedness has been accelerated, such acceleration is not annulled, within 30 days after written notice to us by the trustee or the holders of at least \$1,000,000 in aggregate principal amount of the outstanding notes; and

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

certain events of bankruptcy, insolvency or reorganization with respect to us and our significant subsidiaries specified in the indenture.

Subject to the provisions of the indenture relating to the trustee's duties, if an event of default exists, the trustee is not obligated to exercise any of its rights or powers under the indenture at the request or direction of any of the holders, unless they have offered to the trustee reasonable indemnity. Subject to such trustee indemnification provisions, the holders of a majority in aggregate principal amount of the outstanding notes have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee, provided that such direction does not conflict with any rule of law or with the indenture, and the trustee may take any other action the trustee deems proper which is not inconsistent with such direction.

If an event of default, other than an event of default arising from events of bankruptcy, insolvency or reorganization with respect to us, occurs and is continuing, either the trustee or the holders of at least 25% in principal amount of the outstanding notes may accelerate the maturity of all notes. After acceleration, but before a judgment or decree based on acceleration, the holders of a majority in aggregate principal amount of outstanding notes may, under circumstances set forth in the indenture, rescind the acceleration if all events of default, other than the non-payment of principal of the notes which have become due solely because of the acceleration, have been cured or waived as provided in the indenture. If an event of default arising from events of bankruptcy, insolvency or reorganization with respect to us occurs and is continuing, then the principal of, and accrued interest (and liquidated

S-33

Table of Contents

damages, if any) on, all of the notes will automatically become immediately due and payable without any declaration or other act on the part of the holders of the notes or the trustee.

You do not have any right to institute any proceeding relating to the indenture, or to appoint a receiver or a trustee, or for any other remedy under the indenture, unless:

you have given the trustee written notice of a continuing event of default;

the registered holders of at least \$1,000,000 of the aggregate principal amount of all outstanding notes have made a written request of the trustee to take action because of the default and have furnished reasonable indemnification to the trustee against the cost, liabilities and expenses of taking such action;

the trustee shall not have taken action for 30 days after receiving such notice and offer of indemnification; or

the trustee has not received any direction inconsistent with such written request from the holders of a majority of the aggregate principal amount of all outstanding notes during such 30-day period.

These limitations do not apply to a suit for the enforcement of payment of the principal of, or any premium or interest (and liquidated damages, if any) on, a note, or the repurchase price payable for a note on or after the due dates for such payments, or of the right to convert the note in accordance with the indenture.

We will furnish to the trustee annually a statement as to our performance of our obligations under the indenture and as to any default in performance.

Modification and Waiver

The indenture contains provisions permitting us and the trustee to enter into a supplemental indenture for certain limited purposes without the consent of the holders of the notes. With the consent of the holders of not less than a majority in aggregate principal amount of the notes at the time outstanding, we and the trustee are permitted to amend or supplement the indenture or any supplemental indenture or modify the rights of the holders, provided, that no such modification may, without the consent of each holder affected thereby:

change the stated maturity of the principal or interest of any note;

reduce the principal amount, any premium or interest on any note;

amend or modify our obligation to make or consummate a repurchase offer upon a change in control after our obligation to make a change in control repurchase offer arises;

change the place or currency of payment on any note;

impair the right to institute suit for the enforcement of any payment on any note;

adversely affect the right of any holder of notes to convert its notes;

reduce the percentage of holders whose consent is needed to modify, amend or waive any provision in the indenture; or

modify the provisions dealing with modification and waiver of the indenture, except to increase any required percentage or to provide that certain other provisions of the indenture cannot be modified or waived without consent of the holder of each outstanding note affected thereby.

The holders of a majority in principal amount of the outstanding notes may waive our compliance with certain restrictive provisions of the indenture. The holders of a majority in principal amount of the outstanding notes may waive any past default, except a default in the payment of principal, any premium, interest, the Make-Whole Payment or the repurchase price.

Notes are not considered outstanding if money for their payment has been deposited or set aside in trust for the holders.

Replacement of Notes

We will replace, at the holders' expense, notes that become mutilated, destroyed, stolen or lost upon delivery to the trustee of the mutilated notes or evidence of the loss, theft or destruction thereof satisfactory to us and the trustee. In the case of a lost, stolen or destroyed note, indemnity satisfactory to the trustee and us may be required at the expense of the holder of the note before a replacement note will be issued.

Table of Contents

No Personal Liability of Shareholders, Officers, Directors and Employees

No direct or indirect shareholder, officer, director or employee, as such, past, present or future of CTI, or any successor entity, shall have any personal liability in respect of our obligations under the indenture or the notes solely by reason of his or its status as such shareholder, officer, director or employee.

Governing Law

The indenture, the notes and the registration rights agreement are governed by and construed in accordance with the laws of the State of New York, United States of America.

The Trustee

The trustee for the holders of notes issued under the indenture is U.S. Bank National Association. If an event of default occurs, and is continuing, the trustee is required to use the degree of care of a prudent person in the conduct of his own affairs in the exercise of its powers. Subject to these provisions, the trustee is under no obligation to exercise any of its rights or powers under the indenture at the request of any holders of notes, unless they have offered the trustee reasonable security or indemnity.

Absence of Public Market

There is no existing market for the notes and there can be no assurance as to the liquidity of any markets that may develop for the notes, the ability of holders to sell their notes or at what price holders of the notes will be able to sell their notes. Future trading prices of the notes will depend upon many factors including, among other things, prevailing interest rates, our operating results, the price of our common stock and the market for similar securities. There is no established public trading market for the notes. We do not intend to apply for listing of the notes on any securities exchange. See the section entitled "Plan of Distribution" for more information.

CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS

The purchaser of the notes and the common stock underlying the notes is advised to consult its own tax advisors regarding the federal, state, local and foreign tax consequences of the purchase, ownership, conversion and disposition of the notes and the common stock underlying the notes in its particular situation.

Table of Contents

PLAN OF DISTRIBUTION

In connection with this offering, we will pay fees to Rodman & Renshaw, LLC, who acted as our sole placement agent (the "placement agent"). The placement agent will be working solely on a "best efforts" basis and is not purchasing or selling any securities by this prospectus supplement or the accompanying prospectus, nor is it required to arrange for the purchase and sale of any specific number or dollar amount of securities. Under no circumstances will the fee, commission or discount received by the placement agent or any other FINRA member or independent broker-dealer exceed eight percent of the gross proceeds to us in this offering or any other offering in the United States pursuant to the Prospectus.

The securities purchase agreement provides that the obligations of the investor in the offering are subject to certain conditions precedent.

Confirmations and this prospectus supplement will be delivered, or otherwise made available, to the investor who agrees to purchase the Notes, informing such investor of the closing date as to such securities. We currently anticipate that closing of the sale of \$32,651,321 in principal amount of the Notes will take place on or about December 5, 2008. The investor will also be informed of the date and manner in which it must transmit the purchase price for the securities being purchased.

On the scheduled closing date, the following will occur:

we will receive funds in the amount of the aggregate purchase price of the \$32,651,321 in principal amount of the Notes;

we will issue the \$32,651,321 in Notes; and

we will pay a \$325,000 fee to the placement agent.

The estimated offering expenses payable by us for this offering, excluding the placement agent's fees, are \$50,000, which include legal, accounting and printing costs and various other fees. We have agreed to indemnify the placement agent against certain liabilities, including liabilities under the Securities Act. We may also be required to contribute to payments the placement agent may be required to make in respect of such liabilities.

The agreement with the placement agent and the form of securities purchase agreement with the investor are to be included as exhibits to our current report on Form 8-K to be filed with the SEC on or about December 8, 2008.

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

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

Table of Contents

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

LEGAL MATTERS

The validity of the issuance of the Cell Therapeutics, Inc. securities offered by, and the binding nature of Cell Therapeutics' obligations under the notes offered by, this prospectus supplement and accompanying prospectus will be passed upon for Cell Therapeutics, Inc. by Orrick, Herrington & Sutcliffe LLP, San Francisco, California.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

We are subject to the information requirements of the Securities Exchange Act of 1934 (the Exchange Act). In accordance with the Exchange Act, we file reports, proxy statements and other information with the SEC. You may read and copy any reports, statements and other information filed by us at the SEC's Public Reference Room 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. The SEC maintains an Internet site at <http://www.sec.gov> that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC.

We make available, free of charge, through our investor relations website, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, statements of changes in beneficial ownership of securities and amendments to those reports and statements as soon as reasonably practicable after they are filed with the SEC. We also make available on our website other important information such as press releases, presentations from investor and medical conferences, as well as other information about our company. The address for our website is <http://www.celltherapeutics.com> and the address for the investor relations page of our website is <http://www.celltherapeutics.com/investors>. The contents of our website are not part of this prospectus, and the reference to our website does not constitute incorporation by reference into this prospectus of the information contained at that site.

Our common stock is listed on The NASDAQ Global Market and such reports, proxy statements and other information concerning us may be inspected at the offices of The NASDAQ Stock Market, 1735 K Street, N.W., Washington, D.C. 20006.

SEC rules allow us to incorporate by reference into this prospectus supplement the information we file with the SEC. This means that we can disclose important information by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus. Information that we file later with the SEC, including all filings filed by us pursuant to the Exchange Act after the date of the initial registration statement and prior to the effectiveness of the registration statement, will automatically update and supersede this information.

In addition to the documents listed in the accompanying prospectus, we incorporate by reference the following documents:

our annual report on Form 10-K for the fiscal year ended December 31, 2007, as amended;

our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2008, June 30, 2008 and September 30, 2008, filed on May 12, 2008, August 18, 2008 and November 7, 2008, respectively;

our definitive Proxy Statement on Schedule 14A, dated and filed with the SEC on May 23, 2008 for our 2008 Special Meeting in Lieu of Annual Meeting of Shareholders;

our Current Reports on Form 8-K, and Amended Current Reports filed on Form 8-K/A, filed on January 3, 2008, January 14, 2008, January 18, 2008, January 29, 2008, February 5,

Table of Contents

2008, February 19, 2008, March 5, 2008, March 11, 2008, March 21, 2008, April 4, 2008, April 18, 2008, April 30, 2008, May 2, 2008, June 13, 2008, June 20, 2008, June 24, 2008, July 25, 2008, July 30, 2008, August 6, 2008, August 20, 2008, September 4, 2008, September 5, 2008, September 17, 2008, October 1, 2008, October 10, 2008, October 24, 2008 and November 28, 2008; and

The description of our capital stock contained in our Registration Statements on Form 10 filed with the SEC on June 27, 1996 and June 28, 1996, including any amendment or reports filed for the purpose of updating that description.

Any documents subsequently filed by us with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, prior to the termination of the offering, shall be deemed to be incorporated by reference into this prospectus supplement and the accompanying prospectus. You should rely only on the information provided or incorporated by reference in the prospectus or any prospectus supplement. We have not authorized anyone else to provide you with different information.

We will provide without charge to each person, including any beneficial owner of our common stock, to whom this prospectus is delivered, upon written or oral request, a copy of any and all of the documents that have been incorporated by reference in the prospectus or prospectus supplement but not delivered with the prospectus and prospectus supplement (without exhibits, unless the exhibits are specifically incorporated by reference but not delivered with the prospectus and prospectus supplement). Requests should be directed to Louis A. Bianco, Executive Vice President, Finance and Administration, Cell Therapeutics, Inc., 501 Elliott Avenue West, Suite 400, Seattle, Washington 98119.

Table of Contents

PROSPECTUS

\$150,000,000

Common Stock

Preferred Stock

Debt Securities

Warrants

From time to time, we may sell any of the securities listed above.

We will provide the specific terms of these securities in one or more supplements to this prospectus. You should read this prospectus, the information incorporated by reference and any prospectus supplement carefully before you invest.

Our common stock is quoted on the Nasdaq Global Market under the symbol **CTICD** and on the MTA in Italy under the symbol **CTIC**. On September 30, 2008, the symbol for our common stock quoted on the Nasdaq Global Market will change to **CTIC**. On September 4, 2008, the last reported sale price of our common stock on the Nasdaq Global Market was \$1.99.

The applicable prospectus supplement will contain information, where applicable, as to any other listing on the Nasdaq Global Market or any securities exchange or market of the securities covered by the prospectus supplement.

Investing in our securities involves significant risks, which we describe in our annual report on Form 10-K for the year ended December 31, 2007 and in other documents that we subsequently file with the Securities and Exchange Commission, and which we will describe in supplements to this prospectus.

This prospectus may not be used to offer or sell any securities unless accompanied by a prospectus supplement.

NOTE: We effected a one-for-ten reverse split of our common stock on August 31, 2008. All numbers in this prospectus are adjusted and take into account the reverse split.

We may sell the securities to or through underwriters or dealers, directly to purchasers or through agents designated from time to time. For additional information on the methods of sale, you should refer to the section entitled **Plan of Distribution** in this prospectus. If any underwriters are involved in the sale of any securities with respect to which this prospectus is being delivered, the names of such underwriters and any applicable discounts or commissions and over-allotment options will be set forth in a prospectus supplement. The price to the public of such securities and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

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 September 19, 2008

Table of Contents

TABLE OF CONTENTS

	Page
<u>About This Prospectus</u>	i
<u>Summary</u>	1
<u>Special Note Regarding Forward-Looking Statements</u>	9
<u>Risk Factors</u>	9
<u>Use of Proceeds</u>	23
<u>Description of Capital Stock</u>	24
<u>Description of Debt Securities</u>	26
<u>Description of Warrants</u>	31
<u>Legal Ownership of Securities</u>	34
<u>Plan of Distribution</u>	37
<u>Legal Matters</u>	39
<u>Experts</u>	39
<u>Where You Can Find More Information</u>	40

No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus or any prospectus supplement. You must not rely on any unauthorized information or representations. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus or any applicable prospectus supplement is current only as of its date, and the information contained in any document incorporated by reference in this prospectus is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or any prospectus supplement or any sale of a security.

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or SEC, using a shelf registration process. Under the shelf registration process, we may sell common stock, preferred stock, debt securities or warrants in one or more offerings up to a total dollar amount of \$150,000,000. 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 those securities. We may also add, update or change in the prospectus supplement any of the information contained in this prospectus. This prospectus, together with the applicable prospectus supplements and the documents incorporated by reference into this prospectus, includes all material information relating to this offering. Please carefully read both this prospectus and any prospectus supplement together with the additional information described below under Where You Can Find More Information before buying securities in this offering.

You should rely only on the information contained or incorporated by reference in this prospectus or a 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 assume that the information appearing in this prospectus or any prospectus supplement, as well as information we have previously filed with the SEC and incorporated by reference, is accurate as of 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 may not be used to consummate a sale of our securities unless it is accompanied by a prospectus supplement.**

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.

Table of Contents**SUMMARY**

The following summary highlights information contained elsewhere, or incorporated by reference, in this prospectus. The following summary does not contain all the information that you should consider before investing in our common stock. You should read this entire prospectus carefully, including the documents that we incorporate by reference into this prospectus. Unless otherwise indicated, CTI, Company, we, us, our and similar terms refer to Cell Therapeutics, Inc. and its subsidiaries.

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.

On December 21, 2007, we completed our acquisition of the U.S. development, sales and marketing rights to the radiopharmaceutical product Zevalin® (Ibritumomab Tiuxetan), or Zevalin, from Biogen Idec Inc., or Biogen, pursuant to an Asset Purchase Agreement. Zevalin was the first radioimmunotherapy approved by the U.S. Food and Drug Administration, or FDA. It was approved in 2002 to treat patients with relapsed or refractory low-grade, follicular, or B-cell non-Hodgkin's lymphoma, or NHL. The assets acquired included the Zevalin FDA registration, FDA dossier, U.S. trademark, trade name and trade dress, customer list, certain patents and the assignment of numerous contracts. Additionally, we entered into a seventy-eight month supply agreement with Biogen to manufacture Zevalin for sale in the United States as well as a security agreement providing Biogen a first priority security interest in the assets purchased in the transaction. We made an upfront payment to Biogen of \$10.1 million at the time of closing and are also responsible for up to \$20 million in contingent milestone payments based on positive trial outcomes and FDA approval for label expansion. We are also obligated to make additional royalty payments based on net sales of Zevalin.

On June 16, 2008, we entered into an Access Agreement with Bayer Schering Pharma AG, or Bayer, which holds the rights to Zevalin outside of the United States. Under the agreement, Bayer has agreed to give us access to data from Bayer's phase III first-line indolent trial, or FIT trial, of Zevalin. We expect to use the data from the trial to begin discussions with the U.S. Food and Drug Administration, or FDA, regarding the potential for a supplemental Biologics License Application, or sBLA, for Zevalin based on the FIT trial results. The first meeting with the FDA to discuss the potential for label expansion of Zevalin based on the FIT data is scheduled for September 2008. Under the terms of the agreement with Bayer, we made an initial payment to Bayer of \$2 million. Beginning January 1, 2009, we will also pay Bayer royalties on net sales of Zevalin until an aggregate of \$11.5 million in royalties has been paid to Bayer under the agreement. We will make an additional payment of \$3 million to Bayer if we are able to obtain FDA approval of an sBLA for Zevalin based on the FIT trial results.

On July 31, 2007, we completed our acquisition of Systems Medicine, Inc., or SM, a privately held oncology company, in a stock for stock merger valued at \$20 million. SM stockholders can also receive a maximum of \$15 million in additional consideration (payable in cash or stock at our election, subject to certain Nasdaq limitations on issuance of stock) upon the achievement of certain FDA regulatory milestones. Under the agreement, SM became Systems Medicine LLC and operates as a wholly owned subsidiary of CTI. SM holds worldwide rights to use, develop, import and export brostallicin, a synthetic DNA minor groove binding agent that has demonstrated anti-tumor activity and a favorable safety profile in clinical trials in which more than 200 patients have been treated to date. SM currently uses a genomic-based platform to guide development of brostallicin; we expect to use that platform to guide development of our licensed oncology products in the future. SM also has a strategic affiliation with the Translational Genomics Research Institute, or TGen, and has the ability to use TGen's extensive genomic platform and high throughput capabilities to target a cancer drug's context-of-vulnerability, which is intended to guide clinical trials toward patient populations where the highest likelihood of success should be observed, thereby potentially lowering risk and shortening time to market.

We are developing OPAXIO (paclitaxel poliglumex), which we have previously referred to as XYOTAX, for the treatment of non-small cell lung cancer, or NSCLC, and ovarian cancer. As announced in March and May 2005, our STELLAR 2, 3 and 4 phase III clinical studies for OPAXIO did not meet their primary endpoints of superior overall survival. However, we believe that the reduction in toxicities coupled with superior convenience and less medical resource utilization demonstrated in the STELLAR 4 phase III clinical trial merits consideration for approval as single agent therapy for patients with advanced NSCLC who have poor performance status, or PS2. Currently there are no drugs approved for patients with PS2 NSCLC. On March 4, 2008, we submitted a Marketing Authorization Application, or MAA, to the European Medicines Agency, or EMEA, for first-line treatment of patients with advanced NSCLC who are PS2, based on a non-inferior survival and improved side effect profile which we believe was demonstrated in our STELLAR clinical trials. The application is based on a positive opinion we received from the EMEA's Scientific Advice Working Party, or SAWP; the EMEA agreed that switching the primary endpoint from superiority to noninferiority is feasible if the retrospective justification provided in the marketing application is adequate. The discussions with the SAWP focused on using the STELLAR 4 study as primary evidence of non-inferiority and the STELLAR 3 study as supportive of the MAA. The application was accepted for review in April 2008 and the MAA has now entered the marketing approval review process, which generally takes 15 to 18 months.

Table of Contents

We are also developing OPAXIO for women with pre-menopausal levels of estrogen who have advanced NSCLC with normal or poor performance status. The basis for this clinical study was in part related to a pooled analysis of STELLAR 3 and 4 phase III trials for treatment of first-line NSCLC patients who have PS2 which we believe demonstrates a statistically significant survival advantage among women receiving OPAXIO when compared to women or men receiving standard chemotherapy. A survival advantage for women over men was also demonstrated in a first-line phase II clinical trial of OPAXIO and carboplatin, known as the PGT202 trial, supporting the potential benefit observed in the STELLAR 3 and 4 trials. In December 2005, we initiated a phase III clinical trial, known as the PIONEER, or PGT305, study, for OPAXIO as first-line monotherapy in PS2 women with NSCLC. In December 2006, we agreed with the recommendation of the Data Safety Monitoring Board to close the PIONEER lung cancer clinical trial due, in part, to the diminishing utility of the PIONEER trial given our plans to submit a new protocol to the FDA. In early 2007, we submitted two new protocols under a Special Protocol Assessment, or SPA, to the FDA. The new trials, known as PGT306 and PGT307, focus exclusively on NSCLC in women with pre-menopausal estrogen levels, the subset of patients where OPAXIO demonstrated the greatest potential survival advantage in the STELLAR trials. We believe the lack of safe and effective treatment for women with advanced first-line NSCLC who have pre-menopausal estrogen levels represents an unmet medical need. We initiated the PGT307 trial in September 2007. Although the FDA has established the requirement that two adequate and well-controlled pivotal studies demonstrating a statistically significant improvement in overall survival will be required for approval of OPAXIO in the NSCLC setting, we believe that compelling results from a single trial, PGT307, along with supporting evidence from prior clinical trials, may enable us to submit a new drug application, or NDA, in the United States. In early 2008, we limited enrollment on the PGT307 study to U.S. sites only, until either approval of the MAA by the EMEA or until positive results from the GOG212 trial of OPAXIO for first-line maintenance therapy in ovarian cancer, discussed below, are reported.

We are also developing OPAXIO as potential maintenance therapy for women with advanced stage ovarian cancer who achieve a complete remission following first-line therapy with paclitaxel and carboplatin. This study, the GOG212 trial, is under the control of the Gynecologic Oncology Group and is expected to enroll 1,100 patients by early 2012. A potential interim analysis, based on the number of events in the database, is planned for late 2009 and, if successful, could lead to an NDA filing in 2010.

We are developing pixantrone, a novel anthracycline derivative, for the treatment of NHL. An interim analysis of our ongoing phase III study of pixantrone, known as the EXTEND or PIX301 study, was performed by the independent Data Monitoring Committee in the third quarter of 2006. Based on their review, the study continued. In September 2007, we announced that we had reduced the enrollment target and decided to conduct a full analysis of the EXTEND trial, instead of an interim analysis as previously planned. In March 2008, we completed enrollment of approximately 140 patients in the EXTEND trial, 101 of which are currently evaluable according to Histological Intent to Treat, or HITT, criteria. An analysis of the data is expected in the second half of 2008 and, if final study results are adequate, we could submit an NDA with the FDA in early 2009 with potential approval in the second half of 2009. The FDA agreed that randomized safety data from the RAPID study (CHOP-R vs. CPOP-R) could be used to support the EXTEND results in an NDA submission for pixantrone. The RAPID, or PIX203, study is a phase II study in which pixantrone is substituted for doxorubicin in the CHOP-R regimen compared to the standard CHOP-R regimen in patients with previously untreated diffuse large B-cell lymphoma. An interim analysis of the RAPID study was reported in July 2007. The interim analysis of the study showed that to date a majority of patients on both arms of the study achieved a major objective anti-tumor response (complete response or partial response). Patients on the pixantrone arm of the study had clinically significant reductions in the incidence of severe heart damage, infections, and thrombocytopenia (a reduction in platelets in the blood) as well as significant reduction in febrile neutropenia. In early 2008, we closed enrollment on the RAPID trial because we had adequate sample size to demonstrate differences in cardiac events and other clinically relevant side effects between pixantrone and doxorubicin.

We also launched a phase III trial of pixantrone in indolent NHL, the PIX303 trial, in September 2007, which was designed to evaluate the combination of fludarabine, pixantrone and rituximab versus fludarabine and rituximab in patients who have received at least one prior treatment for relapsed or refractory indolent NHL. We closed the PIX303 trial in early 2008 based on, among other considerations, our plans to refocus the Company's resources on obtaining pixantrone approval based on the EXTEND phase III trial before making additional substantive investments in alternative indications for pixantrone as well as the changing competitive landscape in second line follicular NHL. In May 2007, we received fast track designation from the FDA for pixantrone for the treatment of relapsed or refractory indolent NHL.

We are developing brostallicin, which is a small molecule, anti-cancer drug with a novel, unique mechanism of action and composition of matter patent coverage, through our wholly owned subsidiary, SM. Data in more than 200 patients treated with brostallicin in phase I/II clinical trials reveal evidence of activity in patients with refractory cancer and patient/physician-friendly dosage and administration. A phase II study of brostallicin in relapsed/refractory soft tissue sarcoma met its pre-defined activity and safety hurdles and resulted in a first-line phase II study that is currently being conducted by the European

Table of Contents

Organization for Research and Treatment of Cancer, or EORTC. Planned enrollment for this study was completed in August 2008 and data from that trial is expected to be available as early as early 2009. Additionally, we initiated a phase II myxoid liposarcoma trial in 2007. Brostallicin also has demonstrated synergy with new targeted agents as well as established treatments in preclinical trials; consequently, we have begun a multi-arm combination study with brostallicin and other agents, including Avastin. This study is being conducted in conjunction with U.S. Oncology at multiple sites in the United States with the first combinations expected to be completed in 2008.

We are developing Zevalin for additional indications. Zevalin is a form of cancer therapy called radioimmunotherapy and is indicated for the treatment of patients with relapsed or refractory low-grade, follicular, or B-cell NHL, including patients with Rituximab-refractory follicular NHL. It was approved by the FDA in February 2002 as the first radioimmunotherapeutic agent for the treatment of NHL. At the American Society of Hematology meeting in December 2007, Bayer published the results of their FIT trial for Zevalin. In April 2008, based on these data, Bayer received approval from the European Medicines Commission for use of Zevalin in consolidation therapy after remission induction in previously untreated patients with follicular lymphoma. We were able to obtain access to the data from the FIT trial under the Access Agreement that we entered into with Bayer in June 2008. Under the terms of the agreement, we made an initial payment of \$2.0 million and beginning January 1, 2009, we will also pay royalties on net product sales until an aggregate of \$11.5 million in royalties has been paid. We currently have a meeting scheduled in September 2008 with the FDA to discuss the potential filing of a supplemental biologics license application, or sBLA, for use of Zevalin in consolidation therapy of first remission in advanced stage follicular NHL. If the data from the FIT trial results is suitable for FDA filing, we plan to submit an sBLA for Zevalin consolidation of first remission in advanced stage follicular lymphoma in the second half of 2008. We also intend to file an sBLA to remove the requirement for a biodistribution scan from the Zevalin label in 2008.

We are currently focusing our efforts on Zevalin, OPAXIO, pixantrone, and brostallicin.

CTI and XYOTAX are our proprietary marks, and we also own the U.S. rights to the mark Zevalin. All other product names, trademarks and trade names referred to in this Form 10-K are the property of their respective owners.

As of June 30, 2008, we had incurred aggregate net losses of approximately \$1.2 billion since inception. We expect to continue to incur additional operating losses for at least the next couple of years.

Recent Developments

Debt Restructuring

We have a substantial amount of debt outstanding, and our annual interest expense with respect to our debt is significant. In December 2007 and February 2008, we completed partial restructurings of our convertible notes due in 2008, which retired a portion of such debt, extended the maturity date on certain such debt to 2011 and involved the issuance of additional shares of common stock to holders of the exchanged notes. The remaining approximately \$10.7 million of our 2008 convertible notes outstanding was paid at the notes' maturity on June 15, 2008. We have issued additional convertible notes in 2008 in connection with the financings described below with maturity dates in 2011 and 2012.

Restructuring of Resources

On January 30, 2008, we announced a plan to refocus our resources on late-stage and marketed products, which involves increasing sales of Zevalin in the United States and preparing the marketing applications for OPAXIO and pixantrone described above, while advancing the clinical development of brostallicin. This plan was intended to reduce operating expenses and projected net cash operating expenses in 2008. As part of these refocusing efforts, approximately 30 of our U.S. employees were terminated. We continue to explore ways to further reduce our operating expenses for the remainder of 2008 and for 2009.

Lack of Liquidity

As of June 30, 2008 we had cash and cash equivalents, securities available-for-sale and interest receivable of approximately \$12.4 million, and total current liabilities of \$50.2 million. Our current cash and cash equivalents, securities available-for-sale and interest receivable continue to be significantly less than our total current liabilities. Currently, we do not have sufficient cash to fund our operations past September and we need to raise additional capital in order to meet our operational needs. We will need to continue to raise additional capital to fund our operations in 2008 and beyond. See Risk Factors.

In addition, our auditors, Stonefield Josephson, have expressed substantial doubt about our ability to continue to operate as a going concern in their audit opinion dated March 26, 2008 in connection with our audited financial statements for the year ended December 31, 2007. If we are not successful in raising substantial additional financing and/or capital, we will have insufficient funds to continue operations past September.

Table of Contents**Recent Financings**

In January 2008, we sold 80,000 shares of our common stock to Société Générale under the Step-Up Equity Financing Agreement we have in place with Société Générale. The 80,000 shares of common stock were sold at a price of \$10.70, or approximately \$15.90, per share, which raised approximately \$1.3 million (\$0.9 million) in aggregate gross proceeds. In June 2008, we received notice from counsel for Société Générale asserting that the Step-Up Equity Financing Agreement was terminated by Société Générale effective June 6, 2008 on the basis that the going concern statement included in our Annual Report on Form 10-K, as well as a notice we received from Nasdaq on April 16, 2008 regarding our failure to comply with the minimum price requirements under the listing requirements of the Nasdaq Global Market, constitute a material adverse change under the Financing Agreement, permitting Société Générale to terminate the Financing Agreement. We disagree with Société Générale's allegations that such events permit Société Générale to terminate the Financing Agreement and are reviewing our options to cause Société Générale to continue to provide financing under the Financing Agreement, although there can be no assurance that Société Générale will do so.

In March 2008, we sold \$51.7 million in 9% senior convertible notes due March 2012; of these gross proceeds, approximately \$16.2 million was used to make payments to holders of our preferred stock to induce them to convert their shares of preferred stock into common stock and an additional \$13.9 million was placed in an escrow account to be used to make interest payments and make-whole payments on those notes for 12 months following the closing of that offering.

In April 2008, we sold to a single institutional investor \$36.0 million in principal amount of our 13.5% senior convertible notes due 2014, 9,000 shares of our Series E 13.5% preferred stock, warrants to purchase up to 2,848,101 shares of our common stock, at an exercise price of \$9.50 per share, and a warrant to purchase up to \$67.5 million in additional debt and warrant securities at an exercise price of \$1,000 per unit, which we refer to as the B Warrant. Pursuant to the terms of the transaction documents, in June 2008 the investor exchanged all 9,000 shares of Series E 13.5% preferred stock along with accrued and unpaid dividends into an additional \$9.118 million principal amount of our 13.5% senior convertible notes. In July 2008, we entered into an amendment to the purchase agreement and B Warrant, whereby we agreed to repurchase \$17,518,000 principal amount of the 13.5% senior convertible notes held by such holder, and the holder agreed to surrender for cancellation the 1,101,266 warrants associated with such repurchased notes. Furthermore, the exercise price of the remaining warrants was reduced from \$9.50 to \$7.90 per share.

The 13.5% senior convertible notes bear an annual interest rate of 13.5% and are convertible into our common stock at a conversion price of \$7.90. Upon conversion of the notes or upon exercise by the holder of a one-time right to require early redemption of the notes (which may be exercised in May 2011), we shall be required to pay a make-whole amount to the holders of the notes so converted or redeemed equal to \$810 per \$1,000 principal amount of the converted or redeemed notes less any interest paid on such notes prior to the conversion or redemption date. The maximum potential make-whole amount is equal to the total amount of interest due over the life of the notes. We placed an amount adequate to pay the make-whole payment on the notes in escrow to be held for a period of one year. Pursuant to the terms of the escrow agreement, the funds may be used only to make interest payments or to pay the make-whole amount upon conversion of the notes. At the end of one year, all funds remaining in escrow will be released to us.

The total purchase price paid in April 2008 by the investor for these securities was \$64.6 million. Of this amount, \$5.3 million was credited to the investor upon surrender of 9% senior convertible notes due 2012 and related warrants that were previously purchased by the investor, and \$36.5 million was deposited into the escrow account. The remaining proceeds to the Company, before fees and expenses, was \$22.9 million.

In May and June 2008, the investor converted an aggregate of \$27,600,000 principal amount of the 13.5% senior convertible notes into shares of our common stock.

In June 2008, the B Warrant was amended and the investor then partially exercised the B Warrant; upon such exercise of the B Warrant we issued \$23.0 million principal amount of our 15% senior convertible notes due 2011 and warrants to purchase up to 1,455,696 shares of our common stock, at an exercise price of \$9.50 per share, in exchange for payment by the investor of \$23.0 million. The notes bear an annual interest rate of 15% and are convertible into common stock at a conversion price of \$7.90 per share. Upon conversion of the notes we shall be required to pay a make-whole amount to the holders of the notes so converted equal to \$450 per \$1,000 principal amount of the converted notes less any interest paid on such notes prior to the conversion date. The maximum potential make-whole amount is equal to the total amount of interest due over the life of the notes. We placed an amount adequate to pay the make-whole payment on the notes in escrow to be held for a period of one year. Pursuant to the terms of the escrow agreement, the funds may be used only to pay interest payments or to pay the make-whole amount upon conversion of the notes. At the end of one year, all funds remaining in escrow will be released to us. Of the \$23.0 million purchase price, \$10.35 million was deposited into the escrow account. The remaining proceeds to the Company, before fees and expenses, was \$12.65 million.

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

In July 2008, the B Warrant was further amended and the investor agreed to exercise 22,250 of the remaining 44,500 units of the B Warrant by July 25, 2008 and to exercise the remaining 22,250 units by August 25, 2008. In connection with each respective exercise, we agreed to repurchase \$8.759 million of our 13.5% convertible senior notes due 2014 along with the cancellation of related common stock purchase warrants. Furthermore, subject to certain regulatory filings with the Nasdaq Stock Market, the B Warrant may be further amended to provide for an additional 44,500 units, exercisable upon mutual

Table of Contents

agreement of us and the investor. Upon the first exercise of the further amended B Warrant, we issued \$22.25 million principal amount of our 18.33% senior convertible notes due 2011 and warrants to purchase 1,408,228 shares of our common stock, at an exercise price of \$7.90 per share, in exchange for payment by the investor of \$22.25 million. The notes will bear an annual interest rate of 18.33% and are convertible into common stock at a conversion price of \$7.90 per share. Upon conversion of the notes we shall be required to pay a make-whole amount to the holders of the notes so converted equal to \$549.90 per \$1,000 principal amount of the converted notes less any interest paid on such notes prior to the conversion date. The maximum potential make-whole amount is equal to the total amount of interest due over the life of the notes. We have placed an amount adequate to pay the make-whole payment on the notes in escrow to be held for a period of one year. Pursuant to the terms of the escrow agreement, the funds may be used only to pay interest payments or to pay the make-whole amount upon conversion of the notes. At the end of one year, all funds remaining in escrow will be released to us. Of the \$22.25 million purchase price, \$12.24 million was deposited into the escrow account and we repurchased \$8.759 million principal amount of the investor's 13.5% convertible senior notes and associated common stock warrants. Of the make-whole payments related to these repurchased notes, \$3.26 million was released to us from escrow and the remainder was released to the investor. The remaining proceeds to the Company, before fees and expenses, was \$4.51 million.

The August 2008 \$22.25 million exercise of the further amended B Warrant was the same, as to amount and all other details and all related transactions, as the above-described July 2008 \$22.25 million exercise of the further amended B Warrant.

Also in July 2008, we issued to a single institutional investor a warrant to purchase up to the lesser of \$12,000,000 in shares of our common stock or the number of shares of common stock equal to 19.9% of our outstanding common stock on July 29, 2008, in order to effectuate an equity line of credit relationship. We have the right to raise cash under the agreement for shares of our common stock on a periodic basis. Through September 4, 2008, we have issued 1,544,946 shares of common stock under this equity line of credit, with gross proceeds of \$4.0 million. The number and price per share of each issuance are determined by a contractual formula based on the trading volume and a discount to the volume weighted average price of our common stock, as reported by the MTA, over the preceding three trading days.

Recent Legal Proceedings

Based on language (the "Disputed Language") contained in the Articles of Amendment to our Articles of Incorporation (the "Amendments") filed in connection with the issuance of our Series A, Series B and Series C Convertible Preferred Stock (the "Preferred Stock"), certain holders thereof (the "Shareholders") asserted a right to consent (or not) to the transactions contemplated by the Exchange Agreements entered into by us and certain holders of our then existing convertible debt on December 12, 2007 (the "Exchange"). We are of the view that inclusion of the Disputed Language in the Amendments constitutes a scrivener's error without legal force or effect, and filed Articles of Correction with the Secretary of State of Washington in accordance with Section 23B.01.240 of the Revised Code of Washington. On January 2, 2008, Tang Capital Partners LP ("Tang") filed a civil action in the United States District Court for the Southern District of New York in which Tang alleged that we breached a Securities Purchase Agreement, executed on or about April 16, 2007 in connection with the issuance of Series B Preferred Stock. Tang alleges that our filing of Articles of Correction to the Articles of Amendment to the Amended and Restated Articles of Incorporation on or around December 11, 2007, materially and adversely altered the powers, preferences or rights conferred through its Securities Purchase Agreement, thereby constituting a Triggering Event, and as a result, Tang is entitled to redemption of its Preferred Stock in consideration for 130% of its Stated Value, plus other available relief, if any. Another holder of Preferred Stock, Enable Capital Management LLC ("Enable"), filed a lawsuit on January 23, 2008 in the Supreme Court of the State of New York with similar claims to the Tang action. On March 21, 2008, Enable filed an amended complaint, asserting an additional claim against us for breach of contract and breach of the covenant of good faith and fair dealing. Enable alleges that on or about March 4, 2008, we committed a further breach of our obligations by offering and/or paying consideration to certain holders of our preferred stock to induce those holders to convert their preferred stock into common stock without making the same offer to Enable. Additional holders of our preferred stock may assert claims similar to those asserted by Tang and Enable. On May 5, 2008, RHP Master Fund, Ltd. ("RHP"), a holder of our Series A Preferred Stock filed suit in the United States District Court for the Southern District of New York against us and certain officers and directors alleging breach of contract and violation of Washington Business Corporation Act by us and breach of fiduciary duty by the officer and director defendants. RHP alleges claims similar to those raised in Enable's amended complaint, namely that we breached our obligations to RHP by offering and paying consideration to certain holders of our Series A Preferred Stock to induce those holders to convert their preferred stock into common stock as part of the March 4, 2008 transaction without making the same offer to RHP. Following the filing of a motion to dismiss the complaint by the officer and director defendants, RHP filed an amended complaint on July 31, 2008. The amended complaint asserts the same causes of action as the original. We dispute each of the claims asserted against it and intend to defend ourselves vigorously. At this time, we are not able to make a determination whether the likelihood of an unfavorable outcome is probable or remote.

On January 22, 2007, we filed a complaint in King County Washington Superior Court against The Lash Group, Inc. and Documedics Acquisition Co., Inc., our former third party reimbursement expert for TRISENOX, seeking recovery of damages, including losses incurred by the Company in connection with our USAO investigation, defense and settlement of claims by the

Table of Contents

government concerning Medicare reimbursement for TRISENOX. On February 28, 2007, defendant The Lash Group, Inc. removed the case to federal court in the Western District of Washington. On June 19, 2008, the trial judge dismissed our claims against The Lash Group. The parties have completed production of documents and fact witness depositions, and served expert reports. On June 19, 2008, the trial court entered judgment dismissing our claims for indemnification against The Lash Group on the legal ground that all False Claims Act (FCA) defendants are legally barred from filing such claims, notwithstanding that there has been no finding that the defendant engaged in any wrongdoing, and notwithstanding that the party sued may have been directly responsible for the conduct at issue in the FCA as a result of its erroneous advice, negligent services, and its own false and misleading statements about reimbursement to the government and physicians. We disagree with the Court's legal conclusion that negligent consultants may not be sued for indemnification pursuant to the express language of their contracts, and on July 19, 2008, we filed a Notice of Appeal with the Ninth Circuit Court of Appeals. We will seek a ruling that no law prohibits a defendant who settles FCA claims with the government from pursuing meritorious claims for contractual indemnification from responsible consultants. If successful, we intend to return to the United States District Court for trial, and seek more than \$20 million in damages for liabilities and business losses that we contend were caused by Lash's negligent or reckless advice and its misleading communications concerning Medicare's obligation to reimburse doctors for TRISENOX. There is no guarantee that we will prevail in its appeal or at trial.

In April 2007, we entered into a settlement agreement with the United States Attorney's Office, or USAO, for the Western District of Washington arising out of their investigation into certain of our prior marketing practices relating to TRISENOX® (arsenic trioxide). We made the settlement payment of \$10.6 million in April 2007. The settlement agreement did not address separate claims brought against us by the private party plaintiff. The private party plaintiff filed a petition for attorney's fees and costs in the approximate amount of \$1.2 million on July 31, 2008. We intend to oppose this petition. There is no guarantee that we will partially or wholly prevail in opposing the petition for fees. At this time, no estimate of loss can be made.

Other Information

We were incorporated in Washington in 1991. Our principal executive offices are located at 501 Elliott Avenue West, Suite 400, Seattle, Washington 98119. Our telephone number is (206) 282-7100. We make available on our website important information such as press releases, presentations from investor and medical conferences, as well as other information about our company. The address for our website is <http://www.celltherapeutics.com> and the address for the investor relations page of our website is <http://www.celltherapeutics.com/investors>. The contents of our website are not part of this prospectus, and the reference to our website does not constitute incorporation by reference into this prospectus of the information contained at that site.

Table of Contents

The Securities We May Offer

We may offer shares of our common stock, preferred stock and various series of debt securities and warrants to purchase such securities with a total value of up to \$150,000,000 from time to time under this prospectus at prices and on terms to be determined by market conditions at the time of offering. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

designation or classification;

aggregate principal amount or aggregate offering price;

maturity;

original issue discount, if any;

rates and times of payment of interest, dividends or other payments, if any;

redemption, conversion, exchange, settlement or sinking fund terms, if any;

conversion, exchange or settlement prices or rates, if any, and, if applicable, any provisions for changes to or adjustments in the conversion, exchange or settlement prices or rates and in the securities or other property receivable upon conversion, exchange or settlement;

ranking;

restrictive covenants, if any;

voting or other rights, if any; and

important federal income tax considerations.

The prospectus supplement also may add, update or change information contained in this prospectus or in documents we have incorporated by reference into this prospectus.

This prospectus may not be used to consummate sales of offered securities unless accompanied by a prospectus supplement.

We may sell the securities directly to or through underwriters, dealers or agents. We, and our underwriters or agents, reserve the right to accept or reject all or part of any proposed purchase of securities. If we do offer securities through underwriters or agents, we will include in the applicable prospectus supplement:

the names of those underwriters or agents;

applicable fees, discounts and commissions to be paid to them;

details regarding over-allotment options, if any; and

the net proceeds to us.

Common Stock. We may issue shares of our common stock from time to time. Each holder of common stock is entitled to one vote for each share held on all other 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 a liquidation, dissolution or winding up of the company, 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. 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.

Preferred Stock. We may issue shares of our preferred stock from time to time. The board of directors has the authority, without action by the shareholders, to designate and issue up to 10,000,000 shares of 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. We issued 20,000 shares of our Series A 3% convertible preferred stock in February 2007, 37,200 shares of our Series B 3% convertible preferred stock in April 2007, 20,250 shares of our Series C 3% convertible preferred stock in July 2007, and 6,500 shares of our Series D 7% convertible preferred stock in December 2007. As of close of business on September 2, 2008, 550

Table of Contents

shares of our Series A 3% convertible preferred were outstanding, 5,218 shares of our Series B 3% convertible preferred stock were outstanding, 6,284 shares of our Series C 3% convertible preferred stock were outstanding and 1,000 shares of our Series D 7% convertible preferred stock were outstanding. All of our Series E 13.5% preferred stock was exchanged for convertible debt in June 2008 at the election of the holder of such preferred stock pursuant to our amended and restated articles of incorporation.

We will fix the rights, preferences and privileges of the preferred stock of each series that we sell under this prospectus and applicable prospectus supplements in the certificate of designation relating to that series. We will incorporate by reference into the registration statement of which this prospectus is a part the form of any certificate of designation that describes the terms of the series of preferred stock that we are offering before the issuance of the related series of preferred stock. We urge you to read the prospectus supplements related to the series of preferred stock being offered, as well as the complete certificate of designation that contains the terms of the applicable series of preferred stock.

Debt Securities. We may issue debt securities from time to time, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. The senior debt securities will rank equally with any other unsubordinated debt that we may have and may be secured or unsecured. The subordinated debt securities will be subordinate and junior in right of payment, to the extent and in the manner described in the instrument governing the debt, to all or some portion of our indebtedness. Any convertible debt securities that we issue will be convertible into or exchangeable for our common stock or other securities of ours. Conversion may be mandatory or at your option and would be at prescribed conversion rates.

The debt securities will be issued under one or more documents called indentures, which are contracts between us and a trustee for the holders of the debt securities. In this prospectus, we have summarized certain general features of the debt securities. We urge you, however, to read the prospectus supplements related to the series of debt securities being offered, as well as the complete indentures that contain the terms of the debt securities. Indentures have been filed as exhibits to the registration statement of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of debt securities being offered will be incorporated by reference into the registration statement of which this prospectus is a part from reports we file with the Securities and Exchange Commission.

Warrants. We may issue warrants for the purchase of common stock, preferred stock and/or debt securities in one or more series, from time to time. We may issue warrants independently or together with common stock, preferred stock and/or debt securities, and the warrants may be attached to or separate from those securities.

The warrants will be evidenced by a warrant certificate issued under one or more warrant agreements, which are contracts between us and an agent for the holders of the warrants. In this prospectus, we have summarized certain general features of the warrants. We urge you, however, to read the prospectus supplements related to the series of warrants being offered, as well as the complete warrant agreements and warrant certificates that contain the terms of the warrants. Forms of warrant agreements and warrants certificates relating to warrants for the purchase of common stock, preferred stock and debt securities have been filed as exhibits to the registration statement of which this prospectus is a part, and complete warrant agreements and warrant certificates containing the terms of warrants being offered will be incorporated by reference into the registration statement of which this prospectus is a part from reports we file with the Securities and Exchange Commission.

Financial Ratios

Our ratio of earnings to fixed charges for each of the periods indicated is as follows:

	2003	Year Ended December 31,				Six Months Ended June 30,	
		2004	2005	2006	2007	2007	2008
Ratio of earnings to fixed charges(1)							

- (1) For the purposes of computing ratio of earnings to fixed charges, earnings consist of income (loss) before provision for income taxes plus fixed charges. Fixed charges consist of interest charges and that portion of rental payments under operating leases we believe to be representative of interest. Earnings for the years ended December 31, 2003, 2004, 2005, 2006 and 2007 and the six months ended June 30, 2007 and 2008, were insufficient to cover fixed charges by \$130,031, \$252,298, \$102,505, \$135,819, \$148,305, \$56,640 and \$113,920 (in thousands) respectively. For this reason, no ratios are provided for these periods.

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

In addition to the other information contained or incorporated by reference in this prospectus, you should carefully consider the risk factors contained in and incorporated by reference into this prospectus when evaluating an investment in our common stock. This prospectus and the documents incorporated by reference into this prospectus include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (Securities Act), and Section 21E of the Securities Exchange Act of 1934, as amended (Exchange Act). All statements other than statements of historical fact are forward-looking statements for purposes of these provisions, including:

any projections of revenues, operating expenses or other financial items;

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

any statements concerning proposed new products or services;

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

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

any statements concerning proposed new products or services, 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 the use of terminology such as may , will , expects , plans , anticipates , estimates , potential , or continue or the negative thereof or other comparable terminology. 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 these 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 set forth in this prospectus. 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.

RISK FACTORS

You should carefully consider the risks described below and other information in this prospectus and in the documents incorporated by reference into this prospectus supplement before deciding to invest in 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. If any of the following risks actually occur, they could materially adversely affect our business, financial condition, operating results or prospects. In that case, the trading price of our securities could decline.

Factors Affecting Our Operating Results and Financial Condition

We expect to continue to incur net losses, and we might never achieve profitability.

We were incorporated in 1991 and have incurred a net operating loss every year. As of June 30, 2008, we had an accumulated deficit of approximately \$1.2 billion. We are pursuing regulatory approval for OPAXIO, pixantrone and brostallicin and plan to seek regulatory approval for the expansion of approved uses of Zevalin. We will need to conduct research, development, testing and regulatory compliance activities and

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

undertake manufacturing and drug supply activities, expenses which, together with projected general and administrative expenses, will result in operating losses for the foreseeable future. We may never become profitable, even if we are able to commercialize products currently in development or otherwise.

Our debt and operating expenses exceed our net revenues.

We have a substantial amount of debt outstanding, and our annual interest expense with respect to our debt is significant. We have a single drug we are marketing, Zevalin, and the net proceeds of sales of this drug are not sufficient to pay our debt and operating expenses on a current basis. We do not currently project that net revenues from sales of any of our products will be sufficient to cover our existing debt and operating expenses within the next twelve months. We need to raise capital to continue to fund our operations as our current cash resources would not fund us past September. Unless we raise substantial additional capital, we will not be able to pay all of our operating expenses or repay our debt or the interest, liquidated damages or other payments that may become due with respect to our debt.

Table of Contents

We need to raise additional funds and expect that we will need to continue to raise funds in the future, and funds may not be available on acceptable terms, or at all.

We have substantial operating expenses associated with the development of our product candidates and as of June 30, 2008 we had cash and cash equivalents, securities available-for-sale and interest receivable of approximately \$12.4 million, and total current liabilities of approximately \$50.2 million. We also have a substantial amount of debt outstanding: as of June 30, 2008, we had an aggregate principal balance of approximately \$164.7 million in convertible notes, which does not take into account \$44.5 million in aggregate principal balance of 18.33% and Series B 18.33% convertible senior notes issued in July/August 2008, conversions of \$28.3 million of these notes, and the repurchase of approximately \$17.5 million in aggregate principal balance of our outstanding 13.5% convertible senior notes. We have also implemented an ongoing equity line of credit that provides for the sale of up to an aggregate of \$12.0 million (or 19.9% of our outstanding common stock on the date the agreement was executed, if sooner) which provides for multiple closings based on the trading volume of our common stock on the MTA and which may be suspended from time to time. As of September 2, 2008, we have received gross proceeds of approximately \$4.0 million under that equity line of credit. We expect that our existing cash and cash equivalents, securities available-for-sale and interest receivable, including proceeds received from our offerings through August 28, 2008, will not provide sufficient working capital to fund our presently anticipated operations past September, and we therefore need to raise additional capital.

We may seek to raise such capital through public or private equity financings, partnerships, joint ventures, dispositions of assets, debt financings or restructurings, bank borrowings or other sources. However, additional funding may not be available on favorable terms or at all. 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 OPAXIO, pixantrone, brostallicin, expanded uses of Zevalin and other products we may be developing. 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 U.S., which may increase our costs and adversely affect our ability to obtain financing. To the extent that additional capital is raised through the sale of equity, or securities convertible into equity, shareholders may experience dilution of their proportionate ownership of us.

We have received a going concern opinion on our consolidated financial statements

Due to our need to raise additional financing to fund our operations and satisfy obligations as they become due, our independent registered public accounting firm has included an explanatory paragraph in their report on our December 31, 2007 consolidated financial statements regarding their substantial doubt as to our ability to continue as a going concern. This may have a negative impact on the trading price of our common stock and we may have a more difficult time obtaining necessary financing.

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

Our stock is traded on the MTA stock market in Milan, Italy and we are required to also comply with the rules and regulations of the Commissione Nazionale per le Società e la Borsa, or 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 agencies regulate companies listed on Italy's public markets. Conducting our operations in a manner that complies with all 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 applicable regulatory regimes. 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 in any twelve-month period that exceeds 10% of the number of shares of common stock outstanding at the beginning of that period. We have attempted to publish a listing prospectus in Italy to cover our general offerings for the past year. We filed our initial listing prospectus with CONSOB in April 2007 and worked with CONSOB to meet their requirements to publish that listing prospectus for the remainder of 2007. We were finally able to publish a listing prospectus in January 2008, however, that listing prospectus was limited to shares to be issued to Société Générale under the Step-Up Equity Financing Agreement we entered into with Société Générale in 2006. We continue to pursue the possibility of publishing a listing prospectus to cover other financing efforts under Italian law, however, at the present time we have not been successful in getting approval from the Italian regulators for such a listing prospectus. As a result, we are required to raise money using alternative forms of securities; for example, we use convertible preferred stock and convertible debt in lieu of common stock as convertible preferred stock and convertible debt are not subject to the 10% limitation imposed by Italian law.

Table of Contents

We are subject to additional legal duties, additional operational challenges and additional political and economic risks related to our operations in Italy.

A portion of our business is based in Italy. We are subject to duties and risks arising from doing business in Italy, such as:

Italian employment law, including collective bargaining agreements negotiated at the national level and over which we have no control;

European data protection regulations, under which we will be unable to send private personal data, including many employment records and some clinical trial data, from our Italian offices to our U.S. offices until our U.S. offices self-certify their adherence to the safe harbor framework established by the U. S. Department of Commerce in consultation with the European Commission;

tariffs, customs, duties and other trade barriers; and

capital controls, terrorism and other political risks.

We are also subject to the following operational challenges, among others, as a result of having a portion of our business and operations based in Italy:

effectively pursuing the clinical development and regulatory approvals of all product candidates;

successfully commercializing products under development;

coordinating research and development activities to enhance introduction of new products and technologies;

coalescing the Italian business culture with our own and maintaining employee morale; and

maintaining appropriate uniform standards, controls, procedures and policies relating to financial reporting and employment related matters, and the conduct of development activities that comply with both U.S. and Italian laws and regulations.

We may not succeed in addressing these challenges, risks and duties, any of which may be exacerbated by the geographic separation of our operations in the United States and in Italy. These risks related to doing business in Italy could harm the results of our operations.

Our operations in Italy make us subject to increased risk regarding currency exchange rate fluctuations.

As a result of operations in Italy, we are exposed to risks associated with foreign currency transactions insofar as we use U.S. dollars to make contract payments denominated in euros or vice versa. As the net positions of our foreign currency transactions might fluctuate, our earnings might be negatively affected. In addition, we are exposed to risks associated with the translation of euro-denominated financial results and accounts into U.S. dollars. Our reporting currency will remain as the U.S. dollar; however, a portion of our consolidated financial obligations will arise in euros. In addition, the carrying value of some of our assets and liabilities will be affected by fluctuations in the value of the U.S. dollar as compared to the euro. Changes in the value of the U.S. dollar as compared to the euro might have an adverse effect on our reported results of operations and financial condition.

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

In 2006, we identified material weaknesses in our internal control over financial reporting and we received an adverse opinion on internal control over financial reporting from our independent registered public accounting firm in connection with their annual internal control attestation process for fiscal year 2006.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis. We identified that as of December 31, 2006 we had material weaknesses in our European branch relative to the effectiveness of our internal control over financial reporting which were remedied during 2007.

The existence of a material weakness is an indication that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. If we fail to maintain an effective system of internal controls, we may not be able to report our financial results accurately, which may deprive management of important financial information needed to manage the Company effectively, may cause investors to lose confidence in our reported financial information and may have an adverse effect on the trading price of our common stock.

Table of Contents

We may not be successful in transferring certain of our operations to a new entity, which may mean that certain expenses incurred in connection with the proposed spin-off would not be reimbursed.

We have announced an intention to spin out certain of our operations into a new entity to be funded in part by outside investors, and have incurred legal fees and other costs in connection with that spin out. While we expect most of those fees would be repaid upon the funding of the new entity and the completion of the transfer of our related operations, there can be no assurance that the new entity will be funded or that we can complete the transfer of the related operations. If the new entity is not formed and the related operations are not transferred to that new entity, we will be required to pay all expenses we have incurred in connection with the spin out without reimbursement and may be required to continue to support such business operations in full.

If we are not able to successfully integrate recent and future acquisitions, our management's attention could be diverted, and efforts to integrate future acquisitions could consume significant resources.

The acquisitions of SM and of Zevalin, or any other future acquisition that we may undertake, involve numerous risks related to the integration of the acquired asset or entity into the Company after the acquisition is completed. These risks include the following:

difficulties in integrating the operations, technologies and products of the acquired companies;

difficulties in implementing internal controls over financial reporting;

diversion of management's attention from normal daily operations of the business;

inability to maintain the key business relationships and the reputations of acquired businesses;

entry into markets in which we have limited or no prior experience and in which competitors have stronger market positions;

dependence on unfamiliar affiliates and partners;

reduction in the development or commercialization of existing products due to increased focus on the development or commercialization of the acquired products;

responsibility for the liabilities of acquired businesses;

inability to maintain our internal standards, controls, procedures and policies at the acquired companies or businesses; and

potential loss of key employees of the acquired companies.

In addition, if we finance or otherwise complete acquisitions by issuing equity or convertible debt securities, our existing shareholders may be diluted.

If we are unable to expand label usage of Zevalin, or maintain or obtain improved reimbursement rates, we may not recognize the full value of the asset and there may be adverse effects on our expected financial and operating results.

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

We intend to seek expansion of the approved uses, or labeled uses, of Zevalin in the United States. However, we may be unable to obtain approval for such label expansion in full or in part. If we are not able to obtain approval for expansion of the labeled uses for Zevalin, or if we are otherwise unable to fulfill our marketing, sales and distribution plans for Zevalin, we may not recognize the full anticipated value of Zevalin. If we do not expand the approved uses of Zevalin, we may have insufficient net revenues to finance our current levels of debt and operations unless we are able to market and sell other products. We recently entered into an agreement with Bayer Schering for access to data from their first line indolent trial, or FIT trial, and we are currently evaluating whether or not that data can be used to support a supplemental biologics license application, or sBLA, for additional approved uses of Zevalin. However, there can be no guarantee that such data will be adequate or suitable for submission to the FDA in support of an sBLA for additional approved uses of Zevalin, or that the FDA will approve such an sBLA if it is submitted.

In 2007, the Centers for Medicare and Medicaid Services, or CMS, implemented new outpatient reimbursement rates to be put in place in 2008 for radiopharmaceuticals, including Zevalin. These new rates are below the acquisition costs of Zevalin. Congress passed legislation in late 2007 to delay the implementation of those new rates and stabilize reimbursement rates for the first six months of 2008 and subsequently passed legislation in July 2008 to extend that delay an additional 18 months, to January 1, 2010, with the intention of giving drug manufacturers and CMS more time to reach an agreement that more adequately reflects hospitals' costs associated with the therapy. However, there can be no guarantee that CMS will agree to a rate or methodology that provides an acceptable reimbursement on radiopharmaceuticals such as Zevalin. In the event that CMS does not agree to a reimbursement rate that is adequate to cover the acquisition costs of Zevalin, we may face immediate and significant difficulty in getting care providers to use Zevalin, which would have an adverse impact on our expected financial and operating results.

Table of Contents

We may face difficulties in achieving broader market acceptance of Zevalin if we do not invest significantly in our sales and marketing infrastructure.

We currently market Zevalin using a direct sales force that we recently hired in connection with our acquisition of Zevalin from Biogen. U.S. sales of Zevalin by its prior owner either declined or remained flat over the past several years and we expect such sales to remain flat in 2008. We believe that our sales and marketing strategy, in conjunction with our efforts to obtain approval by the FDA for expanded uses of Zevalin, will increase sales of and revenue from Zevalin over the next few years. Our sales and marketing strategy intends to take advantage of the recent lowering of barriers to adoption, including greater economic incentives and practice efficiencies for Zevalin compared to rituximab, the recent adoption of positron emission tomography in community oncology practices, which facilitates use of Zevalin, and implementation of a Zevalin community access program, which targets facilitation of on-site ordering, receipt and administration of Zevalin by the 100 largest community oncology group practices. However, implementation of the sales and marketing strategy will require an investment of resources and may not increase Zevalin revenues according to our forecasts. In addition, creation and expansion of an effective sales force may take time, and competition for sales and marketing personnel in our industry is intense. Therefore, we will need to effectively manage and expand our sales force, hire individuals with additional technical expertise, expand our distribution capacity or otherwise grow our sales and marketing infrastructure in order to achieve broader market acceptance and additional sales revenue from Zevalin. In addition to the factors just listed, if we do not effectively manage our sales force, our financial condition and operating results may suffer.

We may not realize any royalties, milestone payments or other benefits under the License and Co-Development agreement entered into with Novartis Pharmaceutical Company Ltd.

We have entered into a License and Co-Development agreement related to OPAXIO and pixantrone with Novartis Pharmaceutical Company Ltd., or Novartis, pursuant to which Novartis received an exclusive worldwide license for the development and commercialization of OPAXIO and an option to enter into an exclusive worldwide license to develop and commercialize pixantrone. We will not receive any royalty or milestone payments under this agreement unless Novartis elects to participate in the development and commercialization of OPAXIO or if Novartis exercises its option related to pixantrone and we are able to reach a definitive agreement. Novartis is under no obligation to make such election or exercise such right and may never do so. In addition, even if Novartis exercises such rights, any royalties and milestone payments we may be eligible to receive from Novartis are subject to the receipt of the necessary regulatory approvals and the attainment of certain sales levels. We may never receive the necessary regulatory approvals and our products may not reach the necessary sales levels. Novartis has the right under the agreement in its sole discretion to terminate such agreement at any time on written notice to us.

We may be delayed, limited or precluded from obtaining regulatory approval of OPAXIO given that our three STELLAR phase III clinical trials for the treatment of non-small cell lung cancer did not meet their primary endpoints.

There are no guarantees that we will obtain regulatory approval to manufacture, market, or expand the marketing of any of our drug candidates. Obtaining regulatory approval to market drugs to treat cancer is expensive, difficult and risky. Preclinical and clinical data can be interpreted in different ways, which could delay, limit or preclude regulatory approval. Negative or inconclusive results or adverse medical events during a clinical trial could delay, limit or prevent regulatory approval.

Our future financial success depends in large part on obtaining regulatory approval of OPAXIO. In March 2005, we announced the results of STELLAR 3, and in May 2005, we announced the results of STELLAR 2 and 4, our phase III clinical trials of OPAXIO in non-small cell lung cancer. All three trials failed to achieve their primary endpoints of superior overall survival compared to current marketed agents for treating NSCLC.

In December 2006, we closed the PIONEER clinical trial and in 2007, we initiated a new study in the United States, PGT307, which focuses on the primary efficacy endpoint of survival in women with NSCLC and pre-menopausal estrogen levels. We have decided not to initiate an additional study, the PGT306 trial, for which we have submitted a special protocol assessment, or SPA, to conserve limited financial resources. We also feel that compelling evidence from one trial, the PGT307 trial, along with supporting evidence from earlier clinical trials, may be adequate to submit an NDA for OPAXIO even though the FDA has established a requirement that two adequate and well-controlled pivotal studies demonstrating a statistically significant improvement in overall survival will be required for approval of OPAXIO in the NSCLC setting. We may not receive compelling evidence or any positive results from the PGT307 trial, which would preclude our planned submission of an NDA to the FDA, and would preclude us from marketing OPAXIO in the United States.

Based on discussions with the European Medicines Agency, or EMEA, Scientific Advice Working Party, we submitted a Marketing Authorization Application, or MAA for OPAXIO in Europe on March 4, 2008 based on results of the STELLAR trials. The MAA was accepted for review by the EMEA in April 2008, however a successful regulatory outcome from the EMEA is not assured as the EMEA's final opinion cannot be predicted until they have had the opportunity to complete a thorough review of the clinical data presented in the MAA.

Table of Contents

We are subject to extensive government regulation.

We are subject to rigorous and extensive regulation by the FDA in the United States and by comparable agencies in other states and countries. Failure to comply with regulatory requirements could result in various adverse consequences, including possible delay in approval or refusal to approve a product, withdrawal of approved products from the market, product seizures, injunctions, regulatory restrictions on our business and sales activities, monetary penalties, or criminal prosecution.

Our products may not be marketed in the United States until they have been approved by the FDA and may not be marketed in other countries until they have received approval from the appropriate agencies. With the exception of Zevalin, none of our current products have received approval. Obtaining regulatory approval requires substantial time, effort and financial resources, and we may not be able to obtain approval of any of our products on a timely basis, or at all. If our products are not approved quickly enough to provide net revenues to defray our debt and operating expenses, our business and financial condition will be adversely affected.

Our marketed products, such as Zevalin, are and will be subject to extensive regulations regarding their promotion and commercialization. For instance, we are subject to numerous regulations and statutes regulating the manner of selling and obtaining reimbursement for our products that receive marketing approval. For example, federal statutes generally prohibit providing certain discounts and payments to physicians to encourage them to prescribe our product. Violations of such regulations or statutes may result in treble damages, criminal or civil penalties, fines or exclusion of CTI or its employees from participation in federal and state health care programs. Although we have policies prohibiting violations of relevant regulations and statutes, unauthorized actions of our employees or consultants, or unfavorable interpretations of such regulations or statutes may result in third parties or regulatory agencies bringing legal proceedings or enforcement actions against us. Because our sales force is relatively new, we may have a greater risk of such violations from lack of adequate training or experience. The expense to retain and pay legal counsel and consultants to defend against any such proceedings would be substantial, and together with the diversion of management's time and attention to assist in any such defense, may negatively affect our financial condition and results of operations.

In addition, both before and after approval, our contract manufacturers and our products are subject to numerous regulatory requirements covering, among other things, testing, manufacturing, quality control, labeling, advertising, promotion, distribution and export. Manufacturing processes must conform to current Good Manufacturing Practice, or cGMPs. The FDA and other regulatory authorities periodically inspect manufacturing facilities to assess compliance with cGMPs. Accordingly, manufacturers must continue to expend time, money and effort to maintain compliance. Failure to comply with FDA, EMEA or other applicable regulations may cause us to curtail or stop the manufacture of such products until we obtain regulatory compliance.

The marketing and promotion of pharmaceuticals is also heavily regulated, particularly with regard to prohibitions on the promotion of products for off-label uses. In April 2007, we paid a civil penalty of \$10.5 million and entered into a settlement agreement with the United States Attorney's Office, or USAO, for the Western District of Washington arising out of their investigation into certain of our prior marketing practices relating to TRISENOX, which was divested to Cephalon Inc. in July 2005. As part of that settlement agreement, and in connection with the acquisition of Zevalin, a commercially approved drug, we also entered into a corporate integrity agreement with the HHS-OIG that requires us to establish a compliance committee and compliance program and adopt a formal code of conduct. The USAO settlement does not address separate claims brought against the Company by the private party plaintiff in this matter, which generally relate to attorney's fees and employment related claims. In 2007, the United States District Court dismissed the private party plaintiff's employment claims as barred by applicable statutes of limitation, however, in July 2008 the private party plaintiff filed a petition seeking approximately \$1.2 million in attorneys' fees and costs. While we intend to oppose this petition, there can be no guarantee that we will partially or wholly prevail in such opposition to the petition for fees.

We rely on third parties for the manufacture and supply of Zevalin and for the manufacture and supply of radioactive isotopes used in the administration of Zevalin

We currently rely on Biogen to manufacture and supply Zevalin to us through a long-term manufacturing agreement, and Biogen may, in turn, rely on other third-party manufacturers to fill its requirements for manufacturing Zevalin. If Biogen or any third party contract manufacturing organization, or CMO, or contract service provider, or CSP, upon which it relies does not produce or test and release Zevalin in sufficient quantities and on a timely and cost-effective basis, or if Biogen or any third party CMO or CSP does not obtain and maintain all required manufacturing approvals, our business could be harmed. In addition, we rely on MDS (Canada) for the manufacture and supply of Yttrium-90, a radioactive isotope used in the administration of Zevalin therapy. MDS (Canada) is currently our sole source of Yttrium-90, which must be manufactured and shipped in such a way as to ensure the appropriate potency of the isotope based on its radioactive half-life at the time of administration to the patient is valid. If MDS (Canada) were to have problems with the manufacture or supply of Yttrium-90, our business could be materially impacted, and we may not be able to find an additional supplier of the isotope on acceptable terms or at all. We also rely on Mallinckrodt and GE for the manufacture and supply of Indium-111, a radioactive isotope used

Table of Contents

in the administration of Zevalin diagnostic for clinical purposes. Mallinckrodt and GE are currently our two qualified sources of Indium-111, which must be manufactured and shipped in such a way as to ensure the appropriate potency of the isotope based on its radioactive half-life at the time of administration of the diagnostic dose to the patient. If both companies were to have problems with the manufacture or supply of Indium-111, our business could be materially impacted, and we may not be able to find an additional supplier of the isotope on acceptable terms or at all.

We face direct and intense competition from our competitors in the biotechnology and pharmaceutical industries, and we may not compete successfully against them.

Competition in the oncology market is intense and is accentuated by the rapid pace of technological development. We anticipate that we will face increased competition in the future as new companies enter the market. Our competitors in the United States and elsewhere are numerous and include, among others, major multinational pharmaceutical companies, specialized biotechnology companies and universities and other research institutions. Specifically:

Zevalin currently competes with Bexxar[®], which is marketed by GlaxoSmithKline, and any rituximab-containing chemotherapy regimen. Rituximab is marketed in the U.S. by Genentech and Biogen Idec. In addition, other companies such as Cephalon, Eli Lilly, Genta, Genmab, Favrilite, and Genotope are developing products which could compete with Zevalin.

If we are successful in bringing OPAXIO to market, we will face direct competition from oncology-focused multinational corporations. OPAXIO will compete with other taxanes. Many oncology-focused multinational corporations currently market or are developing taxanes, epothilones, and other cytotoxic agents, which inhibit cancer cells by a mechanism similar to taxanes, or similar products including, among others, Bristol-Myers Squibb Co. and others, which markets paclitaxel and generic forms of paclitaxel; Aventis, which markets docetaxel; Genentech and OSI Pharmaceuticals, which markets Tarceva ; Genentech, which markets Avastin , Eli Lilly, which markets Alimta[®], and American Pharmaceutical Partners, which markets Abraxane . In addition, other companies such as NeoPharm Inc. and Telik, Inc. are also developing products which could compete with OPAXIO.

Because pixantrone is intended to provide less toxic treatment to patients who have failed standard chemotherapy treatment, if pixantrone is brought to market, it is not expected to compete directly with many existing chemotherapies. However, pixantrone will face competition from currently marketed anthracyclines, such as mitoxantrone (Novantrone[®]), and new anti-cancer drugs with reduced toxicity that may be developed and marketed.

If we are successful in bringing brostallicin to market, we will face direct competition from other minor groove binding agents including Yondelis[®], which is currently developed by PharmaMar and has received Authorization of Commercialization from the European Commission for soft tissue sarcoma.

Many of our competitors, either alone or together with their collaborators and, in particular, the multinational pharmaceutical companies, have substantially greater financial resources and development and marketing teams than us. In addition, many of our competitors, either alone or together with their collaborators, have significantly greater experience than we do in developing, manufacturing and marketing products. As a result, these companies' products might come to market sooner or might prove to be more effective, less expensive, have fewer side effects or be easier to administer than ours. In any such case, sales of our products or eventual products would likely suffer and we might never recoup the significant investments we are making to develop these product candidates.

Uncertainty regarding third-party reimbursement and healthcare cost containment initiatives may limit our returns.

The ongoing efforts of governmental and third-party payors to contain or reduce the cost of healthcare may affect our ability to commercialize our products successfully. Governmental and other third-party payors continue to attempt to contain healthcare costs by:

challenging the prices charged for health care products and services,

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

limiting both coverage and the amount of reimbursement for new therapeutic products,

denying or limiting coverage for products that are approved by the FDA but are considered experimental or investigational by third-party payors,

refusing in some cases to provide coverage when an approved product is used for disease indications in a way that has not received FDA marketing approval, and

denying coverage altogether.

The trend toward managed healthcare in the United States, the growth of organizations such as health maintenance organizations, and legislative proposals to reform healthcare and government insurance programs could significantly influence the purchase of healthcare services and products, resulting in lower prices and reducing demand for our products. In addition, in almost all European markets, pricing and choice of prescription pharmaceuticals are subject to governmental control. Therefore, the price of our products and their reimbursement in Europe will be determined by national regulatory authorities.

Table of Contents

Even if we succeed in bringing any of our proposed products to the market, they may not be considered cost-effective and third-party reimbursement might not be available or sufficient. If adequate third-party coverage is not available, we may not be able to maintain price levels sufficient to realize an appropriate return on our investment in research and product development. In addition, legislation and regulations affecting the pricing of pharmaceuticals may change in ways adverse to us before or after any of our proposed products are approved for marketing.

Even if our drug candidates are successful in clinical trials, we may not be able to successfully commercialize them.

Since our inception in 1991, we have dedicated substantially all of our resources to the research and development of our technologies and related compounds. All of our compounds, with the exception of Zevalin, currently are in research or development, and have not received marketing approval.

Prior to commercialization, each product candidate requires significant research, development and preclinical testing and extensive clinical investigation before submission of any regulatory application for marketing approval. The development of anti-cancer drugs, including those we are currently developing, is unpredictable and subject to numerous risks. Potential products that appear to be promising at early stages of development may not reach the market for a number of reasons including that they may:

be found ineffective or cause harmful side effects during preclinical testing or clinical trials,

fail to receive necessary regulatory approvals,

be difficult to manufacture on a scale necessary for commercialization,

be uneconomical to produce,

fail to achieve market acceptance, or

be precluded from commercialization by proprietary rights of third parties.

The occurrence of any of these events could adversely affect the commercialization of our products. Products, if introduced, may not be successfully marketed and/or may not achieve customer acceptance. If we fail to commercialize products or if our future products do not achieve significant market acceptance, we will not likely generate significant revenues or become profitable.

The intellectual property and assets related to Zevalin are subject to a security agreement with Biogen; if we were to default on certain payments or reimbursement owed to Biogen or certain third parties, those assets would be subject to foreclosure by Biogen and we could lose our ability to continue development, sales and marketing activities with respect to Zevalin.

On December 21, 2007, in connection with our purchase of Zevalin, we entered into a Security Agreement with Biogen granting a first priority security interest to Biogen in all of our right, title and interest (a) in and to the assets related to Zevalin that we purchased from Biogen, together with any other assets or rights related to any of such assets or otherwise used in the development, manufacture or commercialization of Zevalin, and (b) under certain license, sublicense and supply agreements entered into in connection with our purchase of Zevalin. In the event we were to default on certain of our obligations under the Security Agreement, the Asset Purchase Agreement pursuant to which we continue to owe royalties and milestone payments to Biogen, or the related sublicense and service agreements, or in the event we were to make an application for, or consent to, the appointment of a receiver, trustee or liquidator of all or a substantial portion of our assets, transfer our assets as part of a general assignment or other arrangement for the benefit of creditors, become insolvent, file a voluntary or involuntary petition under the provisions of the United States Bankruptcy Code, or in the event of an attachment or execution upon, or seizure of, all or substantially all of our assets, Biogen may take any action with respect to the collateral under the Security Agreement that it deems necessary or advisable to accomplish the purposes of the Security Agreement. The Security Agreement will remain in effect until all obligations secured by that

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

agreement have been satisfied. If Biogen were to foreclose on the collateral under this Security Agreement, it would have a material adverse impact on our business.

If any of our license agreements for intellectual property underlying Zevalin, OPAXIO, pixantrone, brostallicin, or any other products are terminated, we may lose our rights to develop or market that product.

We have licensed intellectual property, including patent applications relating to intellectual property for pixantrone, brostallicin and Zevalin. We have also in-licensed the intellectual property for our drug delivery technology relating to OPAXIO that uses polymers that are linked to drugs, known as polymer-drug conjugates. Some of our product development programs depend on our ability to maintain rights under these licenses. Each licensor has the power to terminate its agreement with us if we fail to meet our obligations under these licenses. We may not be able to meet our obligations under these licenses. If we default under any license agreements, we may lose our right to market and sell any products based on the licensed technology.

Table of Contents

If we fail to adequately protect our intellectual property, our competitive position could be harmed.

Development and protection of our intellectual property are critical to our business. If we do not adequately protect our intellectual property, competitors may be able to practice our technologies. Our success depends in part on our ability to:

obtain patent protection for our products or processes both in the United States and other countries,

protect trade secrets, and

prevent others from infringing on our proprietary rights.

When polymers are linked, or conjugated, to drugs, the results are referred to as polymer-drug conjugates. We are developing drug delivery technology that links chemotherapy to biodegradable polymers. For example, OPAXIO is paclitaxel, the active ingredient in Taxol[®], one of the world's best selling cancer drugs, linked to polyglutamate. We may not receive a patent for all of our polymer-drug conjugates and we may be challenged by the holder of a patent covering the underlying drug and/or methods for its use or manufacture.

The patent position of biopharmaceutical firms generally is highly uncertain and involves complex legal and factual questions. The U.S. Patent and Trademark Office has not established a consistent policy regarding the breadth of claims that it will allow in biotechnology patents. If it allows broad claims, the number and cost of patent interference proceedings in the United States and the risk of infringement litigation may increase. If it allows narrow claims, the risk of infringement may decrease, but the value of our rights under our patents, licenses and patent applications may also decrease. Patent applications in which we have rights may never issue as patents and the claims of any issued patents may not afford meaningful protection for our technologies or products. In addition, patents issued to us or our licensors may be challenged and subsequently narrowed, invalidated or circumvented. Litigation, interference proceedings or other governmental proceedings that we may become involved in with respect to our proprietary technologies or the proprietary technology of others could result in substantial cost to us. Patent litigation is widespread in the biotechnology industry, and any patent litigation could harm our business. Costly litigation might be necessary to protect a patent position or to determine the scope and validity of third-party proprietary rights, and we may not have the required resources to pursue any such litigation or to protect our patent rights. Any adverse outcome in litigation with respect to the infringement or validity of any patents owned by third parties could subject us to significant liabilities to third parties, require disputed rights to be licensed from third parties or require us to cease using a product or technology.

We also rely upon trade secrets, proprietary know-how and continuing technological innovation to remain competitive. Third parties may independently develop such know-how or otherwise obtain access to our technology. While we require our employees, consultants and corporate partners with access to proprietary information to enter into confidentiality agreements, these agreements may not be honored.

Our products could infringe on the intellectual property rights of others, which may cause us to engage in costly litigation and, if unsuccessful, could cause us to pay substantial damages and prohibit us from selling our products.

We attempt to monitor patent filings but have not conducted an exhaustive search for patents that may be relevant to our products and product candidates in an effort to guide the design and development of our products to avoid infringement. We may not be able to successfully challenge the validity of these patents and could have to pay substantial damages, possibly including treble damages, for past infringement and attorneys fees if it is ultimately determined that our products infringe a third party's patents. Further, we may be prohibited from selling our products before we obtain a license, which, if available at all, may require us to pay substantial royalties. Moreover, third parties may challenge the patents that have been issued or licensed to us. Even if infringement claims against us are without merit, or if we challenge the validity of issued patents, lawsuits take significant time, may be expensive and may divert management attention from other business concerns.

We may be unable to obtain a quorum for meetings of our shareholders and therefore be unable to take certain corporate actions.

Our articles require that a quorum, consisting of one-third of the outstanding shares of voting stock, be represented in person or by proxy in order to transact business at a meeting of our shareholders. A substantial majority of our common shares are held by Italian institutions and under Italian laws and regulations, it is difficult to communicate with the beneficial holders of those shares to obtain votes. In 2006, when a quorum required a majority of the outstanding shares of our voting stock be represented in person or by proxy, we scheduled two annual meetings of shareholders but were unable to obtain quorum at either meeting. Following that failure to obtain quorum, we contacted certain

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

depository banks in Italy where significant numbers of shares of our common stock were held and asked them to cooperate by making a book entry transfer of their share positions at Monte Titoli to their U.S. correspondent bank, who would then transfer the shares to an account of the Italian bank at a U.S. broker-dealer that is an affiliate of that bank. Certain of the banks contacted agreed to make the share transfer

Table of Contents

pursuant to these arrangements as of the record date of the meeting, subject to the relevant beneficial owner taking no action to direct the voting of such shares. Under Rule 452 of the New York Stock Exchange, the U.S. broker-dealer may vote shares absent direction from the beneficial owner on certain matters, such as the uncontested election of directors, an amendment to the Company's articles of incorporation to increase authorized shares that are to be used for general corporate purposes, and the ratification of our auditors. As a result of this custody transfer, we were able to hold special meetings of the shareholders in April 2007 and January 2008 and annual meetings of the shareholders in September 2007 and June 2008. At the meeting in June 2008, our shareholders approved a proposal to reduce our quorum requirement from a majority of outstanding voting shares to one-third of outstanding voting shares. However, obtaining a quorum at future meetings even at the lower threshold will depend in part upon the willingness of the Italian depository banks to continue participating in the custody transfer arrangements, and we cannot be assured that those banks that have participated in the past will continue to participate in custody transfer arrangements in the future. We are continuing to explore other alternatives to achieve quorum for our meetings, however, we cannot be certain that we will find an alternate method if we are unable to continue to use the custody transfer arrangements. As a result, we may be unable to obtain quorum at future annual or special meetings of shareholders. If we are unable to obtain a quorum at our shareholder meetings and thus fail to get shareholder approval of corporate actions, such failure could have a materially adverse effect on the Company. In addition, brokers may only vote on those matters for which broker discretionary voting is allowed under Rule 452, and we may not be able to obtain the required number of votes to approve certain proposals that require a majority of all outstanding shares to approve the proposal due to our reliance on broker discretionary voting. Therefore it is possible that even if we are able to obtain a quorum for our meetings of the shareholders we still may not receive enough votes to approve proxy proposals presented at such meeting and, depending on the proposal in question, such failure could have a materially adverse effect on the Company.

We could fail in financing efforts or be delisted from Nasdaq if we fail to receive shareholder approval when needed.

We are required under the Nasdaq Marketplace Rules to obtain shareholder approval for any issuance of additional equity securities that would comprise more than 20% of our total shares of common stock outstanding before the issuance of the securities at a discount to the greater of book or market value in an offering that is not deemed to be a public offering by Nasdaq. Funding of our operations in the future may require issuance of additional equity securities that would comprise more than 20% of our total shares of common stock outstanding, but we might not be successful in obtaining the required shareholder approval for such an issuance, particularly in light of the difficulties we have experienced in obtaining a quorum and holding shareholder meetings as outlined above.

Our common stock is listed on the Nasdaq Global Market and we may not be able to maintain that listing, which may make it more difficult for investors to sell shares of our common stock.

Our common stock is listed on the Nasdaq Global Market. The Nasdaq Global Market has several quantitative and qualitative requirements companies must comply with to maintain this listing, including a \$1.00 minimum bid price per share and \$50 million minimum value of listed securities. On April 16, 2008, we received notice from the Nasdaq Stock Market that our common stock had a closing bid price below \$1.00 for at least 30 consecutive business days and therefore we are not in compliance with the listing standards of the Nasdaq Global Market. Under the current Nasdaq Global Market rules, we have a period of 180 days from the date of notice, or until October 13, 2008, to attain compliance by again meeting the \$1.00 minimum bid price for ten consecutive business days. We effected a 1-for-10 reverse stock split on August 31, 2008, and our common stock is currently meeting the \$1.00 minimum bid price requirement. However, there can be no assurance that our stock price will continue to meet the minimum bid price. Many companies which effect reverse stock splits do experience stock price declines afterwards. In addition, as of September 4, 2008, the value of our listed securities was only \$37.3 million, which was the 10th consecutive day that we have not met the \$50 million minimum value of listed securities listing requirement; and we received notice of delinquency from Nasdaq on September 5, 2008. Under the current Nasdaq Global Market rules, we have a period of 30 days from the date of notice of deficiency from Nasdaq to attain compliance by again meeting the \$50 million minimum value of listed securities for ten consecutive business days.

If we are unable to meet the continued listing requirements for the Nasdaq Global Market, we may have the option to transfer to the Nasdaq Capital Market, assuming we meet all other initial listing qualifications for the Nasdaq Capital Market. If we are unable to attain compliance with the minimum bid price or the minimum value of listed securities we may be delisted. The level of trading activity of our common stock may decline if it is no longer listed on the Nasdaq Global Market or Nasdaq Capital Market. Furthermore, our failure to maintain a listing on the Nasdaq 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 Global Market or 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.

Table of Contents

We may be unable to obtain the raw materials necessary to produce our OPAXIO product candidate in sufficient quantity to meet demand when and if such product is approved.

We may not be able to continue to purchase the materials necessary to produce OPAXIO, including paclitaxel, in adequate volume and quality. Paclitaxel is derived from certain varieties of yew trees and the supply of paclitaxel is controlled by a limited number of companies. Paclitaxel is available and we have purchased it from several sources. We purchase the raw materials paclitaxel and polyglutamic acid from a single source on a purchase order basis. Should the paclitaxel or polyglutamic acid purchased from our sources prove to be insufficient in quantity or quality, should a supplier fail to deliver in a timely fashion or at all, or should these relationships terminate, we may not be able to obtain a sufficient supply from alternate sources on acceptable terms, or at all.

Our dependence on third-party manufacturers means that we do not always have direct control over the manufacture, testing or distribution of our products.

We do not currently have internal analytical laboratory or manufacturing facilities to allow the testing or production and distribution of drug products in compliance with cGMPs. Because we do not directly control our suppliers, these vendors may not be able to provide us with finished product when we need it.

We will be dependent upon these third parties to supply us in a timely manner with products manufactured in compliance with cGMPs or similar manufacturing standards imposed by US and/or foreign regulatory authorities where our products will be tested and/or marketed. While the FDA and other regulatory authorities maintain oversight for cGMP compliance of drug manufacturers, contract manufacturers may at times violate cGMPs. The FDA and other regulatory authorities may take action against a contract manufacturer who violates cGMPs. One of our products under development, OPAXIO, has a complex manufacturing process, which may prevent us from obtaining a sufficient supply of drug product for the clinical trials and commercial activities currently planned or underway on a timely basis, if at all. The active pharmaceutical ingredients and finished products for pixantrone and brostallicin are both manufactured by a single vendor. The drug substance for Zevalin is produced under contract by Biogen and the drug product and finished product is manufactured and distributed at a contract manufacturer and contract distribution facility.

If we do not successfully develop additional products, we may be unable to generate significant revenue or become profitable.

We divested our commercial product, TRISENOX, in July 2005 and only acquired a new commercial product, Zevalin, in December 2007. Our ability to generate significant revenues from Zevalin is dependent in part on our ability to find new markets for the product, including through gaining wider acceptance and use of the drug by physicians and through FDA approval of expanded uses for the product. There is no guarantee that we will be successful in accomplishing either of these goals. OPAXIO, pixantrone, brostallicin and label expansions for Zevalin are currently in clinical trials and may not be successful. For example, our STELLAR phase III clinical trials for OPAXIO for the treatment of non-small cell lung cancer failed to meet their primary endpoints. A number of companies in the pharmaceutical industry, including us, have suffered significant setbacks in advanced clinical trials, even after reporting promising results in earlier trials. We will need to commit significant time and resources to develop this and additional product candidates. Our product candidates will be successful only if:

our product candidates are developed to a stage that will enable us to commercialize them or sell related marketing rights to pharmaceutical companies;

we are able to commercialize product candidates in clinical development or sell the marketing rights to third parties; and

our product candidates, if developed, are approved by the regulatory authorities.

We are dependent on the successful completion of these goals in order to generate revenues. The failure to generate such revenues may preclude us from continuing our research and development of these and other product candidates.

If we are unable to enter into new licensing arrangements, our future product portfolio and potential profitability could be harmed.

One component of our business strategy is in-licensing drug compounds developed by other pharmaceutical and biotechnology companies or academic research laboratories. Substantially all of our product candidates in clinical development are in-licensed from a third party, including

Zevalin, OPAXIO, pixantrone, and brostallicin.

Competition for new promising compounds and commercial products can be intense. If we are not able to identify future in-licensing opportunities and enter into future licensing arrangements on acceptable terms, our future product portfolio and potential profitability could be harmed.

Table of Contents

We may take longer to complete our clinical trials than we expect, or we may not be able to complete them at all.

Before regulatory approval for any potential product can be obtained, we must undertake extensive clinical testing on humans to demonstrate the safety and efficacy of the product. Although for planning purposes we forecast the commencement and completion of clinical trials, the actual timing of these events can vary dramatically due to a number of factors. On March 4, 2008, we submitted an MAA to the EMEA for OPAXIO. In April 2008, the EMEA accepted the MAA for review, however, we do not expect a regulatory decision on an MAA prior to the second half of 2009. Analysis of the data from our EXTEND trial is expected in the second half of 2008 and, if final study results are adequate, we could submit an NDA with the FDA in early 2009 with potential approval in the second half of 2009.

We may not obtain authorization to permit product candidates that are already in the preclinical development phase to enter the human clinical testing phase. Authorized preclinical or clinical testing may not be completed successfully within any specified time period by us, or without significant additional resources or expertise to those originally expected to be necessary. Many drugs in human clinical trials fail to demonstrate the desired safety and efficacy characteristics. Clinical testing may not show potential products to be safe and efficacious and potential products may not be approved for a specific indication. Further, the results from preclinical studies and early clinical trials may not be indicative of the results that will be obtained in later-stage clinical trials. Data obtained from clinical trials are susceptible to varying interpretations. Government regulators and our collaborators may not agree with our interpretation of our clinical trial results. In addition, we or regulatory authorities may suspend clinical trials at any time on the basis that the participants are being exposed to unacceptable health risks or for other reasons. Completion of clinical trials depends on, among other things, the number of patients available for enrollment in a particular trial, which is a function of many factors, including the number of patients with the relevant conditions, the nature of the clinical testing, the proximity of patients to clinical testing centers, the eligibility criteria for tests as well as competition with other clinical testing programs involving the same patient profile but different treatments.

We have limited experience in conducting clinical trials. We expect to continue to rely on third parties, such as contract research organizations, academic institutions and/or cooperative groups, to conduct, oversee and monitor clinical trials as well as to process the clinical results and manage test requests, which may result in delays or failure to complete trials if the third parties fail to perform or to meet the applicable standards.

If we fail to commence or complete, need to perform more or larger clinical trials than planned or experience delays in any of our present or planned clinical trials, our development costs may increase and/or our ability to commercialize our product candidates may be adversely affected. If delays or costs are significant, our financial results and our ability to commercialize our product candidates may be adversely affected.

If we fail to establish and maintain collaborations or if our partners do not perform, we may be unable to develop and commercialize our product candidates.

We have entered into collaborative arrangements with third-parties to develop and/or commercialize product candidates and are currently seeking additional collaborations. For example, we entered into an agreement with the Gynecologic Oncology Group to perform a phase III trial of OPAXIO in patients with ovarian cancer. Additional collaborations might be necessary in order for us to fund our research and development activities and third-party manufacturing arrangements, seek and obtain regulatory approvals and successfully commercialize our existing and future product candidates. If we fail to enter into additional collaborative arrangements or fail to maintain our existing collaborative arrangements, the number of product candidates from which we could receive future revenues would decline. For example, in 2005 we sold our product TRISENOX to Cephalon and, pursuant to the terms of the purchase agreement under which TRISENOX was sold, we are entitled to receive milestone payments upon the approval by the FDA of new labeled uses for TRISENOX, however, Cephalon may decide not to submit any additional information to the FDA to apply for label expansion of TRISENOX, in which case we would not receive a milestone payment under the agreement.

Our dependence on collaborative arrangements with third parties will subject us to a number of risks that could harm our ability to develop and commercialize products, including that:

collaborative arrangements may not be on terms favorable to us;

disagreements with partners may result in delays in the development and marketing of products, termination of our collaboration agreements or time consuming and expensive legal action;

we cannot control the amount and timing of resources partners devote to product candidates or their prioritization of product candidates and partners may not allocate sufficient funds or resources to the development, promotion or marketing of our products, or may not perform their obligations as expected;

partners may choose to develop, independently or with other companies, alternative products or treatments, including products or treatments which compete with ours;

agreements with partners may expire or be terminated without renewal, or partners may breach collaboration agreements with us;

Table of Contents

business combinations or significant changes in a partner's business strategy might adversely affect that partner's willingness or ability to complete its obligations to us; and

the terms and conditions of the relevant agreements may no longer be suitable.

The occurrence of any of these events could adversely affect the development or commercialization of our products.

Because we base several of our drug candidates on unproven novel technologies, we may never develop them into commercial products.

We base several of our product candidates upon novel technologies that we are using to develop drugs for the treatment of cancer. These technologies have not been proven. Furthermore, preclinical results in animal studies may not predict outcomes in human clinical trials. Our product candidates may not be proven safe or effective. If these technologies do not work, our drug candidates may not develop into commercial products.

Because there is a risk of product liability associated with our products, we face potential difficulties in obtaining insurance.

Our business exposes us to potential product liability risks inherent in the testing, manufacturing, marketing and sale of human pharmaceutical products, and we may not be able to avoid significant product liability exposure. While we have insurance covering marketing and sales of Zevalin as well as product use in our clinical trials for our product candidates, it is possible that we will not be able to maintain such insurance on acceptable terms or that any insurance obtained will provide adequate coverage against potential liabilities. Our inability to obtain sufficient insurance coverage at an acceptable cost or otherwise to protect against potential product liability claims could prevent or limit the commercialization of Zevalin or any products we develop. A successful product liability claim in excess of our insurance coverage could exceed our net worth.

Adverse events related to our products can negatively impact our product sales and results from operations.

Our commercial product, Zevalin, has the possibility of causing significant side effects in patients, and deaths associated with an infusion reaction symptom complex, though rare, have occurred within 24 hours of infusions of rituximab, a component of Zevalin. In addition, Yttrium-90 Zevalin administration often results in severe and prolonged cytopenias in most patients, while severe cutaneous and mucocutaneous reactions have also been reported. While side effects are common in oncology drugs, adverse events such as these could negatively impact sales of Zevalin, which in turn could negatively impact our results from operations.

Since we use hazardous materials in our business, we may be subject to claims relating to improper handling, storage or disposal of these materials.

Our research and development activities involve the controlled use of hazardous materials, chemicals and various radioactive compounds. We are subject to international, federal, state, and local laws and regulations governing the use, manufacture, storage, handling and disposal of such materials and certain waste products. Although we believe that our safety procedures for handling and disposing of such materials comply with the standards prescribed by the regulations, the risk of accidental contamination or injury from these materials cannot be eliminated completely. In the event of such an accident, we could be held liable for any damages that result and any such liability not covered by insurance could exceed our resources. Compliance with environmental laws and regulations may be expensive, and current or future environmental regulations may impair our research, development or production efforts.

We may not be able to conduct animal testing in the future, which could harm our research and development activities.

Certain of our research and development activities involve animal testing. Such activities have been the subject of controversy and adverse publicity. Animal rights groups and other organizations and individuals have attempted to stop animal testing activities by pressing for legislation and regulation in these areas and by disrupting activities through protests and other means. To the extent the activities of these groups are successful, our business could be materially harmed by delaying or interrupting our research and development activities.

Risks Related To the Securities Markets

Our stock price 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.

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

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 September 4, 2008, our stock price has ranged from a low of \$1.90 to a high of \$40.00. Fluctuations in the trading price or liquidity of our common stock may adversely affect the value of your investment in our common stock.

Table of Contents

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

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

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

our issuance of additional debt, equity or other securities, which we need to pursue in 2008 to generate additional funds to cover our current debt and operating expenses;

our quarterly operating results;

developments or disputes concerning patent or other proprietary rights;

developments in our relationships with collaborative partners;

acquisitions or divestitures;

litigation and government proceedings;

adverse legislation, including changes in governmental regulation;

third-party reimbursement policies;

changes in securities analysts' recommendations;

changes in health care policies and practices;

economic and other external factors; and

general market conditions.

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

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

insurance will cover any specific claim that we may face in the future, or that it will be adequate to cover all potential liabilities and damages.

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

Provisions of our articles of incorporation and 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 so that only approximately one third of the 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 bylaws without shareholder approval; and

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.

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.

Table of Contents

These provisions, alone or together, could have the effect of deterring or delaying changes in incumbent management, proxy contests or changes in control.

USE OF PROCEEDS

We will retain broad discretion over the use of the net proceeds from the sale of our securities offered hereby. Except as described in any prospectus supplement, we currently anticipate using the net proceeds from the sale of our securities hereby primarily for working capital and for general corporate purposes, which may include, among other things, paying interest on our outstanding indebtedness, paying dividends on our preferred stock, funding research and development, preclinical and clinical trials, the preparation and filing of new drug applications, commercial operations, including sales and marketing associated with Zevalin, and general working capital. The amounts and timing of the expenditures may vary significantly depending on numerous factors, such as the progress of our research and development efforts, technological advances and the competitive environment for our products. We also might use a portion of the net proceeds to acquire or invest in complementary businesses, products and technologies.

Pending the use of the net proceeds described above, we may temporarily invest the net proceeds in short- and medium-term interest-bearing obligations, investment-grade instruments certificates of deposit or direct or guaranteed obligation of the U.S. government.

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 restated articles of incorporation, as amended, and all applicable provisions of Washington law.

General

We are authorized to issue 400,000,000 shares of common stock, no par value, and 10,000,000 shares of preferred stock, no par value. As of the close of business on September 2, 2008, there were 18,737,945 shares of our common stock outstanding. We also had 550 shares of our Series A 3% convertible preferred stock outstanding, 5,218 shares of our Series B 3% convertible preferred stock outstanding, 6,284 shares of our Series C 3% convertible preferred stock outstanding, and 1,000 shares of our Series D 7% convertible preferred stock outstanding. All of our Series E 13.5% preferred stock was exchanged for convertible debt in June 2008 at the election of the holder of such preferred stock pursuant to our amended and restated articles of incorporation.

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 a liquidation, dissolution or winding up of the company, 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.

Preferred Stock

The board of directors has the authority, without action by the shareholders, to designate and issue preferred stock in one or more series and to designate the rights, preferences and privileges of each series, which may be greater than the rights of the common stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock upon the rights of holders of the common stock until the 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;

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

As of September 2, 2008, 550 shares of our Series A 3% convertible preferred stock were outstanding, 5,218 shares of our Series B 3% convertible preferred stock were outstanding, 6,284 shares of our Series C 3% convertible preferred stock were outstanding, and 1,000 shares of our Series D 7% convertible preferred stock were outstanding.

Anti-Takeover Effects of Provisions of Washington Law and our Charter and Bylaws

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 the company, 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 the company's

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

voting securities without the prior approval of the company's board of directors) for a period of five years following the acquiring person's share acquisition date. The prohibited transactions include, among others, a merger or consolidation with, disposition of assets to, or issuance or redemption of stock to or from, the acquiring person, or otherwise allowing the acquiring person to receive a disproportionate benefit as a shareholder. Exceptions to this statutory prohibition include approval of the transaction at a shareholders meeting by holders of not less than a two-thirds of the shares held by each voting group entitled to vote on the transaction, not counting shares as to which the acquiring person has beneficial ownership or voting control, transactions approved by the 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. The company may not exempt itself from coverage of this statute. These statutory provisions may have the effect of delaying, deterring or preventing a change in control of the company.

Table of Contents

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 the company 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 the best interests of the company 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 the company. Further, our amended and restated bylaws require a shareholder to provide notice to the company 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 the management of the company.

Transfer Agent and Registrar

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

Table of Contents

DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we include in any applicable prospectus supplements, summarizes the material terms and provisions of the debt securities that we may offer under this prospectus. While the terms we have summarized below will generally apply to any future debt securities we may offer under this prospectus, we will describe the particular terms of any debt securities that we may offer in more detail in the applicable prospectus supplement. The terms of any debt securities we offer under a prospectus supplement may differ from the terms we describe below.

We will issue the senior notes under the senior indenture which we will enter into with one or more trustees. We will issue the subordinated notes under the subordinated indenture which we will enter into with one or more trustees. We have filed forms of these documents as exhibits to the registration statement of which this prospectus is a part. We use the term *indentures* to refer to both the senior indenture and the subordinated indenture.

The indentures will be qualified under the Trust Indenture Act of 1939, as amended, or the Trust Indenture Act. We use the term *debenture trustee* to refer to either the senior trustee or the subordinated trustee, as applicable.

The following summaries of material provisions of the senior notes, the subordinated notes and the indentures are subject to, and qualified in their entirety by reference to, all the provisions of the indenture applicable to a particular series of debt securities. We urge you to read the applicable prospectus supplements related to the debt securities that we sell under this prospectus, as well as the complete indentures that contain the terms of the debt securities. Except as we may otherwise indicate, the terms of the senior indenture and the subordinated indenture are identical.

General

We will describe in the applicable prospectus supplement the terms relating to a series of debt securities, including:

the title;

the principal amount being offered, and, if a series, the total amount authorized and the total amount outstanding;

any limit on the amount that may be issued;

whether or not we will issue the series of debt securities in global form and, if so, the terms and who the depository will be;

the maturity date;

the principal amount due at maturity, and whether the debt securities will be issued with any original issue discount;

whether and under what circumstances, if any, we will pay additional amounts on any debt securities held by a person who is not a United States person for tax purposes, and whether we can redeem the debt securities if we have to pay such additional amounts;

the annual interest rate, which may be fixed or variable, or the method for determining the rate, the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;

the terms of the subordination of any series of subordinated debt;

the place where payments will be payable;

restrictions on transfer, sale or other assignment, if any;

our right, if any, to defer payment of interest and the maximum length of any such deferral period;

the date, if any, after which, the conditions upon which, and the price at which we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions, and any other applicable terms of those redemption provisions;

provisions for a sinking fund, purchase or other analogous fund, if any;

the date, if any, on which, and the price at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option to purchase, the series of debt securities;

whether the indenture will restrict our ability and/or the ability of our subsidiaries to:

incur additional indebtedness;

Table of Contents

issue additional securities;

create liens;

pay dividends and make distributions in respect of our capital stock and the capital stock of our subsidiaries;

redeem capital stock;

place restrictions on our subsidiaries' ability to pay dividends, make distributions or transfer assets;

make investments or other restricted payments;

sell or otherwise dispose of assets;

enter into sale-leaseback transactions;

engage in transactions with stockholders and affiliates;

issue or sell stock of our subsidiaries; or

effect a consolidation or merger;

whether the indenture will require us to maintain any interest coverage, fixed charge, cash flow-based, asset-based or other financial ratios;

a discussion of any material or special United States federal income tax considerations applicable to the debt securities;

information describing any book-entry features;

the procedures for any auction and remarketing, if any;

the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof;

if other than dollars, the currency in which the series of debt securities will be denominated; and

any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, including any events of default that are in addition to those described in this prospectus or any covenants provided with respect to the debt securities that are in addition to those described above, and any terms which may be required by us or advisable under applicable laws or regulations or advisable in connection with the marketing of the debt securities.

Conversion or Exchange Rights

We will set forth in the prospectus supplement the terms on which a series of debt securities may be convertible into or exchangeable for common stock or other securities of ours or a third party, including the conversion or exchange rate, as applicable, or how it will be calculated, and the applicable conversion or exchange period. We will include provisions as to whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of our securities or the securities of a third party that the holders of the series of debt securities receive upon conversion or exchange would, under the circumstances described in those provisions, be subject to adjustment, or pursuant to which those holders would, under those circumstances, receive other property upon conversion or exchange, for example in the event of our merger or consolidation with another entity.

Consolidation, Merger or Sale

The indentures in the forms initially filed as exhibits to the registration statement of which this prospectus is a part do not contain any covenant which restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of all or substantially all of our assets. However, any successor of ours or acquiror of such assets must assume all of our obligations under the indentures and the debt securities.

If the debt securities are convertible for our other securities, the person with whom we consolidate or merge or to whom we sell all of our property must make provisions for the conversion of the debt securities into securities which the holders of the debt securities would have received if they had converted the debt securities before the consolidation, merger or sale.

Table of Contents

Events of Default Under the Indenture

The following are events of default under the indentures with respect to any series of debt securities that we may issue:

if we fail to pay interest when due and payable and our failure continues for 90 days and the time for payment has not been extended or deferred;

if we fail to pay the principal, or premium, if any, when due and payable and the time for payment has not been extended or delayed;

if we fail to observe or perform any other covenant contained in the debt securities or the indentures, other than a covenant specifically relating to another series of debt securities, and our failure continues for 90 days after we receive notice from the debenture trustee or holders of at least 25% in aggregate principal amount of the outstanding debt securities of the applicable series; and

if specified events of bankruptcy, insolvency or reorganization occur.

If an event of default with respect to debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the debenture trustee or the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series, by notice to us in writing, and to the debenture trustee if notice is given by such holders, may declare the unpaid principal of, premium, if any, and accrued interest, if any, due and payable immediately. If an event of default specified in the last bullet point above occurs with respect to us, the principal amount of and accrued interest, if any, of each issue of debt securities then outstanding shall be due and payable without any notice or other action on the part of the debenture trustee or any holder.

The holders of a majority in principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the indenture.

Subject to the terms of the indentures, if an event of default under an indenture shall occur and be continuing, the debenture trustee will be under no obligation to exercise any of its rights or powers under such indenture at the request or direction of any of the holders of the applicable series of debt securities, unless such holders have offered the debenture trustee reasonable indemnity. The holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the debenture trustee, or exercising any trust or power conferred on the debenture trustee, with respect to the debt securities of that series, provided that:

the direction so given by the holder is not in conflict with any law or the applicable indenture; and

subject to its duties under the Trust Indenture Act, the debenture trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

A holder of the debt securities of any series will only have the right to institute a proceeding under the indentures or to appoint a receiver or trustee, or to seek other remedies if:

the holder has given written notice to the debenture trustee of a continuing event of default with respect to that series;

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made written request, and such holders have offered reasonable indemnity to the debenture trustee to institute the proceeding as trustee; and

the debenture trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions within 90 days after the notice, request and offer. These limitations do not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities.

We will periodically file statements with the debenture trustee regarding our compliance with specified covenants in the indentures.

Modification of Indenture; Waiver

We and the debenture trustee may change an indenture without the consent of any holders with respect to specific matters, including:

to fix any ambiguity, defect or inconsistency in the indenture;

to comply with the provisions described above under Consolidation, Merger or Sale;

Table of Contents

to comply with any requirements of the Securities and Exchange Commission in connection with the qualification of any indenture under the Trust Indenture Act;

to evidence and provide for the acceptance of appointment hereunder by a successor trustee;

to provide for uncertificated debt securities and to make all appropriate changes for such purpose;

to add to, delete from, or revise the conditions, limitations and restrictions on the authorized amount, terms or purposes of issuance, authorization and delivery of debt securities of any series;

to add to our covenants such new covenants, restrictions, conditions or provisions for the protection of the holders, to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default, or to surrender any of our rights or powers under the indenture; or

to change anything that does not harm the interests of any holder of debt securities of any series.

In addition, under the indentures, the rights of holders of a series of debt securities may be changed by us and the debenture trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected. However, we and the debenture trustee may only make the following changes with the consent of each holder of any outstanding debt securities affected:

extending the fixed maturity of the series of debt securities;

reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption of any debt securities; or

reducing the percentage of debt securities, the holders of which are required to consent to any supplemental indenture.

Discharge

Each indenture provides that we can elect to be discharged from our obligations with respect to one or more series of debt securities, except for obligations to:

register the transfer or exchange of debt securities of the series;

replace stolen, lost or mutilated debt securities of the series;

maintain paying agencies;

hold monies for payment in trust;

recover excess money held by the debenture trustee;

compensate and indemnify the debenture trustee; and

appoint any successor trustee.

In order to exercise our rights to be discharged, we must deposit with the debenture trustee money or government obligations sufficient to pay all the principal of, any premium, if any, and interest on, the debt securities of the series on the dates payments are due.

Form, Exchange and Transfer

We will issue the debt securities of each series only in fully registered form without coupons and, unless we otherwise specify in the applicable prospectus supplement, in denominations of \$1,000 and any integral multiple thereof. The indentures provide that we may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company or another depository named by us and identified in a prospectus supplement with respect to that series. See [Legal Ownership of Securities](#) for a further description of the terms relating to any book-entry securities.

At the option of the holder, subject to the terms of the indentures and the limitations applicable to global securities described in the applicable prospectus supplement, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indentures and the limitations applicable to global securities set forth in the applicable prospectus supplement, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, we will make no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

Table of Contents

We will name in the applicable prospectus supplement the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

If we elect to redeem the debt securities of any series, we will not be required to:

issue, register the transfer of, or exchange any debt securities of any series being redeemed in part during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or

register the transfer of or exchange any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities we are redeeming in part.

Information Concerning the Debenture Trustee

The debenture trustee, other than during the occurrence and continuance of an event of default under an indenture, undertakes to perform only those duties as are specifically set forth in the applicable indenture. Upon an event of default under an indenture, the debenture trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs. Subject to this provision, the debenture trustee is under no obligation to exercise any of the powers given it by the indentures at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur.

Payment and Paying Agents

Unless we otherwise indicate in the applicable prospectus supplement, we will make payment of the interest on any debt securities on any interest payment date to the person in whose name the debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest.

We will pay principal of and any premium and interest on the debt securities of a particular series at the office of the paying agents designated by us, except that, unless we otherwise indicate in the applicable prospectus supplement, we may make interest payments by check which we will mail to the holder or by wire transfer to certain holders. Unless we otherwise indicate in a prospectus supplement, we will designate an office or agency of the debenture trustee in the city of New York as our sole paying agent for payments with respect to debt securities of each series. We will name in the applicable prospectus supplement any other paying agents that we initially designate for the debt securities of a particular series. We will maintain a paying agent in each place of payment for the debt securities of a particular series.

All money we pay to a paying agent or the debenture trustee for the payment of the principal of or any premium or interest on any debt securities which remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of the debt security thereafter may look only to us for payment thereof.

Governing Law

The indentures and the debt securities will be governed by and construed in accordance with the laws of the state of New York, except to the extent that the Trust Indenture Act is applicable.

Subordination of Subordinated Debt Securities

The subordinated debt securities will be subordinate and junior in priority of payment to certain of our other indebtedness to the extent described in a prospectus supplement. The indentures in the forms initially filed as exhibits to the registration statement of which this prospectus is a part do not limit the amount of indebtedness which we may incur, including senior indebtedness or subordinated indebtedness, and do not limit us from issuing any other debt, including secured debt or unsecured debt.

Table of Contents

DESCRIPTION OF WARRANTS

The following description, together with the additional information we include in any applicable prospectus supplements, summarizes the material terms and provisions of the warrants that we may offer under this prospectus, which consist of warrants to purchase our common stock, preferred stock and/or debt securities in one or more series. Warrants may be offered independently or together with our common stock, preferred stock and/or debt securities offered by any prospectus supplement, and may be attached to or separate from those securities. While the terms we have summarized below will generally apply to any future warrants we may offer under this prospectus, we will describe the particular terms of any warrants that we may offer in more detail in the applicable prospectus supplement. The terms of any warrants we offer under a prospectus supplement may differ from the terms we describe below.

We will issue the warrants directly or under a warrant agreement which we will enter into with a warrant agent to be selected by us. We have filed forms of the warrant agreements and the related warrant certificates for each type of warrant we may offer under this prospectus as exhibits to the registration statement of which this prospectus is a part. We use the term *warrant agreement* to refer to any of these warrant agreements. We use the term *warrant agent* to refer to the warrant agent under any of these warrant agreements. The warrant agent will act solely as an agent of ours in connection with the warrants and will not act as an agent for the holders or beneficial owners of the warrants.

The following summary of material provisions of the warrants and the warrant agreements are subject to, and qualified in their entirety by reference to, all the provisions of the warrant agreement applicable to a particular series of warrants. We urge you to read the applicable prospectus supplements related to the warrants that we sell under this prospectus, as well as the complete warrant agreements that contain the terms of the warrants.

General

We will describe in the applicable prospectus supplement the terms relating to a series of warrants. If warrants for the purchase of debt securities are offered, the prospectus supplement will describe the following terms, to the extent applicable:

the offering price and the aggregate number of warrants offered;

the currencies in which the warrants are being offered;

the designation, aggregate principal amount, currencies, denominations and terms of the series of debt securities that can be purchased if a holder exercises a warrant;

the designation and terms of any series of debt securities with which the warrants are being offered and the number of warrants offered with each such debt security;

the date on and after which the holder of the warrants can transfer them separately from the related series of debt securities;

the principal amount of the series of debt securities that can be purchased if a holder exercises a warrant and the price at which and currencies in which such principal amount may be purchased upon exercise;

the terms of any rights to redeem or call the warrants;

the date on which the right to exercise the warrants begins and the date on which such right expires;

federal income tax consequences of holding or exercising the warrants; and

any other specific terms, preferences, rights or limitations of, or restrictions on, the warrants.

Warrants for the purchase of debt securities will be in registered form only.

If warrants for the purchase of our common stock or preferred stock are offered, the prospectus supplement will describe the following terms, to the extent applicable:

the offering price and the aggregate number of warrants offered;

the total number of shares that can be purchased if a holder of the warrants exercises them and, in the case of warrants for preferred stock, the designation, total number and terms of the series of preferred stock that can be purchased upon exercise;

the designation and terms of any series of preferred stock with which the warrants are being offered and the number of warrants being offered with each share of common stock or preferred stock;

the date on and after which the holder of the warrants can transfer them separately from the related common stock or series of preferred stock;

Table of Contents

the number of shares of common stock or preferred stock that can be purchased if a holder exercises the warrant and the price at which such common stock or preferred stock may be purchased upon exercise, including, if applicable, any provisions for changes to or adjustments in the exercise price and in the securities or other property receivable upon exercise;

the terms of any rights to redeem or call, or accelerate the expiration of, the warrants;

the date on which the right to exercise the warrants begins and the date on which that right expires;

federal income tax consequences of holding or exercising the warrants; and

any other specific terms, preferences, rights or limitations of, or restrictions on, the warrants.

Warrants for the purchase of common stock or preferred stock will be in registered form only.

A holder of warrant certificates may exchange them for new certificates of different denominations, present them for registration of transfer and exercise them at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement. Until any warrants to purchase debt securities are exercised, the holder of the warrants will not have any of the rights of holders of the debt securities that can be purchased upon exercise, including any rights to receive payments of principal, premium or interest on the underlying debt securities or to enforce covenants in the applicable indenture. Until any warrants to purchase common stock, preferred stock or depositary shares are exercised, holders of the warrants will not have any rights of holders of the underlying common stock, preferred stock or depositary shares, including any rights to receive dividends or to exercise any voting rights, except to the extent set forth under **Warrant Adjustments** below.

Exercise of Warrants

Each holder of a warrant is entitled to purchase the principal amount of debt securities or number of shares of common stock, preferred stock or depositary shares, as the case may be, at the exercise price described in the applicable prospectus supplement. After the close of business on the day when the right to exercise terminates (or a later date if we extend the time for exercise), unexercised warrants will become void.

A holder of warrants may exercise them by following the general procedure outlined below:

delivering to the warrant agent the payment required by the applicable prospectus supplement to purchase the underlying security;

properly completing and signing the reverse side of the warrant certificate representing the warrants; and

delivering the warrant certificate representing the warrants to the warrant agent within five business days of the warrant agent receiving payment of the exercise price.

If you comply with the procedures described above, your warrants will be considered to have been exercised when the warrant agent receives payment of the exercise price, subject to the transfer books for the securities issuable upon exercise of the warrant not being closed on such date. After you have completed those procedures and subject to the foregoing, we will, as soon as practicable, issue and deliver to you the debt securities, common stock or preferred stock that you purchased upon exercise. If you exercise fewer than all of the warrants represented by a warrant certificate, a new warrant certificate will be issued to you for the unexercised amount of warrants. Holders of warrants will be required to pay any tax or governmental charge that may be imposed in connection with transferring the underlying securities in connection with the exercise of the warrants.

Amendments and Supplements to the Warrant Agreements

We may amend or supplement a warrant agreement without the consent of the holders of the applicable warrants to cure ambiguities in the warrant agreement, to cure or correct a defective provision in the warrant agreement, or to provide for other matters under the warrant agreement that we and the warrant agent deem necessary or desirable, so long as, in each case, such amendments or supplements do not harm the interests of the holders of the warrants.

Warrant Adjustments

Unless the applicable prospectus supplement states otherwise, the exercise price of, and the number of securities covered by, a common stock warrant or preferred stock warrant will be adjusted proportionately if we subdivide or combine our common stock or preferred stock, as applicable. In addition, unless the prospectus supplement states otherwise, if we, without payment therefor:

issue capital stock or other securities convertible into or exchangeable for common stock or preferred stock, or any rights to subscribe for, purchase or otherwise acquire any of the foregoing, as a dividend or distribution to holders of our common stock or preferred stock;

Table of Contents

pay any cash to holders of our common stock or preferred stock other than a cash dividend paid out of our current or retained earnings or other than in accordance with the terms of the preferred stock;

issue any evidence of our indebtedness or rights to subscribe for or purchase our indebtedness to holders of our common stock or preferred stock; or

issue common stock or preferred stock or additional stock or other securities or property to holders of our common stock or preferred stock by way of spinoff, split-up, reclassification, combination of shares or similar corporate rearrangement, then the holders of common stock warrants and preferred stock warrants, as applicable, will be entitled to receive upon exercise of the warrants, in addition to the securities otherwise receivable upon exercise of the warrants and without paying any additional consideration, the amount of stock and other securities and property such holders would have been entitled to receive had they held the common stock or preferred stock, as applicable, issuable under the warrants on the dates on which holders of those securities received or became entitled to receive such additional stock and other securities and property.

Except as stated above, the exercise price and number of securities covered by a common stock warrant or preferred stock warrant, and the amounts of other securities or property to be received, if any, upon exercise of those warrants, will not be adjusted or provided for if we issue those securities or any securities convertible into or exchangeable for those securities, or securities carrying the right to purchase those securities or securities convertible into or exchangeable for those securities.

Holders of common stock warrants and preferred stock warrants may have additional rights under the following circumstances:

certain reclassifications, capital reorganizations or changes of the common stock or preferred stock, as applicable;

certain share exchanges, mergers, or similar transactions involving us and which result in changes of the common stock or preferred stock, as applicable; or

certain sales or dispositions to another entity of all or substantially all of our property and assets.

If one of the above transactions occurs and holders of our common stock or preferred stock are entitled to receive stock, securities or other property with respect to or in exchange for their securities, the holders of the common stock warrants and preferred stock warrants then outstanding, as applicable, will be entitled to receive upon exercise of their warrants the kind and amount of shares of stock and other securities or property that they would have received upon the applicable transaction if they had exercised their warrants immediately before the transaction.

Table of Contents

LEGAL OWNERSHIP OF SECURITIES

We can issue securities in registered form or in the form of one or more global securities. We describe global securities in greater detail below. We refer to those persons who have securities registered in their own names on the books that we or any applicable trustee or depository or warrant agent maintain for this purpose as the holders of those securities. These persons are the legal holders of the securities. We refer to those persons who, indirectly through others, own beneficial interests in securities that are not registered in their own names, as indirect holders of those securities. As we discuss below, indirect holders are not legal holders, and investors in securities issued in book-entry form or in street name will be indirect holders.

Book-Entry Holders

We may issue securities in book-entry form only, as we will specify in the applicable prospectus supplement. This means securities may be represented by one or more global securities registered in the name of a financial institution that holds them as depository on behalf of other financial institutions that participate in the depository's book-entry system. These participating institutions, which are referred to as participants, in turn, hold beneficial interests in the securities on behalf of themselves or their customers.

Only the person in whose name a security is registered is recognized as the holder of that security. Global securities will be registered in the name of the depository. Consequently, for global securities, we will recognize only the depository as the holder of the securities, and we will make all payments on the securities to the depository. The depository passes along the payments it receives to its participants, which in turn pass the payments along to their customers who are the beneficial owners. The depository and its participants do so under agreements they have made with one another or with their customers; they are not obligated to do so under the terms of the securities.

As a result, investors in a global security will not own securities directly. Instead, they will own beneficial interests in a global security, through a bank, broker or other financial institution that participates in the depository's book-entry system or holds an interest through a participant. As long as the securities are issued in global form, investors will be indirect holders, and not holders, of the securities.

Street Name Holders

We may terminate a global security or issue securities that are not issued in global form. In these cases, investors may choose to hold their securities in their own names or in street name. Securities held by an investor in street name would be registered in the name of a bank, broker or other financial institution that the investor chooses, and the investor would hold only a beneficial interest in those securities through an account he or she maintains at that institution.

For securities held in street name, we or any applicable trustee or depository will recognize only the intermediary banks, brokers and other financial institutions in whose names the securities are registered as the holders of those securities, and we or any such trustee or depository will make all payments on those securities to them. These institutions pass along the payments they receive to their customers who are the beneficial owners, but only because they agree to do so in their customer agreements or because they are legally required to do so. Investors who hold securities in street name will be indirect holders, not holders, of those securities.

Legal Holders

Our obligations, as well as the obligations of any applicable trustee or third party employed by us or a trustee, run only to the legal holders of the securities. We do not have obligations to investors who hold beneficial interests in global securities, in street name or by any other indirect means. This will be the case whether an investor chooses to be an indirect holder of a security or has no choice because we are issuing the securities only in global form.

For example, once we make a payment or give a notice to the holder, we have no further responsibility for the payment or notice even if that holder is required, under agreements with its participants or customers or by law, to pass it along to the indirect holders but does not do so. Similarly, we may want to obtain the approval of the holders to amend an indenture, to relieve us of the consequences of a default or of our obligation to comply with a particular provision of an indenture, or for other purposes. In such an event, we would seek approval only from the holders, and not the indirect holders, of the securities. Whether and how the holders contact the indirect holders is up to the holders.

Special Considerations For Indirect Holders

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

If you hold securities through a bank, broker or other financial institution, either in book-entry form because the securities are represented by one or more global securities or in street name, you should check with your own institution to find out:

how it handles securities payments and notices;

whether it imposes fees or charges;

Table of Contents

how it would handle a request for the holders' consent, if ever required;

whether and how you can instruct it to send you securities registered in your own name so you can be a holder, if that is permitted in the future;

how it would exercise rights under the securities if there were a default or other event triggering the need for holders to act to protect their interests; and

if the securities are global securities, how the depositary's rules and procedures will affect these matters.

Global Securities

A global security is a security which represents one or any other number of individual securities held by a depositary. Generally, all securities represented by the same global securities will have the same terms.

Each security issued in book-entry form will be represented by a global security that we issue to, deposit with and register in the name of a financial institution or its nominee that we select. The financial institution that we select for this purpose is called the depositary. Unless we specify otherwise in the applicable prospectus supplement, The Depository Trust Company, New York, New York, known as DTC, will be the depositary for all global securities issued under this prospectus.

A global security may not be transferred to or registered in the name of anyone other than the depositary, its nominee or a successor depositary, unless special termination situations arise. We describe those situations below under "Special Situations When a Global Security Will Be Terminated." As a result of these arrangements, the depositary, or its nominee, will be the sole registered owner and holder of all securities represented by a global security, and investors will be permitted to own only beneficial interests in a global security. Beneficial interests must be held by means of an account with a broker, bank or other financial institution that in turn has an account with the depositary or with another institution that does. Thus, an investor whose security is represented by a global security will not be a holder of the security, but only an indirect holder of a beneficial interest in the global security.

If the prospectus supplement for a particular security indicates that the security will be issued as a global security, then the security will be represented by a global security at all times unless and until the global security is terminated. If termination occurs, we may issue the securities through another book-entry clearing system or decide that the securities may no longer be held through any book-entry clearing system.

Special Considerations For Global Securities

As an indirect holder, an investor's rights relating to a global security will be governed by the account rules of the investor's financial institution and of the depositary, as well as general laws relating to securities transfers. We do not recognize an indirect holder as a holder of securities and instead deal only with the depositary that holds the global security.

If securities are issued only as a global security, an investor should be aware of the following:

An investor cannot cause the securities to be registered in his or her name, and cannot obtain non-global certificates for his or her interest in the securities, except in the special situations we describe below;

An investor will be an indirect holder and must look to his or her own bank or broker for payments on the securities and protection of his or her legal rights relating to the securities, as we describe above;

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

An investor may not be able to sell interests in the securities to some insurance companies and to other institutions that are required by law to own their securities in non-book-entry form;

An investor may not be able to pledge his or her interest in the global security in circumstances where certificates representing the securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective;

The depositary's policies, which may change from time to time, will govern payments, transfers, exchanges and other matters relating to an investor's interest in the global security. We and any applicable trustee have no responsibility for any aspect of the depositary's actions or for its records of ownership interests in the global security. We and the trustee also do not supervise the depositary in any way;

The depositary may, and we understand that DTC will, require that those who purchase and sell interests in the global security within its book-entry system use immediately available funds, and your broker or bank may require you to do so as well; and

Financial institutions that participate in the depositary's book-entry system, and through which an investor holds its interest in the global security, may also have their own policies affecting payments, notices and other matters relating to the securities. There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the actions of any of those intermediaries.

Table of Contents

Special Situations When A Global Security Will Be Terminated

In a few special situations described below, a global security will terminate and interests in it will be exchanged for physical certificates representing those interests. After that exchange, the choice of whether to hold securities directly or in street name will be up to the investor. Investors must consult their own banks or brokers to find out how to have their interests in securities transferred to their own name, so that they will be direct holders. We have described the rights of holders and street name investors above.

A global security will terminate when the following special situations occur:

if the depositary notifies us that it is unwilling, unable or no longer qualified to continue as depositary for that global security and we do not appoint another institution to act as depositary within 90 days;

if we notify any applicable trustee that we wish to terminate that global security; or

if an event of default has occurred with regard to securities represented by that global security and has not been cured or waived. The prospectus supplement may also list additional situations for terminating a global security that would apply only to the particular series of securities covered by the prospectus supplement. When a global security terminates, the depositary, and not we or any applicable trustee, is responsible for deciding the names of the institutions that will be the initial direct holders.

Table of Contents

PLAN OF DISTRIBUTION

We may sell the securities covered by this prospectus in any of three ways (or in any combination):

to or through underwriters or dealers;

directly to a limited number of purchasers or to a single purchaser; or

through agents.

We may also sell directly to investors through subscription rights distributed to our stockholders on a pro rata basis. In connection with any distribution of subscription rights to stockholders, if all of the underlying securities are not subscribed for, we may sell the unsubscribed shares of our common stock directly to third parties or may engage the services of one or more underwriters, dealers or agents, including standby underwriters, to sell the unsubscribed securities to third parties.

The prospectus supplement will set forth the terms of the offering of the securities covered by this prospectus, including:

the name or names of any underwriters, dealers or agents and the amounts of securities underwritten or purchased by each of them;

any over-allotment options under which underwriters may purchase additional securities from us;

any underwriting discounts or commissions or agency fees and other items constituting underwriters' or agents' compensation;

the initial public offering price of the securities and the proceeds to us and any discounts, commissions or concessions allowed or reallocated or paid to dealers; and

any securities exchanges or markets on which the securities may be listed.

Only underwriters named in the prospectus supplement are underwriters of the securities offered by the prospectus supplement.

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

The distribution of our securities may be effected from time to time in one or more transactions at a fixed price or prices, which may be changed, at market prices prevailing at the time of sale, at prices related to such prevailing market prices, or at negotiated price, any of which may represent a discount from the prevailing market prices. If underwriters are used in the sale of any securities, the securities will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions described above. The securities may be either offered to the public through underwriting syndicates represented by managing underwriters, or directly by underwriters. Generally, the underwriters' obligations to purchase the securities will be subject to conditions precedent and the underwriters will be obligated to purchase all of the securities if they purchase any of the securities. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

We may engage in at-the-market offerings of our common stock. An at-the-market offering is an offering of our common stock at other than a fixed price to or through a market maker.

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

We may sell the securities directly or through agents we designate from time to time. The prospectus supplement will name any agent involved in the offer or sale of the securities and any commissions we pay to them. Generally, any agent will be acting on a best efforts basis for the period of its appointment.

We may authorize underwriters, dealers or agents to solicit offers by certain purchasers to purchase the securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. The contracts will be subject only to those conditions set forth in the prospectus supplement, and the prospectus supplement will set forth any commissions we pay for solicitation of these contracts.

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

In connection with the sale of our securities, underwriters or agents may receive compensation from us or from purchasers of the securities, for whom they may act as agents, in the form of discounts, concessions or commissions. Underwriters may sell securities to or through dealers, and these dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters and/or commissions from the purchasers for whom they may act as agents. Underwriters, dealers, and agents that participate in the distribution of securities may be deemed to be underwriters under the Securities Act, and any discounts or commissions they receive from us and any profit on the resale of securities they realize may be deemed to be underwriting discounts and commissions under the Securities Act.

Table of Contents

Unless otherwise specified in the related prospectus supplement, all securities we offer, other than common stock, will be new issues of securities with no established trading market. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We may apply to list any series of debt securities, preferred stock or warrants on an exchange, but we are not obligated to do so. Therefore, no assurance can be given as to the liquidity of, or the trading market for, any series of securities.

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

To comply with applicable state securities laws, the securities offered by this prospectus will be sold, if necessary, in such jurisdictions only through registered or licensed brokers or dealers. In addition, securities may not be sold in some states unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Any underwriters who are qualified market makers on the Nasdaq Global Market may engage in passive market making transactions in the common stock on the Nasdaq Global Market in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the common stock. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded.

Table of Contents

LEGAL MATTERS

The validity of the securities offered hereby will be passed upon for us by Heller Ehrman LLP, Seattle, Washington.

EXPERTS

Stonefield Josephson, Inc., an independent registered public accounting firm, has audited our consolidated financial statements and consolidated financial statement schedule at December 31, 2007, and for each of the three years in the period ended December 31, 2007, included in our Annual Report on Form 10-K for the year ended December 31, 2007, 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.

Table of Contents

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the information requirements of the Securities Exchange Act of 1934 (hereinafter the Exchange Act). In accordance with the Exchange Act, we file reports, proxy statements and other information with the SEC. You may read and copy any reports, statements and other information filed by us at the SEC's Public Reference Room 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. The SEC maintains an Internet site at <http://www.sec.gov> that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC.

We make available, free of charge, through our investor relations website, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, statements of changes in beneficial ownership of securities and amendments to those reports and statements as soon as reasonably practicable after they are filed with the SEC. We also make available on our website other important information such as press releases, presentations from investor and medical conferences, as well as other information about our company. The address for our website is <http://www.celltherapeutics.com> and the address for the investor relations page of our website is <http://www.celltherapeutics.com/investors>. The contents of our website are not part of this prospectus, and the reference to our website does not constitute incorporation by reference into this prospectus of the information contained at that site.

Our common stock is listed on the Nasdaq Global Market and such reports, proxy statements and other information concerning us may be inspected at the offices of The Nasdaq Stock Market, 1735 K Street, N.W., Washington, D.C. 20006.

SEC rules allow us to incorporate by reference into this prospectus the information we file with the SEC. This means that we can disclose important information by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus. Information that we file later with the Commission will automatically update and supersede this information. We incorporate by reference the documents listed below:

our Annual Report on Form 10-K for the fiscal year ended December 31, 2007, as amended;

our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2008 and June 30, 2008;

our definitive Proxy Statements on Schedule 14A, dated and filed with the SEC on August 28, 2007 for our 2007 Annual Meeting of Shareholders and on December 21, 2007 for our Special Meeting of the Shareholders;

our Current Reports on Form 8-K, and Amended Current Reports filed on Form 8-K/A, filed on January 3, 2008, January 14, 2008, January 18, 2008, January 29, 2008, February 5, 2008, February 19, 2008, March 5, 2008, March 11, 2008, March 21, 2008, April 4, 2008, April 18, 2008, April 30, 2008, May 2, 2008, June 13, 2008, June 20, 2008, June 24, 2008, July 25, 2008, July 30, 2008, August 6, 2008, August 20, 2008 and September 4, 2008; and

The description of our capital stock contained in our Registration Statements on Form 10 filed with the SEC on June 27, 1996 and June 28, 1996, including any amendment or reports filed for the purpose of updating that description.

In addition, we also incorporate by reference into this prospectus additional information that we may subsequently file with the Securities and Exchange Commission under Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act prior to the termination of the offering. These documents include Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

Notwithstanding the foregoing, unless specifically stated to the contrary, none of the information that we disclose under Items 2.02 or 7.01 of any Current Report on Form 8-K that we may from time to time furnish to the Securities and Exchange Commission will be incorporated by reference into, or otherwise included in, this prospectus.

We are subject to the information and reporting requirements of the Exchange Act, and file periodic reports, proxy statements and we make available to our stockholders annual reports containing audited financial information for each year and quarterly reports for the first three quarters of each fiscal year containing unaudited interim financial information.

Edgar Filing: CELL THERAPEUTICS INC - Form 424B5

We will provide without charge to each person, including any beneficial owner of CTI common stock, to whom this prospectus is delivered, upon written or oral request, a copy of any and all of the documents that have been incorporated by reference in the prospectus but not delivered with this prospectus (without exhibits, unless the exhibits are specifically incorporated by reference but not delivered with this prospectus). Requests should be directed to:

Louis A. Bianco

Executive Vice President, Finance and Administration

Cell Therapeutics, Inc.

501 Elliott Avenue West, Suite 400

Seattle, Washington 98119

(206) 282-7100