

CELL THERAPEUTICS INC
Form 424B2
October 04, 2012
Table of Contents

Filed Pursuant to Rule 424(b)(2)
File No. 333-183037

The information contained in this preliminary prospectus supplement and the accompanying prospectus is not complete and may be changed. A registration statement relating to the securities has been declared effective by the Securities and Exchange Commission. This preliminary prospectus supplement and the accompanying prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED OCTOBER 4, 2012

PROSPECTUS SUPPLEMENT

(to Prospectus dated August 29, 2012)

40,000 Shares of Series 17 Preferred Stock

CELL THERAPEUTICS, INC.

We are offering 40,000 shares of Series 17 Preferred Stock (and _____ shares of common stock issuable upon conversion thereof). The Series 17 Preferred Stock will not be listed on any national securities exchange.

Conversion

Each share of Series 17 Preferred Stock can be converted at the holder's option at any time after issuance into the number of shares of common stock determined by dividing the aggregate stated value of the Series 17 Preferred Stock of \$1,000 per share to be converted by the conversion price, which is initially \$ _____. The initial conversion price is subject to adjustment in certain events (including certain fundamental changes), which are explained in more detail under the section entitled "Description of the Securities We are Offering."

On the first to occur of (i) the 30th day after the original issuance date of the Series 17 Preferred Stock and (ii) the date on which 5,000 or less shares of Series 17 Preferred Stock remain outstanding, all outstanding shares of Series 17 Preferred Stock shall automatically convert into the number of shares of common stock determined by dividing the aggregate stated value of the Series 17 Preferred Stock being converted by the conversion price then in effect. We cannot effect a conversion of the Series 17 Preferred Stock, and no holder may request a conversion of its Series 17 Preferred Stock, to the extent such conversion would result in the holder and its affiliates beneficially owning more than 4.99% of our common stock, provided that a holder may elect to increase the maximum conversion threshold to 9.99% of our common stock by providing us with 61 days' prior notice. In addition, in the event of an automatic conversion, the maximum conversion threshold will increase to 19.99% without any further action on the part of a holder.

Ranking and Liquidation Preference

Shares of Series 17 Preferred Stock rank senior to our common stock. In the event of our voluntary or involuntary dissolution, liquidation or winding up, each holder of Series 17 Preferred Stock will be entitled to be paid a liquidation preference equal to the initial stated value of such holder's Series 17 Preferred Stock of \$1,000 per share, plus any declared and unpaid dividends and any other payments that may be due on such shares, before any distribution of assets may be made to holders of capital stock ranking junior to the Series 17 Preferred Stock.

Voting Rights

Edgar Filing: CELL THERAPEUTICS INC - Form 424B2

The Series 17 Preferred Stock will have no voting rights, except as otherwise expressly provided in our articles of incorporation or as otherwise required by law.

Common Stock Listing

Our common stock is quoted on The NASDAQ Capital Market and on the Mercato Telematico Azionario stock market, or the MTA, in Italy under the symbol CTIC. On October 3, 2012, the last reported sale price of our common stock on The NASDAQ Capital Market was \$2.36 per share.

Investing in our securities involves a high degree of risk. Please read Risk Factors beginning on page S-9 of this prospectus supplement and in the documents incorporated by reference into 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 or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	PER SHARE ⁽¹⁾	TOTAL
Public Offering Price	\$	\$
Underwriting Discounts and Commissions	\$	\$
Proceeds to Cell Therapeutics, Inc., before expenses	\$	\$

⁽¹⁾ Excludes shares of common stock issuable upon conversion of the Series 17 Preferred Stock offered hereby. Delivery of the Series 17 Preferred Stock is expected to be made on or about October , 2012.

Sole Book-Running Manager

Jefferies

Co-Managers

Roth Capital Partners

Prospectus Supplement dated October , 2012.

ThinkEquity LLC

Table of Contents

TABLE OF CONTENTS

<u>Prospectus Supplement</u>	PAGE
<u>About This Prospectus Supplement</u>	S-1
<u>Where You Can Find More Information</u>	S-1
<u>Incorporation of Certain Documents By Reference</u>	S-2
<u>Special Note Regarding Forward-looking Statements</u>	S-3
<u>Summary</u>	S-4
<u>Risk Factors</u>	S-9
<u>Use of Proceeds</u>	S-12
<u>Dilution</u>	S-13
<u>Determination of Offering Price</u>	S-14
<u>Ratio Of Earnings to Combined Fixed Charges and Preferred Stock Dividends</u>	S-15
<u>Dividend Policy</u>	S-16
<u>Description of the Securities We Are Offering</u>	S-17
<u>Description of Capital Stock</u>	S-21
<u>Underwriting</u>	S-23
<u>Notice to Investors</u>	S-26
<u>Certain U.S. Federal Income Tax Considerations</u>	S-30
<u>Legal Matters</u>	S-30
<u>Experts</u>	S-30

<u>Prospectus dated August 2, 2012</u>	PAGE
<u>About This Prospectus</u>	1
<u>Where You Can Find More Information</u>	1
<u>Incorporation of Certain Documents by Reference</u>	2
<u>Special Note Regarding Forward-looking Statements</u>	3
<u>Information About the Company</u>	3
<u>Risk Factors</u>	4
<u>Ratio of Earnings to Fixed Charges and of Earnings to Combined Fixed Charges and Preferred Stock Dividends</u>	4
<u>Use of Proceeds</u>	4
<u>Dividend Policy</u>	5
<u>Description of Capital Stock</u>	5
<u>Description of Debt Securities</u>	9
<u>Description of Warrants</u>	16
<u>Description of Rights</u>	20
<u>Description of Units</u>	21
<u>Plan of Distribution</u>	22
<u>Legal Matters</u>	26
<u>Experts</u>	26

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

We are not making an offer of the Series 17 Preferred Stock (or the shares of common stock issuable from time to time upon conversion of the Series 17 Preferred Stock) covered by this prospectus supplement in any jurisdiction where the offer is not permitted.

The information contained in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference is accurate only as of its respective date, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus, or of any sale of the Series 17 Preferred Stock (or shares of common stock issuable upon conversion of the Series 17 Preferred Stock). You should not assume that the information contained in or incorporated by reference in this prospectus supplement or the accompanying prospectus is accurate as of any date other than the respective dates thereof.

Table of Contents

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus relate to the offering of 40,000 shares of our Series 17 Preferred Stock (and shares of our common stock issuable upon conversion thereof). You should read this prospectus supplement, the accompanying prospectuses and the documents incorporated by reference before making an investment decision. You should also read and consider the information in the documents we have referred to in the section of this prospectus supplement entitled "Incorporation of Certain Documents by Reference."

This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of this offering of the Series 17 Preferred Stock and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference. The second part is the accompanying prospectus, which gives more general information, some of which may not apply to this offering. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or any document incorporated by reference, on the other hand, you should rely on the information in this prospectus supplement.

We have not, and the underwriters have not, authorized any other person to provide you with information that is different. If anyone provides you with different or inconsistent information, you should not rely on it.

We are offering to sell, and seeking offers to buy, the Series 17 Preferred Stock only in jurisdictions where offers and sales are permitted.

The information contained in or incorporated by reference in this prospectus supplement or the accompanying prospectus is accurate only as of the respective dates of the applicable documents. Our business, financial condition, results of operations and prospects may have changed since those dates.

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

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the information requirements of the Securities Exchange Act of 1934, or the Exchange Act, as amended. In accordance with the Exchange Act, we file reports, proxy statements and other information with the Securities and Exchange Commission, or the SEC. Such reports, proxy statements and other information filed by us are available to the public free of charge at www.sec.gov. Copies of certain information filed by us with the SEC are also available on our website at www.celltherapeutics.com. With the exception of the reports specifically incorporated by reference in this prospectus supplement as set forth below, material contained on or accessible through our website is specifically not incorporated into this prospectus supplement. You may also read and copy any document we file with the SEC at the public reference facilities maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the public reference facilities by calling the SEC at 1-800-SEC-0330.

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

Table of Contents

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

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

our Annual Report on Form 10-K for the fiscal year ended December 31, 2011 filed with the SEC on March 8, 2012;

our Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2012 and June 30, 2012 filed with the SEC on April 20, 2012 and August 2, 2012, respectively;

our Current Reports on Form 8-K filed with the SEC on January 3, 2012 (Item 8.01 only), January 12, 2012, January 30, 2012 (Item 8.01 only), February 2, 2012, February 15, 2012 (Item 1.01 and Exhibit 10.1 only), February 17, 2012 (Item 8.01 only), April 24, 2012 (Items 1.01 and 3.02 and Exhibits 10.1, 10.2 and 10.3 only), May 14, 2012 (Item 8.01 only), May 31, 2012 (Items 1.01, 3.03 and 5.03 only), June 5, 2012 (Items 1.01, 2.01, 3.02 and 5.02 only), June 20, 2012, June 22, 2012, June 29, 2012 (Item 3.01 only), July 13, 2012, July 27, 2012, August 1, 2012 (Items 1.01, 3.03 and 5.03 only), August 8, 2012 (Item 8.01 only), August 31, 2012 (Items 3.03 and 5.03 only), September 4, 2012 (Items 1.01, 3.03, 5.02, 5.03 and 5.07 only) and September 7, 2012;

the description of our capital stock contained in our Registration Statement on Form 10 filed with the SEC on June 27, 1996, as amended; and

the description of our Preferred Stock Purchase Rights contained in our Registration Statement on Form 8-A filed with the SEC on December 28, 2009, Amendment No. 1. to Form 8-A filed with the SEC on May 17, 2011 and Registration Statement on Form 8-A filed with the SEC on September 6, 2012 and any other amendment or report filed for the purpose of updating such description.

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

We will provide without charge to each person, including any beneficial owners, to whom this prospectus supplement is delivered, upon his or her written or oral request, a copy of any or all documents referred to above which have been or may be incorporated by reference into this prospectus supplement and the accompanying prospectus but not delivered with this prospectus supplement, excluding exhibits to those documents unless they are specifically incorporated by reference into those documents. You may request a copy of these documents by writing or telephoning us at the following address:

Cell Therapeutics, Inc.

3101 Western Avenue, Suite 600

Seattle, Washington 98121

(206) 282-7100

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the documents incorporated by reference may contain forward-looking statements within the meaning under the U.S. federal securities laws. All statements other than statements of historical fact are forward-looking statements, including, without limitation:

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

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

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

any statements concerning proposed new products or services;

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

any statements regarding the launch of Pixuvri in any jurisdiction;

any statements regarding the ability of Pixuvri to prove safe and effective for the treatment of relapsed or refractory aggressive B-cell non-Hodgkin's lymphoma, or NHL, and/or other tumors as determined by the U.S. Food and Drug Administration, or the FDA, and/or the European Commission and the European Medicines Agency, or the EMA;

any statements regarding the ability of tosedostat to prove safe and effective for the treatment of patients with relapsed/refractory acute myeloid leukemia or myelodysplastic syndromes as determined by the FDA and/or the EMA;

any statements regarding timing of or plan for the phase III clinical trial of tosedostat;

any statements regarding the ability of pacritinib to prove safe and effective for the treatment of patients with myelofibrosis as determined by the FDA and/or the EMA, satisfy a medical need not currently addressed with existing non-selective JAK1/JAK2 inhibitors, or be differentiated due to its high target selectivity;

any statements regarding the performance, or likely performance, or outcomes or economic benefit of any licensing or other agreement, including any agreement with Novartis International Pharmaceutical Ltd., or Novartis, or its affiliates, or Chroma Therapeutics Ltd., or its affiliates, including whether or not such partner will elect to participate, terminate or otherwise make elections under any such agreement or whether any regulatory authorizations required to enable such agreement will be obtained;

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

Edgar Filing: CELL THERAPEUTICS INC - Form 424B2

any statements regarding pending or future mergers or acquisitions; and

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

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

S-3

Table of Contents

SUMMARY

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

Our Company

We develop, acquire and commercialize novel treatments for cancer. Our goal is to build a leading biopharmaceutical company with a diversified portfolio of proprietary oncology drugs. Our research, development, acquisition and in-licensing activities concentrate on identifying and developing new, less toxic and more effective ways to treat cancer. Our operations are primarily conducted in the United States. We are currently focusing our efforts predominantly on Pixuvri (pixantrone), pacritinib, and tosedostat. In addition, the Company has partnered with National Institutes of Health sponsored cooperative groups to advance the development of OPAXIO (paclitaxel poliglumex) and brostallicin.

Corporate Information

We were incorporated in the State of Washington in 1991. Our shares of common stock trade on The NASDAQ Capital Market and the MTA in Italy under the symbol CTIC. Our principal executive offices are located at 3101 Western Avenue, Suite 600, Seattle, Washington 98121, and our phone number is (206) 282-7100. Our website is located at www.celltherapeutics.com; however, the information in, or that can be accessed through, our website is not part of this prospectus supplement or the accompanying prospectus.

Recent Developments

Pixuvri

Commercial Launch in Europe

On February 17, 2012, Pixuvri was granted a positive opinion for conditional approval from the EMA's Committee for Medicinal Products for Human Use, or the CHMP. On May 10, 2012, Pixuvri received conditional marketing authorization in the European Union from the European Commission as monotherapy for the treatment of adult patients with multiply relapsed or refractory aggressive NHL. The decision allows us to market Pixuvri in the 27 Member States of the European Union as well as in Iceland, Liechtenstein and Norway.

In September 2012, we initiated the commercial launch of Pixuvri in the European Union with entry into Sweden, Denmark and Finland. We expect to initiate the commercial launch of Pixuvri in Austria and Norway in early October 2012 and in Germany, United Kingdom and the Netherlands in November 2012. We plan to expand availability of Pixuvri to France, Italy and Spain as well as other European countries in 2013.

Similar to accelerated approval regulations in the United States, conditional marketing authorizations are granted in the European Union to medicinal products with a positive benefit/risk assessment that address unmet medical needs and whose availability would result in a significant public health benefit. A conditional marketing authorization is renewable annually. Under the provisions of the conditional marketing authorization for Pixuvri, we will be required to complete a post-marketing study aimed at confirming the clinical benefit previously observed.

The CHMP has accepted PIX306, our ongoing randomized controlled phase III clinical trial, which compares Pixuvri-rituximab to gemcitabine-rituximab in patients who have relapsed after one to three prior regimens for

Table of Contents

aggressive B-cell NHL and who are not eligible for autologous stem cell transplant. As a condition of approval, we have agreed to have the PIX306 clinical trial results available by June 2015.

Regulatory Approval in the United States

In December 2010, we filed a Formal Dispute Resolution Request, or FDRR, with the FDA's Office of New Drugs, or the OND, in response to a Complete Response Letter, or CRL, we received in April 2010 from the FDA's Office of Oncology Drug Products. The CRL stated that our pivotal trial PIX301 failed to meet its primary endpoint and that we needed to conduct additional studies before Pixuvri could be considered for approval. In April 2010, we received a response from the OND on our FDRR, which indicated that accelerated approval of our New Drug Application, or NDA, is not necessarily out of reach based on a single controlled clinical trial, provided that two key issues can be resolved satisfactorily. First, the circumstances of stopping the PIX301 trial early must be resolved to assure that ongoing results assessments were not dictating the decision to stop. Second, ascertainment of the primary endpoint in the PIX301 trial must be determined to have been sound and not subject to bias.

We resubmitted our NDA in October 2011 with information that we believe addressed both of the OND's recommendations. The FDA scheduled the NDA for review by the Oncologic Drugs Advisory Committee, or ODAC, at its February 2012 meeting. On January 30, 2012, following discussions with the FDA, we voluntarily withdrew our resubmitted NDA for Pixuvri because we needed additional time to prepare for the review of the NDA by ODAC. Prior to withdrawing the NDA, we requested that the FDA consider rescheduling the ODAC's review of the NDA to an ODAC meeting to be held in late March 2012. The FDA was unable to accommodate our request to reschedule, and given the April 24, 2012 Prescription Drug User Fee Act (PDUFA) date for Pixuvri, the only way to have Pixuvri possibly considered at a later ODAC meeting was to withdraw and later resubmit the NDA.

Prior to resubmitting our NDA in October 2011, we discussed with the FDA whether our ongoing PIX306 trial, which compares Pixuvri in combination with rituximab to gemcitabine rituximab combination in patients with relapsed/refractory diffuse large B-cell lymphoma, could serve as either a post marketing confirmatory study, if Pixuvri were to be approved on the basis of the PIX301 results, or as a registration study for approval in the United States. Enrollment in PIX306 is underway at more than 100 sites in the United States and we expect approximately 20 sites in the European Union will join PIX306 during the second half of 2012 and in 2013. We are planning to meet with regulatory authorities in early 2013 to discuss our resubmission strategy, which we would like to include data generated from our ongoing PIX-R® trial, or PIX306, phase III study. We cannot assure you as to the timing of the resubmission of the NDA.

Pacritinib

We expect the first phase III clinical trial for pacritinib to initiate in the fourth quarter of 2012 and the second phase III clinical trial to initiate in the second quarter of 2013. Pacritinib is an oral, once a day, tyrosine kinase inhibitor, or TKI, with dual activity against Janus kinase 2 (commonly referred to as JAK2) and FMS-like tyrosine kinase 3, or FLT3. Mutations in these kinases have been shown to be directly related to the development of a variety of blood related cancers including myeloproliferative neoplasms, leukemia, and lymphoma. In May 2012, we acquired certain intellectual property and other assets related to pacritinib from S*Bio Pte Ltd.

OPAXIO

In September 2012, OPAXIO (paclitaxel poliglumex) was granted orphan-drug designation by the FDA for the treatment of glioblastoma multiforme, a malignant brain cancer.

Unaudited Interim Cash Positions

As of August 31, 2012, we had no debt outstanding and approximately \$19.3 million in cash and cash equivalents. We will report our unaudited cash and cash equivalents as of September 30, 2012 after we have completed our regular quarterly review procedures for the quarter then ending.

Table of Contents

The Offering

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

Securities we are offering

Series 17 Preferred Stock 40,000 shares of Series 17 Preferred Stock and the approximately _____ shares of common stock issuable from time to time upon conversion of the Series 17 Preferred Stock.

Purchase price The purchase price for each share of Series 17 Preferred Stock is \$ _____.
 Description of the Series 17 Preferred Stock

Rank The Series 17 Preferred Stock will, with respect to rights upon our liquidation, dissolution or winding up, rank senior to our common stock and, so long as at least 20% of the aggregate originally issued shares of Series 17 Preferred Stock are outstanding, we may not repay, repurchase or offer to repay or repurchase or otherwise acquire any material amount of common stock or other securities junior to the Series 17 Preferred Stock except for repurchases of up to 5,750,000 shares of common stock in any 12-month period from employees, officers, directors, consultants or others who perform services for us and who are subject to an agreement with us providing a right of repurchase of such shares at cost or on the occurrence of certain events, such as termination of employment. The Series 17 Preferred Stock ranks *pari passu* with our common stock with respect to dividends.

Dividends Holders of the Series 17 Preferred Stock are entitled to receive dividends equal (on an as if converted to common stock basis) to and in the same form as dividends actually paid on shares of common stock or other junior securities, as and if such dividends are paid. We have never declared or paid any cash dividends on our common stock and do not currently anticipate declaring or paying cash dividends on our common stock in the foreseeable future. See Dividend Policy.

Optional conversion Each share of Series 17 Preferred Stock can be converted at the holder's option at any time after issuance into the number of shares of common stock determined by dividing (i) the stated value of the Series 17 Preferred Stock of \$1,000 per share to be converted, by (ii) the conversion price, which is initially \$ _____. The initial conversion price is subject to adjustment in certain events (including certain fundamental changes), which are explained in more detail under the section entitled Description of the Securities We are Offering.

Automatic conversion On the first to occur of (i) the 30th day after the original issuance date of the Series 17 Preferred Stock, (ii) the date on which

Table of Contents

5,000 or less shares of Series 17 Preferred Stock remain outstanding or (iii) the adoption by our board of directors of a resolution that it intends to adopt an amendment to our amended and restated articles of incorporation, as amended, or our articles of incorporation, without shareholder approval to effect a reverse stock split with respect to our common stock in order to achieve compliance with the listing rules of The NASDAQ Capital Market or for other good faith business reasons, all outstanding shares of Series 17 Preferred Stock shall automatically convert into the number of shares of common stock determined by dividing (i) the aggregate stated value of the Series 17 Preferred Stock being converted, by (ii) the conversion price then in effect, subject only to the limitations on conversion described below.

Limitations on conversion

We cannot effect a conversion of the Series 17 Preferred Stock, and no holder may request a conversion of its Series 17 Preferred Stock, to the extent such conversion would result in the holder and its affiliates beneficially owning more than 4.99% of our common stock, provided that a holder may elect to increase the maximum conversion threshold to 9.99% of our common stock by providing us with 61 days prior notice. In addition, in the event of an automatic conversion, the maximum conversion threshold will increase to 19.99% without any further action on the part of a holder.

Liquidation preference

In the event of our voluntary or involuntary dissolution, liquidation or winding up, each holder of Series 17 Preferred Stock will be entitled to be paid a liquidation preference equal to the initial stated value of such holder's Series 17 Preferred Stock of \$1,000 per share, plus declared and unpaid dividends and any other payments that may be due on such shares, before any distribution of assets may be made to holders of capital stock ranking junior to the Series 17 Preferred Stock.

Voting rights

The Series 17 Preferred Stock will have no voting rights, except as otherwise expressly provided in our articles of incorporation or as otherwise required by law. However, so long as at least 20% of the aggregate originally issued shares of Series 17 Preferred Stock are outstanding, we cannot amend our articles of incorporation, our second amended and restated bylaws, or our bylaws, or other charter documents in each case so as to materially, specifically and adversely affect the rights of the Series 17 Preferred Stock; to repay, repurchase or offer to repay or repurchase or otherwise acquire any of our common stock, common stock equivalents, or other securities junior to the Series 17 Preferred Stock, except in certain limited circumstances; to authorize or create any class of senior preferred stock; or to enter into any agreement or understanding with respect to any of the foregoing, in each case without the affirmative written consent of holders of a majority of the outstanding shares of Series 17 Preferred Stock.

Table of Contents

Use of proceeds after expenses	We plan to use the net proceeds from this offering to support the launch of Pixuvri in Europe and to commence phase III trials of pacritinib as well as for general corporate purposes, which may include, among other things, funding research and development, preclinical and clinical trials, the preparation and filing of new drug applications, the acquisition of complementary businesses, technologies or products and general working capital.
Market for the Series 17 Preferred Stock	There is no established public trading market for the Series 17 Preferred Stock and we do not expect a market to develop. In addition, we do not intend to apply for listing the Series 17 Preferred Stock on any securities exchange.
Market for our common stock	Our common stock is quoted on The NASDAQ Capital Market and on the MTA stock market in Italy under the symbol CTIC. On October 3, 2012, the last reported sale price of our common stock on The NASDAQ Capital Market was \$2.36 per share.
Risk factors	See the Risk Factors section contained in this prospectus supplement and in the documents we incorporate by reference in this prospectus supplement and the accompanying prospectus to read about factors you should consider before investing in our securities.

Table of Contents

RISK FACTORS

*In addition to the risks described below, you should carefully consider the information under the heading **Risk Factors** beginning on page 33 of our **Quarterly Report on Form 10-Q** for the fiscal quarter ended June 30, 2012, filed with the SEC on August 2, 2012, which information is incorporated by reference into this prospectus supplement, and other information included in this prospectus supplement, the accompanying prospectus and reports we file from time to time with the SEC that we incorporate by reference herein for a discussion of factors you should carefully consider before deciding to invest in our securities. If any of the identified risks actually occur, it could materially adversely affect our business, financial condition, operating results or prospects and the trading price of our securities. Additional risks and uncertainties that we do not presently know or that we currently deem immaterial may also impair our business, financial condition, operating results and prospects and the trading price of our securities.*

Risks Related to this Offering

There is no public market for the Series 17 Preferred Stock being offered in this offering.

There is no established public trading market for the Series 17 Preferred Stock being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the Series 17 Preferred Stock on any securities exchange. Without an active market, the liquidity of the Series 17 Preferred Stock will be limited.

Purchasers who convert their shares of Series 17 Preferred Stock into common stock will incur immediate dilution.

Upon conversion of your shares of Series 17 Preferred Stock, you will experience immediate and substantial dilution because the per share conversion price of your shares of Series 17 Preferred Stock will be higher than the net tangible book value per share of the outstanding common stock immediately after this offering. Assuming that an aggregate of 40,000 shares of the Series 17 Preferred Stock are sold (and are then converted into 16,949,153 shares of our common stock assuming a conversion price of \$2.36 per share, which was the last reported sale price of our common stock on The NASDAQ Capital Market on October 3, 2012) for aggregate gross proceeds of approximately \$40.0 million, and after deducting commissions and estimated aggregate offering expenses payable by us, you will experience immediate dilution of \$1.86 per share, representing the difference between the assumed conversion price per share and our pro forma as adjusted net tangible book value per share as of June 30, 2012 after giving effect to this offering at the assumed size and offering price. In addition, you will experience dilution when we issue additional shares of common stock that we are permitted or required to issue under outstanding warrants and options under our stock option plan or other employee or director compensation plans.

Holders of the Series 17 Preferred Stock will have no rights as holders of common stock until they acquire common stock.

Until you acquire shares of common stock upon conversion of the Series 17 Preferred Stock, you will have no rights with respect to our common stock, other than the right of the convertible preferred stock to receive dividends equal to and on the same terms as dividends actually paid on common stock, including rights to vote or respond to tender offers. Upon conversion of your Series 17 Preferred Stock, you will be entitled to exercise the rights of a holder of common stock only as to matters for which the record date occurs after the conversion or exercise date, as applicable.

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

We will use the net proceeds from this offering for general corporate purposes. We may use a portion of the net proceeds from this offering to fund possible investments in, or acquisitions of, complementary businesses, technologies or products. See **Use of Proceeds**. We have not allocated specific amounts of the net proceeds from this offering for any specific purpose. Accordingly, our management will have significant flexibility in applying the net proceeds of this offering. You will be relying on the judgment of our management with regard to the use of 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

Risks Related to Holders of our Common Stock

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

Shares of common stock are common equity interests. This means that our common stock ranks junior to the Series 17 Preferred Stock and any other preferred stock that we may issue in the future, to our indebtedness and to all creditor claims and other non-equity claims against us and our assets available to satisfy claims on us, including claims in a bankruptcy or similar proceeding. Our existing and future indebtedness and our preferred stock may restrict payment of dividends on our common stock.

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

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

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

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

We are not restricted from issuing additional shares of common stock or preferred stock, including any securities that are convertible into or exchangeable for, or that represent the right to receive, shares of common stock or preferred stock, or any substantially similar securities. We expect to issue additional equity securities to fund our operating expenses as well as for other purposes. The market price of our shares of common stock or preferred stock could decline as a result of sales of a large number of shares of our common stock or preferred stock or similar securities in the market, or the perception that such sales could occur in the future. We cannot predict the effect that future sales of our common stock would have on the market price of our common stock.

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

The market price for securities of biopharmaceutical and biotechnology companies, including ours, historically has been highly volatile, and the market from time to time has experienced significant price and volume fluctuations that are unrelated to the operating performance of such companies. For example, during the 12-month period ended October 3, 2012, our stock price has ranged from a low of \$1.77 to a high of \$8.25, adjusting for our recent reverse stock split. 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 by us or others of serious adverse events that have occurred during treatment of patients following grant of conditional marketing authorization for Pixuvri in the European Union;

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

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

our quarterly operating results;

developments or disputes concerning patent or other proprietary rights;

S-10

Table of Contents

developments in our relationships with collaborative partners;

acquisitions or divestitures;

litigation and government proceedings;

adverse legislation, including changes in governmental regulation;

third-party reimbursement policies;

changes in securities analysts' recommendations;

short selling;

changes in health care policies and practices;

halting or suspension of trading in our common stock on The NASDAQ Capital Market by NASDAQ or on the MTA by Commissione Nazionale per le Società e la Borsa, or CONSOB, or the Borsa Italiana;

economic and other external factors; and

general market conditions.

In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been instituted. For example, in the case of our company, we and certain of our officers and directors are named as defendants in purported securities class action and shareholder derivative lawsuits brought on behalf of a putative class of purchasers of our securities from March 25, 2008 through March 22, 2010. These lawsuits seek unspecified damages and, as with any litigation proceeding, we cannot predict with certainty the eventual outcome of pending litigation. Furthermore, we may have to incur substantial expenses in connection with these lawsuits and our management's attention and resources could be diverted from operating our business as we respond to the litigation. We maintain significant insurance to cover these risks for us and our directors and officers, but our insurance is subject to high deductibles to reduce premium expense, and there is no guarantee that the insurance will cover any specific claim that we currently face or may face in the future, or that it will be adequate to cover all potential liabilities and damages.

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

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

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

elimination of cumulative voting in the election of directors;

procedures for advance notification of shareholder nominations and proposals;

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

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 our board of directors may determine.

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

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

Table of Contents

USE OF PROCEEDS

We estimate that the net proceeds to us from this offering after deducting commissions and expenses will be approximately \$.

We plan to use the net proceeds from this offering to support the launch of Pixuvri in Europe and to commence phase III trials of pacritinib as well as for general corporate purposes, which may include, among other things, funding research and development, preclinical and clinical trials, the preparation and filing of new drug applications, the acquisition of complementary businesses, technologies or products and general working capital.

The amounts and timing of the expenditures for general corporate purposes 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 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.

S-12

Table of Contents**DILUTION**

If you purchase shares of Series 17 Preferred Stock in this offering, assuming the conversion of the shares of the Series 17 Preferred Stock into shares of our common stock, your interest will be diluted to the extent of the difference between the assumed conversion price of \$2.36 per share of our common stock (which was the last reported sale price of our common stock on The NASDAQ Capital Market on October 3, 2012), and the pro forma as adjusted net tangible book value per share of our common stock after this offering. We calculate net tangible book value per share by dividing the net tangible book value, tangible assets less total liabilities, by the number of outstanding shares of common stock.

Our net tangible book value as of June 30, 2012 was \$(1.5) million, or \$(0.03) per share of common stock. After giving effect to the sale of 40,000 shares of Series 17 Preferred Stock and the conversion of the Series 17 Preferred Stock into 16,949,153 shares of our common stock at an assumed conversion price of \$2.36 per share of our common stock (which was the last reported sale price of our common stock on The NASDAQ Capital Market on October 3, 2012), less the underwriting discounts and commissions and our estimated offering expenses, our as adjusted net tangible book value as of June 30, 2012 would have been approximately \$34.9 million, or approximately \$0.50 per share of common stock. This represents an immediate increase in the pro forma net tangible book value of \$0.53 per share to existing stockholders and an immediate dilution of \$1.86 per share to new investors purchasing units in this offering at the public offering price. The following table illustrates this per share dilution:

Public offering price per share of Series 17 Preferred Stock	\$ 1,000
Assumed per share conversion price per share of our common stock	\$ 2.36
Net tangible book value per share of common stock as of June 30, 2012	\$ (0.03)
Increase in net tangible book value per share attributable to new investors in this offering	\$ 0.53
As adjusted pro forma net tangible book value per share of common stock	\$ 0.50
Dilution per share of common stock to new investors in this offering	\$ 1.86

Depending on market conditions and other considerations at the time we price this offering, we may sell a greater or lesser number of shares of Series 17 Preferred Stock than the number set forth on the cover page of this prospectus supplement. An increase (decrease) of 1,000 in the number of shares of Series 17 Preferred Stock we are offering would increase (decrease) our as adjusted net tangible book value by approximately \$0.9 million, or \$0.01 per share, and would decrease (increase) dilution to investors in this offering by approximately \$0.01 per share, assuming the public offering price per share of Series 17 Preferred Stock remains the same. This information is illustrative only, and following the pricing of this offering, we will update this information based on the actual public offering price and other terms of this offering.

The above discussion is based on 52,247,649 shares of our common stock outstanding as of June 30, 2012 and excludes an aggregate of 9,974,787 shares of our common stock issuable upon the exercise of options, warrants and rights outstanding as of June 30, 2012. To the extent the options, warrants or rights outstanding as of June 30, 2012 have been or are exercised, or other shares are issued, investors purchasing shares of Series 17 Preferred Stock in this offering could experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our shareholders.

Table of Contents

DETERMINATION OF OFFERING PRICE

Prior to this offering, there was no public market for the Series 17 Preferred Stock. The terms and conditions of the Series 17 Preferred Stock, including the conversion price, were determined by negotiation between us and the underwriters. The principal factors considered in determining these terms and conditions include:

the market price of our common stock;

the information set forth in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein, and otherwise available to the underwriters;

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

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

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

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

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

other factors deemed relevant by the underwriters and us.

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

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

	SIX MONTHS ENDED JUNE 30, 2012	2011	YEAR ENDED DECEMBER 31,				2007
			2010	2009	2008		
Ratio of earnings to combined fixed charges and preferred stock dividends ⁽¹⁾							

(1) Earnings were not sufficient to cover combined fixed charges and preferred stock dividends. Earnings consist of income (loss) before provision for income taxes plus fixed charges. Fixed charges consist of interest charges and that portion of rental payments under operating leases we believe to be representative of interest. Earnings for the six months ended June 30, 2012 and for the years ended December 31, 2011, 2010, 2009, 2008 and 2007, were insufficient to cover fixed charges and preferred stock dividends, by \$76.0, \$121.1, \$147.6, \$116.8 and \$202.9 and \$148.3 (in millions), respectively. For this reason, no ratios are provided for these periods.

Table of Contents

DIVIDEND POLICY

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

S-16

Table of Contents

DESCRIPTION OF THE SECURITIES WE ARE OFFERING

The material terms and provisions of the Series 17 Preferred Stock being offered pursuant to this prospectus supplement and the accompanying prospectus are summarized below. This summary is subject to, and qualified in its entirety by, the rights, preferences and privileges of the Series 17 Preferred Stock set forth in the articles of amendment to our articles of incorporation to be filed as an exhibit to our Current Report on Form 8-K, which we expect to file with the SEC in connection with this offering.

Description of Series 17 Preferred Stock

Rank

The Series 17 Preferred Stock will, with respect to rights upon our liquidation, dissolution or winding up, rank senior to our common stock and, so long as at least 20% of the aggregate originally issued shares of Series 17 Preferred Stock are outstanding, we may not repay, repurchase or offer to repay or repurchase or otherwise acquire any material amount of common stock or other securities junior to the Series 17 Preferred Stock except for repurchases of up to 5,750,000 shares of common stock in any 12-month period from employees, officers, directors, consultants or others who perform services for us and who are subject to an agreement with us providing a right of repurchase of such shares at cost or on the occurrence of certain events, such as termination of employment. The Series 17 Preferred Stock ranks *pari passu* with our common stock with respect to dividends.

Dividends

Holders of Series 17 Preferred Stock are entitled to receive dividends on shares of Series 17 Preferred Stock equal (on an as if converted to common stock basis) to and in the same form as dividends actually paid on shares of our common stock or other junior securities. All declared but unpaid dividends on the Series 17 Preferred Stock shall increase the stated value of the Series 17 Preferred Stock, but when such dividends are actually paid such increase shall be rescinded.

Liquidation Preference

Upon our voluntary or involuntary dissolution, liquidation or winding up, each holder of the Series 17 Preferred Stock will be entitled to receive a liquidation preference equal to the initial stated value of such holder's Series 17 Preferred Stock of \$1,000 per share, plus any declared and unpaid dividends and any other payments that may be due on the shares, before any distribution of assets may be made to holders of capital stock ranking junior to the Series 17 Preferred Stock. In the event that the amount available for payment of this liquidation preference is less than the full amount of the stated value of all shares of Series 17 Preferred Stock then outstanding, the assets to be distributed to the holders of the Series 17 Preferred Stock will be ratably distributed among such holders in accordance with the respective amounts that would be payable on such holder's shares if the liquidation preference was paid in full.

Conversion

Optional Conversion

The Series 17 Preferred Stock shall be convertible at the option of the holders thereof at any time after issuance into the number of registered shares of common stock determined by dividing the aggregate stated value of the Series 17 Preferred Stock being converted by the conversion price then in effect. The initial conversion price is \$ _____ and is subject to adjustment as described below. This right to convert is limited by the beneficial ownership limitation described below.

Conversion Procedures

On the date of any conversion at the option of the holders, if a holder's interest is a beneficial interest in a global certificate representing Series 17 Preferred Stock, the holder must comply with the Depository's procedures for converting a beneficial interest in a global security. The Depository Trust Company initially will act as Depository.

If a holder's interest is in certificated form, a holder must do each of the following in order to convert:

Edgar Filing: CELL THERAPEUTICS INC - Form 424B2

complete and manually sign the conversion notice provided by the conversion agent, or a facsimile of the conversion notice, and deliver this irrevocable notice to the conversion agent;

surrender the shares of Series 17 Preferred Stock to the conversion agent;

S-17

Table of Contents

if required, furnish appropriate endorsements and transfer documents;

if required, pay any stock transfer, documentary, stamp or similar taxes not payable by us; and

if required, pay funds equal to any declared and unpaid dividend payable on the next dividend payment date to which such holder is entitled.

The date on which a holder complies with the foregoing procedures is the conversion date.

The conversion agent for the Series 17 Preferred Stock is initially the transfer agent. A holder may obtain copies of the required form of the conversion notice from the conversion agent. The conversion agent will, on a holder's behalf, convert the Series 17 Preferred Stock into shares of our common stock, in accordance with the terms of the notice delivered by us. A stock certificate or certificates representing the shares of common stock to be delivered in connection with the conversion, together with, if applicable, any payment of cash in lieu of fractional shares, will be delivered by us to the holder, or in the case of global certificates, a book-entry transfer through the Depositary will be made by the conversion agent. Such delivery will be made as promptly as practicable, but in no event later than three Business Days following the conversion date.

The person or persons entitled to receive the shares of common stock issuable upon conversion of the Series 17 Preferred Stock will be treated as the record holder(s) of such shares as of the close of business on the applicable conversion date. On the conversion date, all rights with respect to the shares of Series 17 Preferred Stock so converted, including the rights, if any, to receive notices, will terminate, except only the rights of holders thereof to receive the number of whole shares of common stock into which such shares of Series 17 Preferred Stock have been converted. Prior to the close of business on the applicable conversion date, the shares of common stock issuable upon conversion of the Series 17 Preferred Stock will not be deemed to be outstanding for any purpose and you will have no rights with respect to the common stock, including voting rights by virtue of holding the Series 17 Preferred Stock.

Automatic Conversion

On the first to occur of (i) the 30th day after the original issuance date of the Series 17 Preferred Stock, (ii) the date on which 5,000 or less shares of Series 17 Preferred Stock remain outstanding or (iii) the adoption by our board of directors of a resolution that it intends to adopt an amendment to our articles of incorporation without shareholder approval to effect a reverse stock split with respect to our common stock in order to achieve compliance with the listing rules of The NASDAQ Capital Market or for other good faith business reasons, all outstanding shares of Series 17 Preferred Stock shall automatically convert into the number of registered shares of common stock determined by dividing the aggregate stated value of the Series 17 Preferred Stock being converted by the conversion price then in effect. This automatic conversion is limited by the beneficial ownership limitation described below.

Beneficial Ownership Limitation

We cannot effect a conversion, and no holder may request conversion, of the Series 17 Preferred Stock to the extent, following such conversion, the holder and its affiliates would beneficially own more than 4.99% of our common stock, provided that a holder may elect to increase the maximum conversion threshold to 9.99% of our common stock by providing us with 61 days' prior notice. In addition, in the event of an automatic conversion, the maximum conversion threshold will increase to 19.99% without any further action on the part of a holder. The amount of beneficial ownership of a holder and its affiliates will be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations of that section.

Conversion Price Adjustment

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

Rights Offerings. If we issue rights, options or warrants to holders of common stock giving such holders a right to subscribe for or purchase shares of common stock at a price per share lower than the volume weighted average price of the common stock on the record date for such issuance and do not offer the same rights to the holders of the Series 17 Preferred Stock, the conversion price will be adjusted to reflect the rights

offering by multiplying such

S-18

Table of Contents

conversion price by a fraction, the numerator of which is the number of shares outstanding before such record date plus the number of shares which the aggregate offering price (assuming full subscription) would purchase at the volume weighted average price of the common stock on such record date and the denominator of which is the number of shares of common stock outstanding on the record date plus the aggregate number of shares offered for subscription or purchase.

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

Fundamental Transaction. If we effect a fundamental transaction (as defined below), then upon any future conversion of the Series 17 Preferred Stock, the holders will have the right to receive, for each share of common stock they would have received upon such conversion, the same kind and amount of securities, cash or property as such holder would have been entitled to receive in the fundamental transaction had it been the holder of a share of common stock immediately prior to the fundamental transaction. The term fundamental transaction means any of the following:

a merger or consolidation of the Company with or into another entity in which the Company is not the surviving entity;

the sale of all or substantially all of our assets in one transaction or a series of related transactions (provided, however, that a fundamental transaction shall not include us entering into a license or other agreement that licenses any intellectual property to an unaffiliated and unrelated person so long as we and our subsidiaries continue to have bona fide, substantial and continuing business operations and activities after such license or other agreement is entered into);

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

any reclassification of common stock or any compulsory share exchange by which common stock is effectively converted into or exchanged for other securities, cash or property (but not a reverse stock split).

If the holders of common stock are given a choice as to the securities, cash or property to be received in a fundamental transaction, the holders of Series 17 Preferred Stock will be given the same choice on conversion of such holder's shares.

Voting Rights

The Series 17 Preferred Stock shall have no voting rights, except to the extent expressly provided in our articles of incorporation or as otherwise required by law. However, so long as at least 20% of the aggregate originally issued shares of Series 17 Preferred Stock are outstanding, we cannot take any of the following actions without the affirmative consent of holders of a majority of the outstanding Series 17 Preferred Stock:

amend our articles of incorporation, bylaws or other charter documents in each case so as to materially, specifically and adversely affect the rights of any holder with respect to the Series 17 Preferred Stock;

repay, repurchase or offer to repay or repurchase or otherwise acquire any of our common stock, common stock equivalents or securities junior to the Series 17 Preferred Stock, except the repurchase of up to 5,750,000 shares of common stock in any 12-month period from employees, officers, directors, consultants or others performing services for us or any of our subsidiaries under

Edgar Filing: CELL THERAPEUTICS INC - Form 424B2

agreements approved by a majority of our board of directors or under which we have the option to repurchase such shares at cost or at cost on the occurrence of certain events such as termination of employment;

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

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

S-19

Table of Contents

Miscellaneous

There are no restrictions on repurchase or redemption of the shares of Series 17 Preferred Stock while there is any arrearage in dividends or sinking fund installments.

Form and Book-Entry System

The shares of Series 17 Preferred Stock will initially be issued and maintained in the form of global securities held in book-entry form. The Depository Trust Company, or DTC, or its nominee will be the sole registered holder of the shares of Series 17 Preferred Stock. Owners of beneficial interests in the shares of Series 17 Preferred Stock represented by the global securities will hold their interests pursuant to the procedures and practices of DTC. As a result, beneficial interests in any such securities will be shown on, and transfers will be effected only through, records maintained by DTC and its direct and indirect participants and any such interest may not be exchanged for certificated securities, except in limited circumstances. Owners of beneficial interests must exercise any rights in respect of other interests, including any right to convert or require repurchase of their interests in the shares of Series 17 Preferred Stock, in accordance with the procedures and practices of DTC. Owners of such beneficial interests will not be holders and will not be entitled to any rights provided to the holders of the shares of Series 17 Preferred Stock under the global securities or the articles supplementary thereto. We and any of our agents may treat DTC as the sole holder and registered owner of the global securities.

Any holder of shares of the Series 17 Preferred Stock will have the right to request a certificate therefor and upon such request made in writing to the Transfer Agent and Registrar for the shares of Series 17 Preferred Stock, we will cause to be issued a duly executed certificate for such shares of Series 17 Preferred Stock registered in the name in which the shares of Series 17 Preferred Stock were held in book-entry form or such other name(s) as specified by the holder in writing. In addition, the shares of Series 17 Preferred Stock, represented by one or more global securities, will be exchangeable for certificated securities with the same terms if:

DTC is unwilling or unable to continue as depository or if DTC ceases to be a clearing agency registered under the Exchange Act and a successor depository is not appointed by us within ninety (90) days; or

we decide to discontinue use of the system of book-entry transfer through DTC.

DTC has advised us as follows: DTC is a limited-purpose trust company organized under the New York Banking Law, a banking organization within the meaning of the New York Uniform Commercial Code, and a clearing agency registered pursuant to the provisions of Section 17A of the Exchange Act. DTC facilitates the settlement of transactions amongst participants through electronic computerized book-entry changes in participants' accounts, eliminating the need for physical movement of securities certificates. DTC's participants include securities brokers and dealers, including the underwriters, banks, trust companies, clearing corporations and other organizations, some of whom and/or their representatives own DTC. Access to DTC's book-entry system is also available to others, such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a participant, either directly or indirectly.

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 articles of incorporation, our bylaws and all applicable provisions of Washington law.

General

We are authorized to issue 150,000,000 shares of common stock, no par value, and 333,333 shares of preferred stock, no par value. As of September 28, 2012, there were 62,270,179 shares of common stock outstanding, warrants to purchase approximately 8,411,577 shares of common stock outstanding and no shares of preferred stock outstanding. In addition, as of September 28, 2012, 3,936,949 shares of common stock were reserved for issuance under our equity compensation plans, 43,611 shares of common stock were reserved for issuance under our employee stock purchase plan and 13 shares of common stock were reserved for issuance upon exercise of outstanding restricted share rights, as well as 6,227 shares of Series ZZ Junior Participating Cumulative Preferred Stock reserved for issuance pursuant to our shareholders' rights plan.

On April 15, 2007, we effected a 1-for-4 reverse stock split of our common stock, on August 31, 2008, we effected a 1-for-10 reverse stock split of our common stock, on May 15, 2011, we effected a 1-for-6 reverse stock split of our common stock and, on September 2, 2012, we effected a 1-for-5 reverse stock split of our common stock.

Common Stock

Each holder of common stock is generally entitled to one vote for each share held on all matters to be voted upon by the shareholders and there are no cumulative voting rights. Subject to preferences that may be applicable to any outstanding preferred stock, holders of common stock are entitled to receive ratably the dividends, if any, that are declared from time to time by the board of directors out of funds legally available for that purpose. In the event of our liquidation, dissolution or winding up, the holders of common stock are entitled to share in our assets remaining after the payment of liabilities and the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock. Holders of common stock have no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are fully paid and nonassessable. The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of Series 17 Preferred Stock, as well as any other series of preferred stock that we may designate in the future.

General Description of Preferred Stock

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

restricting dividends on the common stock;

diluting the voting power of the common stock;

impairing the liquidation rights of the common stock; or

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

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

Washington law contains certain provisions that may have the effect of delaying, deterring or preventing a change in control of the Company. Chapter 23B.19 of the Washington Business Corporation Act prohibits us, with certain exceptions, from engaging in certain significant business transactions with an acquiring person (defined generally as a person or group of persons who acquire 10% or more of our voting securities) for a

period of five years following

S-21

Table of Contents

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 any other receipt by the acquiring person of 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 two-thirds of the outstanding shares 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 a merger, share exchange, consolidation, liquidation, distribution or certain other significant business transactions entered into with the acquiring person where certain requirements regarding the fairness of the consideration to be received by the shareholders have been met. We may not exempt ourselves from coverage of this statute. These statutory provisions may have the effect of delaying, deterring or preventing a change in control of the Company.

Our board of directors is divided into three approximately equal classes of directors serving staggered three-year terms. In addition, our 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 articles of incorporation limit cause to willful misfeasance having a material adverse effect on us or conviction of a felony, provided that any action by a director shall not constitute cause if, in good faith, the director believed the action to be in, or not opposed to, our best interests or if the director is entitled to be indemnified with respect to such action under applicable law, our articles of incorporation or bylaws or a contract with us. Further, our bylaws require a shareholder to provide notice to us of such shareholder's intention to nominate a person or persons for election as directors not later than 90 days prior to the first anniversary of the previous year's annual meeting or, in the case of an election to be held at a special meeting of the shareholders for the election of directors, the close of business on the tenth day following the date on which notice of such meeting is first given to shareholders. A shareholder must also provide us with notice of such shareholder's intent to make any proposal at an annual meeting of shareholders not later than 90 days prior to the first anniversary of the previous year's annual meeting of shareholders. These provisions may have the effect of deterring hostile takeovers or delaying a change in control of our management.

On December 28, 2009, we entered into our rights plan with Computershare Trust Company, N.A. as rights agent. In connection with our rights plan, one preferred stock purchase right was distributed for each common share held as of the close of business on January 7, 2010. Initially, the rights are not exercisable and are attached to, and trade with, all of the shares of common stock outstanding as of, and issued subsequent to, the record date (as defined in the rights plan). On August 31, 2012, we amended our rights plan in connection with our 1-for-5 reverse stock split effected on September 2, 2012, and each right, if and when it becomes exercisable, will entitle the holder to purchase one ten-thousandths of a share of Series ZZ Junior Participating Cumulative Preferred Stock for \$14.00, subject to standard adjustment in the rights plan. Upon the acquisition of 20% or more of our common stock by a person or group, subject to certain exceptions (such acquisition referred to herein as a 20% acquisition), the rights will become exercisable for our preferred stock, except for those rights held by such 20% acquirer, which will become null and void. Upon a 20% acquisition, the holder of an exercisable right will be entitled to receive, upon exercise, in lieu of preferred stock, that number of shares of common stock, or in certain circumstances, including if there are insufficient shares of common stock to permit the exercise in full of the rights, preferred stock, other securities, cash, property or a reduction in the exercise price of the rights, or any combination of the foregoing, having a market value of two times the exercise price of the right.

If we are acquired in a merger, consolidation or certain other business combination transactions after a 20% acquisition, each holder of an exercisable right would then have the right to receive, upon exercise, common stock of the acquiring company having a market value equal to two times the exercise price of the right.

Our board of directors may redeem the rights for \$0.0001 per right or amend the rights plan at any time prior to a 20% acquisition or the expiration of the rights plan. The rights plan will expire on January 7, 2013, unless the rights are previously redeemed or exchanged by us.

Transfer Agent and Registrar

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

Table of Contents**UNDERWRITING**

Subject to the terms and conditions set forth in the underwriting agreement to be dated on or about October , 2012, between us and Jefferies & Company, Inc., as representative of the several underwriters listed in the table below, we have agreed to sell to the underwriters and the underwriters have severally agreed to purchase from us the number of shares of Series 17 Preferred Stock indicated in the table below:

UNDERWRITERS	NUMBER OF SHARES OF SERIES 17 PREFERRED STOCK
Jefferies & Company, Inc.	
Roth Capital Partners, LLC	
ThinkEquity LLC	
Total	40,000

Jefferies & Company, Inc. is acting as sole book-running manager of this offering and as representative of the underwriters named above.

The underwriting agreement provides that the obligations of the several underwriters are subject to certain conditions precedent such as the receipt by the underwriters of officers' certificates and legal opinions and approval of certain legal matters by their counsel. The underwriting agreement provides that the underwriters will purchase all of the shares of Series 17 Preferred Stock if any of them are purchased. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the nondefaulting underwriters may be increased or the underwriting agreement may be terminated. We have agreed to indemnify the underwriters and certain of their controlling persons against certain liabilities, including liabilities under the Securities Act of 1933, as amended, and to contribute to payments that the underwriters may be required to make in respect of those liabilities.

The underwriters have advised us that they currently intend to make a market in our common stock. However, the underwriters are not obligated to do so and may discontinue any market-making activities at any time without notice. No assurance can be given as to the liquidity of the trading market for the common stock. We do not expect there to be a trading market for the shares of Series 17 Preferred Stock, and the underwriters have informed us that they do not intend to make a market in the shares of Series 17 Preferred Stock.

The underwriters are offering the shares of Series 17 Preferred Stock to investors subject to their acceptance of the shares of Series 17 Preferred Stock from us and subject to prior sale. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part. In addition, the underwriters have advised us that they do not intend to confirm sales to any account over which they exercise discretionary authority.

Commission and Expenses

The underwriters have advised us that they propose to offer the shares of Series 17 Preferred Stock to the public at the initial public offering price set forth on the cover page of this prospectus supplement and to certain dealers at that price less a concession not in excess of \$ per \$ share of Series 17 Preferred Stock. The underwriters may allow, and certain dealers may re-allow, a discount from the concession not in excess of \$ per \$ share of Series 17 Preferred Stock to certain brokers and dealers. After the offering, the initial public offering price, concession and reallowance to dealers may be reduced by the representative. No such reduction will change the amount of proceeds to be received by us as set forth on the cover page of this prospectus.

Table of Contents

The following table shows the public offering price, the underwriting discounts and commissions that we are to pay the underwriters and the proceeds, before expenses, to us in connection with this offering.

	PER SHARE OF SERIES 17 PREFERRED STOCK⁽¹⁾	TOTAL
Public offering price	\$	\$
Underwriting discounts and commissions paid by us	\$	\$
Proceeds to us, before expenses	\$	\$

(1) Excludes shares of common stock issuable upon conversion of the Series 17 Preferred Stock offered hereby.

We estimate expenses payable by us in connection with this offering, other than the underwriting discounts and commissions referred to above, will be approximately \$.

Listing

Our common stock is listed on The NASDAQ Capital Market and on the MTA under the trading symbol CTIC. We do not plan to list the shares of Series 17 Preferred Stock on any exchange.

No Sales of Similar Securities

We and our officers and directors have agreed, subject to specified exceptions, not to directly or indirectly:

sell, offer, contract or grant any option to sell (including any short sale), pledge, transfer, establish an open put equivalent position within the meaning of Rule 16a-1(h) under the Exchange Act;

otherwise dispose of any preferred stock, common shares, options or warrants to acquire common shares, or securities exchangeable or exercisable for or convertible into common shares currently or hereafter owned either of record or beneficially; or

publicly announce an intention to do any of the foregoing for a period of 90 days after the date of this prospectus supplement without the prior written consent of Jefferies & Company, Inc.

This restriction terminates after the close of trading of our common stock on and including the 90th day after the date of this prospectus supplement. However, subject to certain exceptions, in the event that prior to the expiration of the 90-day restricted period, we announce that we will release earnings results during the 16-day period beginning on the last day of the 90-day restricted period, then in either case the expiration of the 90-day restricted period will be extended until the expiration of the 18-day period beginning on the date of the issuance of an earnings release or the occurrence of the material news or event, as applicable, unless Jefferies & Company, Inc. waives, in writing, such an extension.

Jefferies & Company, Inc. may, in its sole discretion and at any time or from time to time before the termination of the 90-day period, without public notice, release all or any portion of the securities subject to lock-up agreements. There are no existing agreements between the

Edgar Filing: CELL THERAPEUTICS INC - Form 424B2

underwriters and any of our shareholders who will execute a lock-up agreement providing consent to the sale of shares in transactions otherwise subject to the lock-up restrictions described above prior to the expiration of the lock-up period.

Electronic Distribution

A prospectus in electronic format may be made available by e-mail or on the web sites or through online services maintained by one or more of the underwriters or their affiliates. In those cases, prospective investors may view offering terms online and may be allowed to place orders online. The underwriters may agree with us to allocate a specific number of shares of common stock for sale to online brokerage account holders. Any such allocation for online distributions will be made by the underwriters on the same basis as other allocations. Other than the prospectus in electronic format, the information on the underwriters' web sites and any information contained in any other web site maintained by any of the underwriters is not part of this prospectus supplement, has not been approved and/or endorsed by us or the underwriters and should not be relied upon by investors.

S-24

Table of Contents

Affiliations

The underwriters and certain of their affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. The underwriters and certain of their affiliates have, from time to time, performed, and may in the future perform, various financial advisory and investment banking services for the issuer, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the underwriters and certain of their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments of the issuer. The underwriters and certain of their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

S-25

Table of Contents

NOTICE TO INVESTORS

Australia

This prospectus supplement and the accompanying prospectus is not a disclosure document for the purposes of Australia's Corporations Act 2001 (Cth) of Australia, or Corporations Act, has not been lodged with the Australian Securities & Investments Commission and is only directed to the categories of exempt persons set out below. Accordingly, if you receive this prospectus supplement and the accompanying prospectus in Australia:

You confirm and warrant that you are either:

a sophisticated investor under section 708(8)(a) or (b) of the Corporations Act;

a sophisticated investor under section 708(8)(c) or (d) of the Corporations Act and that you have provided an accountant's certificate to the company which complies with the requirements of section 708(8)(c)(i) or (ii) of the Corporations Act and related regulations before the offer has been made; or

professional investor within the meaning of section 708(11)(a) or (b) of the Corporations Act.

To the extent that you are unable to confirm or warrant that you are an exempt sophisticated investor or professional investor under the Corporations Act any offer made to you under this prospectus supplement and the accompanying prospectus is void and incapable of acceptance.

You warrant and agree that you will not offer any of the securities issued to you pursuant to this prospectus supplement and the accompanying prospectus for resale in Australia within 12 months of those securities being issued unless any such resale offer is exempt from the requirement to issue a disclosure document under section 708 of the Corporations Act.

European Economic Area

In relation to each member state of the European Economic Area which has implemented the Prospectus Directive, or each, a Relevant Member State, with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State, or the Relevant Implementation Date, no offer of any securities which are the subject of the offering contemplated by this prospectus supplement and the accompanying prospectus has been or will be made to the public in that Relevant Member State other than any offer where a prospectus has been or will be published in relation to such securities that has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the relevant competent authority in that Relevant Member State in accordance with the Prospectus Directive, except that with effect from and including the Relevant Implementation Date, an offer of such securities may be made to the public in that Relevant Member State:

(a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;

(b) to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives of the underwriters for any such offer; or

(c) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of securities shall require us or any of the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

Edgar Filing: CELL THERAPEUTICS INC - Form 424B2

For the purposes of this provision, the expression an offer to the public in relation to any securities in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe the securities, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Relevant Member State and the expression Prospectus Directive means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State and the expression 2010 PD Amending Directive means Directive 2010/73/EU.

S-26

Table of Contents

Hong Kong

No securities have been offered or sold, and no securities may be offered or sold, in Hong Kong, by means of any document, other than to persons whose ordinary business is to buy or sell shares or debentures, whether as principal or agent; or to professional investors as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance; or in other circumstances which do not result in the document being a prospectus as defined in the Companies Ordinance (Cap. 32) of Hong Kong or which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap.32) of Hong Kong. No document, invitation or advertisement relating to the securities has been issued or may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted under the securities laws of Hong Kong) other than with respect to securities which are or are intended to be disposed of only to persons outside Hong Kong or only to professional investors as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance.

This prospectus supplement and the accompanying prospectus have not been registered with the Registrar of Companies in Hong Kong. Accordingly, this prospectus supplement and the accompanying prospectus may not be issued, circulated or distributed in Hong Kong, and the securities may not be offered for subscription to members of the public in Hong Kong. Each person acquiring the securities will be required, and is deemed by the acquisition of the securities, to confirm that he is aware of the restriction on offers of the securities described in this prospectus supplement and the accompanying prospectus and the relevant offering documents and that he is not acquiring, and has not been offered any securities in circumstances that contravene any such restrictions.

Italy

The offering of the securities pursuant to this prospectus supplement and the accompanying prospectus has not been registered with or cleared by CONSOB pursuant to the Prospectus Directive and Italian securities laws and regulations and no prospectus has been or will be distributed in the Republic of Italy, or Italy. Accordingly, the securities have not been and will not be offered, sold or distributed, directly or indirectly, in Italy in an offer to the public of financial products under the meaning of Article 1, paragraph 1, letter t) of Legislative Decree No. 58 of February 24, 1998 as amended, or the Financial Services Act, and copies of this prospectus supplement, the accompanying prospectus or any other document relating to the offering of the securities may not and will not be distributed in Italy unless an exception applies. Therefore, the securities may only be offered, sold or delivered within the territory of Italy:

(a) to qualified investors (*investitori qualificati*), as defined in Article 34-ter, par. 1, b) of CONSOB Regulation No. 11971 of May 14, 1999, both as amended, or the Issuers Regulation; or

(b) in any other circumstances where an express exemption from compliance with the restrictions on offers to the public applies, including, without limitation, as provided under Article 100 of the Financial Services Act and Article 34-ter of the Issuers Regulation.

In addition, and subject to the foregoing, any offer, sale or delivery of the securities in Italy or distribution of this prospectus supplement, the accompanying prospectus or any document relating to the offering in Italy under (a) and (b) above must be carried out:

(i) by investment firms, banks or financial intermediaries authorized to carry out such activities in Italy in accordance with the Financial Services Act, the Issuers Regulation, CONSOB Regulation No. 16190 of October 29, 2007 and Legislative Decree No. 385 of September 1st, 1993, or the Banking Law, all as amended; and

(ii) in compliance with any other applicable laws and regulations, including any conditions, limitations or requirements that may be, from time to time, imposed by the relevant Italian authorities concerning, including, securities, tax matters and exchange controls.

Any investor purchasing securities in this offering is exclusively responsible for ensuring that any offer or resale of the securities it purchased in this offering occurs in compliance with applicable laws and regulations. No person resident or located in Italy other than the original addressees of this document may rely on this document or its contents.

Table of Contents

Article 100-*bis* of the Financial Services Act affects the transferability of the securities in Italy to the extent that any placing of the securities is made solely with qualified investors and such securities are then systematically resold to non-qualified investors on the secondary market at any time in the 12 months following such placing. Should this occur without the publication of a prospectus in conformity with the Prospectus Directive, and outside of the application of one of the exemptions referred to above, purchasers of the securities who are acting outside of the course of their business or profession shall be entitled, under certain conditions, to have such purchase declared void and to claim damages from any authorized intermediary at whose premises the securities were purchased.

Japan

The offering has not been and will not be registered under the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948 of Japan, as amended), or FIEL, and the Initial Purchaser will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means, unless otherwise provided herein, any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the FIEL and any other applicable laws, regulations and ministerial guidelines of Japan.

Singapore

This prospectus supplement and the accompanying prospectus have not been and will not be lodged or registered with the Monetary Authority of Singapore. Accordingly, this prospectus supplement and the accompanying prospectus and any other document or material in connection with the offer or sale, or the invitation for subscription or purchase of the securities may not be issued, circulated or distributed, nor may the securities be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to the public or any member of the public in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore, or the SFA, (ii) to a relevant person as defined under Section 275(2), or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions, specified in Section 275 of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of any other applicable provision of the SFA.

Where the securities are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- (a) a corporation (which is not an accredited investor as defined under Section 4A of the SFA) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor,

shares, debentures and units of shares and debentures of that corporation or the beneficiaries' rights and interest in that trust shall not be transferable for six months after that corporation or that trust has acquired the Offer Shares under Section 275 of the SFA except:

- (i) to an institutional investor under Section 274 of the SFA or to a relevant person defined in Section 275(2) of the SFA, or to any person pursuant to an offer that is made on terms that such shares, debentures and units of shares and debentures of that corporation or such rights and interest in that trust are acquired at a consideration of not less than \$200,000 (or its equivalent in a foreign currency) for each transaction, whether such amount is to be paid for in cash or by exchange of securities or other assets, and further for corporations, in accordance with the conditions, specified in Section 275 of the SFA;
- (ii) where no consideration is given for the transfer; or
- (iii) where the transfer is by operation of law.

Switzerland

Edgar Filing: CELL THERAPEUTICS INC - Form 424B2

The securities may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange, or SIX, or on any other stock exchange or regulated trading facility in Switzerland. This prospectus supplement and the accompanying prospectus have been prepared without regard to the disclosure standards for issuance prospectuses

S-28

Table of Contents

under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this prospectus supplement and the accompanying prospectus nor any other offering or marketing material relating to the securities or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this prospectus supplement and the accompanying prospectus nor any other offering or marketing material relating to the offering, the Company or the securities have been or will be filed with or approved by any Swiss regulatory authority. In particular, this prospectus supplement and the accompanying prospectus will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA, or FINMA, and the offer of securities has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes, or the CISA. The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of securities.

United Kingdom

This prospectus supplement and the accompanying prospectus are only being distributed to, and is only directed at, persons in the United Kingdom that are qualified investors within the meaning of Article 2(1)(e) of the Prospectus Directive that are also (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended, or the Order, and/or (ii) high net worth entities falling within Article 49(2)(a) to (d) of the Order and other persons to whom it may lawfully be communicated (each such person being referred to as a relevant person).

This prospectus supplement and the accompanying prospectus and its contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other persons in the United Kingdom. Any person in the United Kingdom that is not a relevant person should not act or rely on this document or any of its contents.

Table of Contents

CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS

All purchasers of shares of Series 17 Preferred Stock in this offering are advised to consult their own tax advisors regarding the federal, state, local and foreign tax consequences of the purchase, ownership, conversion or exercise, as the case may be, and disposition of the units and the ownership and disposition of shares of common stock issuable upon conversion of the Series 17 Preferred Stock in their particular situations.

LEGAL MATTERS

Certain legal matters in connection with the securities offered hereby will be passed upon for us by O Melveny & Myers LLP of San Francisco, California. Certain legal matters relating to Washington law will be passed upon for us by Karr Tuttle Campbell of Seattle, Washington. Certain legal matters relating to Italian law will be passed upon for us by Legance Studio Legale Associato of Milan, Italy. Covington & Burling LLP, New York, New York is counsel for the underwriters in connection with this offering.

EXPERTS

Stonefield Josephson, Inc., an independent registered public accounting firm, has audited our consolidated statements of operations, shareholder s deficit and other comprehensive loss, and cash flows for the year ended December 31, 2009, included in our Annual Report on Form 10-K for the year ended December 31, 2011, as set forth in its report, which is incorporated by reference in this prospectus supplement and the accompanying prospectus (which report includes an explanatory paragraph as to our ability to continue as a going concern). Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

Marcum LLP, an independent registered public accounting firm, has audited our consolidated financial statements at December 31, 2010 and December 31, 2011, and for each of the years ended December 31, 2010 and 2011, included in our Annual Report on Form 10-K for the year ended December 31, 2011, and the effectiveness of our internal control over financial reporting as of December 31, 2011 as set forth in its report, which is incorporated by reference in this prospectus supplement and the accompanying prospectus (which report includes an explanatory paragraph as to our ability to continue as a going concern). Such consolidated financial statements 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

PROSPECTUS

CELL THERAPEUTICS, INC.

\$150,000,000

Common Stock

Preferred Stock

Debt Securities

Warrants

Rights

Units

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

shares of our common stock;

shares of our preferred stock;

debt securities;

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

rights to purchase common stock, preferred stock and/or debt securities; and

units consisting of two or more of these classes or series of securities.

Edgar Filing: CELL THERAPEUTICS INC - Form 424B2

We may sell any combination of these securities in one or more offerings, up to an aggregate offering price of \$150,000,000, in amounts, at prices and on terms to be determined at the time of each offering thereof. Each time we offer securities using this prospectus, we will provide specific terms of the securities and the offering in one or more supplements to this prospectus. The prospectus supplements may also add to, update or change the information in this prospectus and will also describe the specific manner in which we will offer the securities. The securities may be offered and sold by us to or through one or more underwriters, broker-dealers or agents, or directly to purchasers on a continuous or delayed basis. See Plan of Distribution.

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

Our common stock is quoted on The NASDAQ Capital Market and on the Mercato Telematico Azionario, or the MTA, stock market in Italy under the symbol CTIC. On August 1, 2012, the last reported sale price of our common stock on The NASDAQ Capital Market was \$0.49 per share. We do not expect our preferred stock, debt securities, warrants, rights or units to be listed on any securities exchange or over-the-counter market unless otherwise described in the applicable prospectus supplement.

Investing in our securities involves a high degree of risk. See the Risk Factors section on page 4 of this prospectus.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is August 29, 2012

Table of Contents

TABLE OF CONTENTS

	Page
<u>ABOUT THIS PROSPECTUS</u>	1
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	1
<u>INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE</u>	2
<u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	3
<u>INFORMATION ABOUT THE COMPANY</u>	3
<u>RISK FACTORS</u>	4
<u>RATIO OF EARNINGS TO FIXED CHARGES AND OF EARNINGS TO COMBINED FIXED CHARGES AND PREFERRED STOCK DIVIDENDS</u>	4
<u>USE OF PROCEEDS</u>	4
<u>DIVIDEND POLICY</u>	5
<u>DESCRIPTION OF CAPITAL STOCK</u>	5
<u>DESCRIPTION OF DEBT SECURITIES</u>	9
<u>DESCRIPTION OF WARRANTS</u>	16
<u>DESCRIPTION OF RIGHTS</u>	20
<u>DESCRIPTION OF UNITS</u>	21
<u>PLAN OF DISTRIBUTION</u>	22
<u>LEGAL MATTERS</u>	26
<u>EXPERTS</u>	26

Table of Contents

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, utilizing a shelf registration process. Under the shelf registration process, we may, from time to time, sell common stock, preferred stock, debt securities, warrants, rights, units or any combination of these securities in one or more offerings, for a total maximum offering price not to exceed \$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 that offering, including the specific amounts, prices and terms of the securities offered. Any prospectus supplement may include a discussion of risks or other special considerations applicable to us or the offered securities. Any prospectus supplement may also add to, update or change information contained in this prospectus. To the extent there is a conflict between the information contained in this prospectus, on the one hand, and the information contained in any prospectus, on the other hand, you should rely on the information in the prospectus supplement.

You should read this prospectus, any prospectus supplement, any documents that we incorporate by reference in this prospectus and in any prospectus supplement, and the additional information described below under **Where You Can Find More Information** and **Incorporation of Certain Documents by Reference** before making an investment decision. You should rely only on the information contained or incorporated by reference in this prospectus and any prospectus supplement. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

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

In this prospectus, the terms **CTI**, **Company**, **registrant**, **we**, **us**, **our** and similar terms refer to Cell Therapeutics, Inc., a Washington corporation and its subsidiaries, unless the context otherwise requires. **CTI**, **OPAXIO** and **Pixuvri** are our proprietary marks. All other product names, trademarks and trade names referred to in this prospectus, as supplemented from time to time, are the property of their respective owners.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the information requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act. In accordance with the Exchange Act, we file reports, proxy statements and other information with the SEC. Such reports, proxy statements and other information filed by us are available to the public free of charge at www.sec.gov. Copies of certain information filed by us with the SEC are also available on our website at www.celltherapeutics.com. You may also read and copy any document we file with the SEC, including the registration statement on Form S-3 and the exhibits thereto, at the public reference facilities maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the public reference facilities by calling the SEC at 1-800-SEC-0330.

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

Table of Contents

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

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

our Annual Report on Form 10-K for the fiscal year ended December 31, 2011 filed with the SEC on March 8, 2012;

our Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2012 and June 30, 2012, filed with the SEC on April 20, 2012 and August 2, 2012, respectively;

our Proxy Statement on Schedule 14A filed with the SEC on July 27, 2012;

our Current Reports on Form 8-K filed with the SEC on January 3, 2012 (Item 8.01 only), January 12, 2012, January 30, 2012 (Item 8.01 only), February 2, 2012, February 15, 2012 (Item 1.01 only), February 17, 2012 (Item 8.01 only), April 24, 2012 (Items 1.01 and 3.02 only), May 14, 2012 (Item 8.01 only), May 31, 2012 (other than Items 7.01 and 9.01), June 5, 2012 (other than Items 7.01 and 9.01), June 20, 2012, June 22, 2012, June 29, 2012 (Item 3.01 only), July 13, 2012, July 27, 2012 and August 1, 2012 (other than Items 7.01 and 9.01); and

the description of our capital stock contained in our Registration Statement on Form 10 filed with the SEC on June 27, 1996, as amended.

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

We will provide without charge to each person, including any beneficial owners, to whom this prospectus is delivered, upon his or her written or oral request, a copy of any or all documents referred to above which have been or may be incorporated by reference into this prospectus but not delivered with this prospectus, excluding exhibits to those documents unless they are specifically incorporated by reference into those documents. You may request a copy of these documents by writing or telephoning us at the following address:

Cell Therapeutics, Inc.

3101 Western Avenue, Suite 600

Seattle, Washington 98121

(206) 282-7100

Attention: Investor Relations

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, any prospectus supplement and any documents we incorporate by reference herein or therein may contain forward-looking statements within the meaning of the U.S. federal securities laws. All statements other than statements of historical fact are forward-looking statements, including, without limitation:

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

any statements regarding the performance, or likely performance, or outcomes or economic benefit of any licensing or other agreement, including any agreement with Novartis International Pharmaceutical Ltd. or its affiliates, or Chroma Therapeutics Ltd. or its affiliates, including whether or not such partner will elect to participate, terminate or otherwise make elections under any such agreement or whether any regulatory authorizations required to enable such agreement will be obtained;

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

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

any statements concerning proposed new products or services;

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

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

any statements regarding pending or future mergers or acquisitions; and

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

In some cases, forward-looking statements can be identified by terms such as anticipates, believes, continue, could, estimates, expects, i may, plans, potential, predicts, projects, should or will or the negative thereof, variations thereof and similar expressions. Such statements are based on management's current expectations and are subject to risks and uncertainties which may cause actual results to differ materially from those set forth in the forward-looking statements. There can be no assurance that such expectations or any of the forward-looking statements will prove to be correct, and actual results could differ materially from those projected or assumed in the forward-looking statements. We urge you to carefully review the disclosures we make concerning risks and other factors that may affect our business and operating results, including those made in Item 1A. Risk Factors in our Annual Report on Form 10-K for the year ended December 31, 2011 and in Part II Item 1A. Risk Factors in our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2012 and June 30, 2012, as such risk factors may be updated in subsequent SEC filings, as well as our other reports filed with the SEC and in any prospectus supplement. We caution you not to place undue reliance on forward-looking statements, which speak only as of the date of this prospectus or any prospectus supplement. We do not intend, and we undertake no obligation, to update any forward-looking information to reflect events or circumstances after the date of this prospectus or any prospectus supplement or to reflect the occurrence of unanticipated events, unless required by law to do so.

INFORMATION ABOUT THE COMPANY

Edgar Filing: CELL THERAPEUTICS INC - Form 424B2

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 development, acquisition and in-licensing activities concentrate on identifying and developing new, less toxic and more effective ways to treat cancer. Our operations are primarily conducted in the United States. We are currently focusing our efforts on the European launch of Pixuvri (pixantrone dimaleate), or Pixuvri, an ongoing Phase III trial of Pixuvri

Table of Contents

and the development of pacritinib and tosedostat. We continue to work on OPAXIO (paclitaxel poliglumex), or OPAXIO, and brostallicin through a cooperative group and investigator initiated studies. We also continue to evaluate additional novel clinical stage compounds to expand our hematologic cancer product pipeline. We are interested in compounds or products that are complementary to our existing pipeline.

We were incorporated in the State of Washington in 1991. Our shares of common stock trade on The NASDAQ Capital Market and the MTA in Italy under the symbol CTIC. Our principal executive offices are located at 3101 Western Avenue, Suite 600, Seattle, Washington 98121, and our phone number is (206) 282-7100. Our website is located at www.celltherapeutics.com; however, the information in, or that can be accessed through, our website is not part of this prospectus.

RISK FACTORS

You should carefully consider the risks under the heading Risk Factors beginning on page 21 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2011, filed with the SEC on March 8, 2012, and our Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2012 and June 30, 2012, filed with the SEC on April 20, 2012 and August 2, 2012, respectively, which information is incorporated by reference in this prospectus, and the additional risks and other information in this prospectus, any prospectus supplement and the documents incorporated by reference herein and therein before deciding to invest in our securities. If any of the identified risks actually occur, they could materially adversely affect our business, financial condition, operating results or prospects and the trading price of our securities. Additional risks and uncertainties that we do not presently know or that we currently deem immaterial may also impair our business, financial condition, operating results and prospects and the trading price of our securities.

RATIO OF EARNINGS TO FIXED CHARGES AND OF EARNINGS TO COMBINED FIXED CHARGES AND PREFERRED STOCK DIVIDENDS

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

	Six months ended		Year ended December 31,			
	June 30,	2011	2010	2009	2008	2007
Ratio of earnings to fixed charges(1)						
Ratio of earnings to combined fixed charges and preferred stock dividends(1)						

- (1) Earnings were not sufficient to cover combined fixed charges and preferred stock dividends. Earnings consist of income (loss) before provision for income taxes plus fixed charges. Fixed charges consist of interest charges and that portion of rental payments under operating leases we believe to be representative of interest. Earnings for the six months ended June 30, 2012, and for the years ended December 31, 2011, 2010, 2009, 2008 and 2007, were insufficient to cover fixed charges, and fixed charges and preferred stock dividends, by \$76.0, \$121.1, \$147.6, \$116.8, \$202.9 and \$148.3 (in millions), respectively. For this reason, no ratios are provided for these periods.

USE OF PROCEEDS

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

Table of Contents

DIVIDEND POLICY

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

DESCRIPTION OF CAPITAL STOCK

This summary does not purport to be complete and is subject to, and qualified in its entirety by, the provisions of our amended and restated articles of incorporation, as amended, which we refer to as our articles of incorporation, our second amended and restated bylaws, which we refer to as our bylaws, and all applicable provisions of Washington law. Our articles of incorporation and bylaws are incorporated by reference as exhibits to the registration statement of which this prospectus is a part. The particular terms of any offering of our securities will be described in a prospectus supplement relating to such offering.

General

We are authorized to issue 383,333,333 shares of common stock, no par value, and 1,666,666 shares of preferred stock, no par value. In our proxy statement for the 2012 annual meeting of our shareholders, we have included a proposal to increase the total number of authorized shares from 384,999,999 to 751,666,666 and the total number of authorized shares of common stock from 383,333,333 to 750,000,000 shares. As of July 31, 2012, there were 283,408,995 shares of common stock outstanding, warrants to purchase approximately 65,230,425 shares of common stock outstanding and no shares of preferred stock outstanding. In addition, as of July 31, 2012, 4,557,049 shares of common stock were reserved for issuance under our equity compensation plans, 217,818 shares of common stock were reserved for issuance under our employee stock purchase plan and 65 shares of common stock were reserved for issuance upon exercise of outstanding restricted share rights.

On April 15, 2007, we effected a one-for-four reverse stock split of our common stock, on August 31, 2008, we effected a one-for-ten reverse stock split of our common stock and on May 15, 2011, we effected a one-for-six reverse stock split of our common stock.

On June 29, 2012, we received a notice from NASDAQ stating that, based on the closing bid price of our common stock for the thirty (30) consecutive business days preceding such date, we no longer met the minimum \$1.00 per share requirement for continued listing on The NASDAQ Capital Market. In accordance with NASDAQ Listing Rule 5810(c)(3)(A), we were provided a grace period of one hundred eighty (180) calendar days, or until December 26, 2012, to regain compliance. We may achieve compliance during the 180-day period if the closing bid price of our common stock is at least \$1.00 per share for a minimum of ten (10) consecutive trading days before December 26, 2012. We may be eligible for an additional grace period if we meet the initial listing standards, with the exception of bid price, for The NASDAQ Capital Market. If we meet the initial listing criteria, with the exception of bid price, we may be granted an additional 180 calendar day compliance period.

As of August 2, 2012, the closing bid price of our common stock for the last thirty (30) days has been below \$1.00 per share. If we are unable to attain compliance with the minimum bid price requirement, whether by effectuating a reverse stock split of our common stock or otherwise, our common stock may be delisted from The NASDAQ Capital Market. To address our non-compliance with the minimum bid price requirement, our board of directors may determine in its discretion that we should complete a reverse stock split, which may be implemented prior to December 26, 2012, or the Reverse Stock Split. If our board of directors approves the Reverse Stock Split, then all of the outstanding and authorized shares of the Company's common stock immediately prior to the effective date of the Reverse Stock Split, or the Effective Date, will be reduced in

Table of Contents

proportion to the ratio of the Reverse Stock Split. In such event, proportionate adjustments would also be made to our outstanding equity awards, as well as the number of shares of our common stock available for award grants under our 2007 Equity Incentive Plan, as amended and restated. There can be no assurance that the Reverse Stock Split will have the intended effect or that any increase in the trading price of our common stock will be proportional to the decrease in the number of outstanding shares.

We currently expect that if the Reverse Stock Split is implemented, it will have a ratio of between one-for-three and one-for-five. However, our board of directors may approve the Reverse Stock Split with a ratio above or below that range. If we implement a one-for-three Reverse Stock Split, then on the Effective Date, each shareholder will receive one new share of our common stock in exchange for every three shares of our common stock such shareholder holds. If we implement a one-for-four Reverse Stock Split, then on the Effective Date, each shareholder will receive one new share of our common stock in exchange for every four shares of our common stock such shareholder holds. If we implement a one-for-five Reverse Stock Split, then on the Effective Date, each shareholder will receive one new share of our common stock in exchange for every five shares of our common stock such shareholder holds. The Reverse Stock Split would affect all outstanding and authorized shares of our common stock as well as the number of shares of common stock underlying stock options and other exercisable or convertible instruments outstanding on the Effective Date.

Common Stock

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

General Description of Preferred Stock

Our board of directors has the authority, without action by the shareholders, to designate and issue preferred stock in one or more series and to designate the rights, preferences and privileges of each series, which may be greater than the rights of the common stock. The prospectus supplement relating to the series of preferred stock offered by that supplement will describe the specific terms of those securities. It is not possible to state the actual effects of the issuance of any shares of preferred stock upon the rights of holders of the common stock until our board of directors determines the specific rights of the holders of such preferred stock. However, the effects could include, among other things:

restricting dividends on the common stock;

diluting the voting power of the common stock;

impairing the liquidation rights of the common stock; or

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

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

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

Table of Contents

(defined generally as a person or group of persons who acquire 10% or more of our voting securities) 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 any other receipt by the acquiring person of 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 two-thirds of the outstanding shares entitled to vote on the transaction, not counting shares as to which the acquiring person has beneficial ownership or voting control, transactions approved by our board of directors prior to the acquiring person first becoming an acquiring person or a merger, share exchange, consolidation, liquidation, distribution or certain other significant business transactions entered into with the acquiring person where certain requirements regarding the fairness of the consideration to be received by the shareholders have been met. We may not exempt ourselves from coverage of this statute. These statutory provisions may have the effect of delaying, deterring or preventing a change in control of the Company.

Our board of directors is divided into three approximately equal classes of directors serving staggered three-year terms. In addition, our 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 articles of incorporation limit cause to willful misfeasance having a material adverse effect on us or conviction of a felony, provided that any action by a director shall not constitute cause if, in good faith, the director believed the action to be in, or not opposed to, our best interests or if the director is entitled to be indemnified with respect to such action under applicable law, our articles of incorporation or bylaws or a contract with us. Further, our bylaws require a shareholder to provide notice to us of such shareholder's intention to nominate a person or persons for election as directors not later than 90 days prior to the first anniversary of the previous year's annual meeting or, in the case of an election to be held at a special meeting of the shareholders for the election of directors, the close of business on the tenth day following the date on which notice of such meeting is first given to shareholders. A shareholder must also provide us with notice of such shareholder's intent to make any proposal at an annual meeting of shareholders not later than 90 days prior to the first anniversary of the previous year's annual meeting of shareholders. These provisions may have the effect of deterring hostile takeovers or delaying a change in control of our management.

On December 28, 2009, we entered into our rights plan with Computershare Trust Company, N.A., as rights agent. In connection with our rights plan, one preferred stock purchase right was distributed for each common share held as of the close of business on January 7, 2010. Initially, the rights are not exercisable and are attached to, and trade with, all of the shares of our common stock outstanding as of, and issued subsequent to, the record date (as defined in the rights plan). As adjusted in connection with our one-for-six reverse stock split effected on May 15, 2011, each right, if and when it becomes exercisable, will entitle the holder to purchase six ten-thousandths of a share of a new series of junior participating cumulative preferred stock for \$36.00, subject to standard adjustment in the rights plan. Upon the acquisition of 20% or more of our common stock by a person or group, subject to certain exceptions (such acquisition referred to herein as a 20% acquisition), the rights will become exercisable for our preferred stock, except for those rights held by such 20% acquirer, which will become null and void. Upon a 20% acquisition, the holder of an exercisable right will be entitled to receive, upon exercise, in lieu of preferred stock, that number of shares of our common stock, or in certain circumstances, including if there are insufficient shares of our common stock to permit the exercise in full of the rights, preferred stock, other securities, cash, property or a reduction in the exercise price of the rights, or any combination of the foregoing, having a market value of two times the exercise price of the right.

If we are acquired in a merger, consolidation or certain other business combination transactions after a 20% acquisition, each holder of an exercisable right would then have the right to receive, upon exercise, common stock of the acquiring company having a market value equal to two times the exercise price of the right.

Our board of directors may redeem the rights for \$0.0006 per right or amend the rights plan at any time prior to a 20% acquisition or the expiration of the rights plan. The rights plan will expire on January 7, 2013, unless previously redeemed or exchanged by the Company.

Table of Contents

Transfer Agent and Registrar

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

Listing

Our shares of common stock trade on The NASDAQ Capital Market and the MTA in Italy under the symbol CTIC.

Table of Contents

DESCRIPTION OF DEBT SECURITIES

This summary, 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.

The debt securities may be either secured or unsecured and will either be senior debt securities or subordinated debt securities. 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 forms 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 the material provisions of the senior notes, the subordinated notes and the indentures are subject to, and qualified in their entirety by reference to, all of 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, to the extent applicable:

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 U.S. person for U.S. federal income 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;

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

whether or not the debt securities will be senior or subordinated, and the terms of the subordination of any series of subordinated debt;

Table of Contents

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;

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;

Edgar Filing: CELL THERAPEUTICS INC - Form 424B2

engage in transactions with shareholders 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 U.S. 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 U.S. 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.

Table of Contents

Conversion or Exchange Rights

We will set forth in the applicable prospectus supplements 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 form initially filed as exhibits to the registration statement of which this prospectus forms a part do not contain any covenant that 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 acquirer of such assets must assume all of our obligations under the indentures and the debt securities.

If the debt securities are convertible into 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.

Events of Default Under the Indentures

Unless otherwise specified in the applicable prospectus supplement, 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 validly extended;

if we fail to pay the principal, or premium, if any, or to make payment required by any sinking fund or analogous fund when due and payable and the time for payment has not been validly extended;

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 may, by notice to us in writing (and to the debenture trustee if notice is given by such holders), declare the unpaid principal, 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 series 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.

Table of Contents

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;

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 modify an indenture without the consent of any holders with respect to specific matters, including, without limitation:

to fix any ambiguity, defect or inconsistency in the indenture or in the debt securities of any series;

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

to comply with any requirements of the SEC in connection with the qualification of any indenture under the Trust Indenture Act;

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

Edgar Filing: CELL THERAPEUTICS INC - Form 424B2

to provide for uncertificated debt securities in addition to or in place of certificated 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, authentication and delivery of debt securities of any series;

to provide for the issuance of and establish the form and terms and conditions of the debt securities of any series authorized pursuant to the indentures, to establish the form of any certifications required to be furnished pursuant to the indentures or any series or to add to the rights of the holders of any series of debt securities;

Table of Contents

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 adversely affect the rights of any holder of debt securities of any series in any material respect; In addition, under the indentures, the rights of holders of debt securities of any series 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 debt securities of any series;

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

The indentures provide that we can elect to be discharged from our obligations with respect to one or more series of debt securities, except for certain obligations, including obligations to:

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

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

maintain paying agencies;

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, or a combination of both, sufficient to pay all of the principal, 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, New York, New York, known as DTC, or another depository named by us and identified in a prospectus supplement with respect to that series.

Edgar Filing: CELL THERAPEUTICS INC - Form 424B2

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 supplements, 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

Table of Contents

designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, we will not impose a service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges applicable to or associated with such registration of transfer or exchange.

We will name in the applicable prospectus supplements 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 certain 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.

Table of Contents

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 form initially filed as exhibits to the registration statement of which this prospectus forms 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. Additional or different subordination provisions may be described in a prospectus supplement relating to a particular series of debt securities.

Table of Contents

DESCRIPTION OF WARRANTS

This summary, 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, debt securities and/or rights 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. Each series of warrants will be issued under a separate warrant agreement to be entered into between us and a bank or trust company, as warrant agent, all as set forth in the prospectus supplement relating to the particular issue of offered warrants. 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 of 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 pursuant to this prospectus, as well as the complete warrant agreements that contain the terms of the warrants.

General

We will describe in the applicable prospectus supplements 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;

Edgar Filing: CELL THERAPEUTICS INC - Form 424B2

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

the number of warrants outstanding, if any;

a discussion of any material U.S. federal income tax considerations applicable to the warrants;

the terms, if any, on which we may accelerate the date by which the warrants must be exercised;

Table of Contents

whether the warrants are issued pursuant to a warrant agreement with a warrant agent or issued directly by us; 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 supplements 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;

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;

the number of warrants outstanding, if any;

a discussion of any material U.S. federal income tax considerations applicable to the warrants;

the terms, if any, on which we may accelerate the date by which the warrants must be exercised;

whether the warrants are issued pursuant to a warrant agreement with a warrant agent or issued directly by us; 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.

Edgar Filing: CELL THERAPEUTICS INC - Form 424B2

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 or preferred stock are exercised, holders of the warrants will not have any rights of holders of the underlying common stock or preferred stock, 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 or preferred stock, as the case may be, at the exercise price described in the applicable prospectus supplements. 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.

Table of Contents

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

delivering to us or to the warrant agent the payment required by the applicable prospectus supplements 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 us or to the warrant agent within five business days of receipt of payment of the exercise price.

If the holder complies with the procedures described above, the warrants will be considered to have been exercised when we receive or the warrant agent receives, as applicable, 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 the holder has completed those procedures and subject to the foregoing, we will, as soon as practicable, issue and deliver to such holder the debt securities, common stock or preferred stock that such holder purchased upon exercise. If the holder exercises fewer than all of the warrants represented by a warrant certificate, a new warrant certificate will be issued to such holder 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, correct or supplement 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 materially adversely affect the interests of the holders of the warrants.

Warrant Adjustments

Unless the applicable prospectus supplements state 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 supplements state 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;

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.

Table of Contents

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

DESCRIPTION OF RIGHTS

This summary, together with the additional information we include in any applicable prospectus supplements, summarizes the material terms and provisions of the rights that we may offer under this prospectus, which consist of rights to purchase our common stock, preferred stock and/or debt securities in one or more series. Rights may be offered independently or together with our common stock, preferred stock, debt securities and/or warrants 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 rights we may offer pursuant to this prospectus, we will describe the particular terms of any rights that we may offer in more detail in the applicable prospectus supplements. The terms of any rights we offer under a prospectus supplement may differ from the terms we describe below.

The applicable prospectus supplements relating to any rights that we offer will include specific terms of any offering of rights for which this prospectus is being delivered, including the following, to the extent applicable:

the date for determining the persons entitled to participate in the rights distribution;

the price, if any, per right;

the exercise price payable for each share of common stock, share of preferred stock or debt security upon the exercise of the rights;

the number of rights issued or to be issued to each holder;

the number and terms of the shares of common stock, shares of preferred stock or debt securities that may be purchased per each right;

the extent to which the rights are transferable;

any other terms of the rights, including the terms, procedures and limitations relating to the exchange and exercise of the rights;

the respective dates on which the holder's ability to exercise the rights will commence and will expire;

the number of rights outstanding, if any;

a discussion of any material U.S. federal income tax considerations applicable to the rights;

the extent to which the rights may include an over-subscription privilege with respect to unsubscribed securities; and

if applicable, the material terms of any standby underwriting or purchase arrangement entered into by us in connection with the offering of such rights.

Edgar Filing: CELL THERAPEUTICS INC - Form 424B2

The description in the applicable prospectus supplements of any rights that we may offer will not necessarily be complete and will be qualified in its entirety by reference to the applicable rights agreement and/or rights certificate, which will be filed with the SEC in connection therewith.

Table of Contents

DESCRIPTION OF UNITS

This summary, together with the additional information we include in any applicable prospectus supplements, summarizes the material terms and provisions of the units that we may offer under this prospectus, which may consist of one or more shares of common stock, shares of preferred stock, debt securities, warrants, rights or any combination of such securities. While the terms we have summarized below will generally apply to any future units we may offer pursuant to this prospectus, we will describe the particular terms of any units that we may offer in more detail in the applicable prospectus supplements. The terms of any units we offer under a prospectus supplement may differ from the terms we describe below.

The applicable prospectus supplements relating to any units that we offer will include specific terms of any offering of units for which this prospectus is being delivered, including the following, to the extent applicable:

the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;

whether we will apply to have the units traded on a securities exchange or securities quotation system;

a discussion of any material U.S. federal income tax considerations applicable to the units; and

how, for U.S. federal income tax purposes, the purchase price paid for the units is to be allocated among the component securities. The description in the applicable prospectus supplements of any units that we may offer will not necessarily be complete and will be qualified in its entirety by reference to the applicable unit agreement, which will be filed with the SEC in connection therewith.

Table of Contents

PLAN OF DISTRIBUTION

We may sell the securities offered pursuant to this prospectus and any accompanying prospectus supplements from time to time in one or more transactions:

to or through one or more underwriters or dealers;

to investors directly;

through agents; or

through any combination of these methods of sale.

Our securities may be offered and sold from time to time in one or more transaction at:

a fixed price or prices, which may be changed;

market prices prevailing at the time of sale;

prices related to the prevailing market prices; or

negotiated prices.

Any of the prices at which we sell securities may be at a discount to market prices. Broker-dealers may also receive from us, as applicable, or the purchasers of the securities compensation that is not expected to exceed that customary in the types of transactions involved.

Each prospectus supplement, to the extent applicable, will describe the number and terms of the securities to which such prospectus supplement relates, including:

any over-allotment options under which underwriters, if any, may purchase additional securities;

the name or names of any underwriters or agents with whom we have entered into an arrangement with respect to the sale of such securities;

the public offering or purchase price of such securities;

any underwriting discounts or commissions or agency fees or other items constituting underwriter or agent compensation;

any discounts, commissions or concessions allowed or reallocated or paid to dealers;

any securities exchanges or markets on which the securities may be listed; and

the net proceeds we will receive from such sale.

Underwritten Offerings

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 applicable prospectus supplement will name any underwriter involved in a sale of securities. Such securities may be either offered to the public through underwriting syndicates represented by managing underwriters, or directly by underwriters. Underwriters may sell the securities to or through dealers, and such dealers may receive compensation in the form of discounts. 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 any such underwriters in the applicable prospectus supplement, naming the underwriter and the nature of any such relationship.

Table of Contents

Direct Sales and Sales through Agents

We may sell securities directly to institutional investors or others who may be deemed to be underwriters within the meaning of the Securities Act of 1933, as amended, or the Securities Act, with respect to any sale of those securities. We also may, from time to time, authorize dealers or agents to offer and sell these securities, upon such terms and conditions as may be set forth in the applicable prospectus supplement, if applicable. In order to comply with the securities laws of certain states, if applicable, the securities offered will be sold in such jurisdictions only through registered or licensed brokers or dealers. In addition, in certain states securities may not be sold 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. This prospectus, one or more prospectus supplements, and the registration statement of which this prospectus forms a part may be used in conjunction with one or more other registration statements to the extent permitted by the Securities Act and the rules and regulations promulgated thereunder.

Rights Offerings

We also may sell directly to investors through subscription rights distributed to our shareholders on a pro rata basis. In connection with any distribution of subscription rights to shareholders, if all of the underlying securities are not subscribed for, we may sell the unsubscribed shares of our securities 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.

We may also sell securities in one or more of the following transactions:

block transactions (which may involve crosses) in which a broker-dealer may sell all or a portion of the shares as agent but may position and resell all or a portion of the block as principal to facilitate the transaction;

purchases by a broker-dealer as principal and resale by the broker-dealer for its own account;

ordinary brokerage transactions and transactions in which a broker-dealer solicits purchasers;

sales at the market to or through a market maker or into an existing trading market, on an exchange or otherwise, for securities; and

sales in other ways not involving a market maker or established trading markets, including direct sales to purchasers.

We may also enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. In connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and will be identified in the applicable prospectus supplement or in a post-effective amendment to the registration statement of which this prospectus forms a part.

Any dealers or agents that participate in the distribution of securities may be deemed to be underwriters under the Securities Act, and in such event, any discounts or commissions received by them and any profit realized by them on the resale of securities they realize may be deemed to be underwriting discounts and commissions under the Securities Act.

Indemnification

Underwriters, dealers and agents and remarketing firms may be entitled, under agreements entered into with us, to indemnification against and contribution toward certain civil liabilities, including liabilities under the Securities Act, or to contribute with respect to payments that the agents, dealers, underwriters or remarketing firms may be required to make.

Table of Contents

Stabilization

In connection with any offering of the securities hereby, certain underwriters and selling group members and their respective affiliates may engage in transactions that stabilize, maintain or otherwise affect the market price of the applicable securities. These transactions may include stabilization transactions pursuant to which these persons may bid for or purchase securities for the purpose of stabilizing their market price.

The underwriters in an offering of securities may also create a short position for their account by selling more securities in connection with the offering than they are committed to purchase from us. In that case, the underwriters could cover all or a portion of the short position by either purchasing securities in the open market following completion of the offering of these securities or by exercising any over-allotment option granted to them by us. In addition, the managing underwriter may impose penalty bids under contractual arrangements with other underwriters, which means that it can reclaim from an underwriter (or any selling group member participating in the offering) for the account of the other underwriters, the selling concession for the securities that are distributed in the offering but subsequently purchased for the account of the underwriters in the open market. Any of the transactions described in this paragraph or comparable transactions that are described in any accompanying prospectus supplement may result in the maintenance of the price of the securities at a level above that which might otherwise prevail in the open market. None of the transactions described in this paragraph or in an accompanying prospectus supplement are required to be taken by an underwriter and, if they are undertaken, may be discontinued at any time.

Under applicable rules and regulations under the Exchange Act, under certain circumstances a person engaged in the distribution of the securities offered under this prospectus and the accompanying prospectus supplement may not simultaneously engage in market making activities with respect to our securities for a specified period prior to the commencement of such distribution.

Passive Market-Making on NASDAQ

Any underwriters who are qualified market makers on The NASDAQ Capital Market may engage in passive market making transactions in our common stock on The NASDAQ Capital Market in accordance with Rule 103 of Regulation M. 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 making bid, however, the passive market making bid must then be lowered when certain purchase limits are exceeded.

Remarketing Arrangements

Offered securities may also be offered and sold in connection with a remarketing upon their purchase, in accordance with a redemption or repayment pursuant to their terms, or otherwise, by one or more remarketing firms, acting as principals for their own accounts or as agents for us. We will identify any remarketing firm and describe the terms of its agreements, if any, with us and its compensation in the applicable prospectus supplement.

Delayed Delivery Contracts

If indicated in the applicable prospectus supplement, we will authorize dealers acting as our agents to solicit offers by institutions to purchase securities covered by this prospectus from us at the public offering price set forth in the relevant prospectus supplement under delayed delivery contracts providing for payment and delivery on the date or dates stated in the relevant prospectus supplement. Each delayed delivery contract will be for an amount not less than, and the aggregate principal amount of securities sold pursuant to delayed delivery contracts shall be not less nor more than, the respective amounts stated in the applicable prospectus supplement.

Table of Contents

Institutions with whom delayed delivery contracts, when authorized, may be made include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions, and other institutions, but will in all cases be subject to our approval. Delayed delivery contracts will not be subject to any conditions except (i) the purchase by an institution of the securities covered by its delayed delivery contracts may not at the time of delivery be prohibited under the laws of any jurisdiction in the United States to which the institution is subject, and (ii) if the securities are being sold to underwriters, we will be required to have sold to such underwriters the total principal amount of the securities less the principal amount thereof covered by delayed delivery contracts. The underwriters and any other agents will not have any responsibility in respect of the validity or performance of delayed delivery contracts.

Other Relationships

Underwriters, dealers, agents and remarketing firms may engage in transactions with, or perform services for, us and our affiliates in the ordinary course of business. Unless we specify otherwise in the related prospectus supplement, each class or series of securities will be a new issue with no established trading market, other than shares of our common stock, which are listed on The NASDAQ Capital Market. It is possible that one or more underwriters may make a market in our securities, but will not be obligated to do so and may discontinue any market making at any time without notice. Therefore, no assurance can be given as to the liquidity of the trading market for our securities.

Table of Contents

LEGAL MATTERS

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

EXPERTS

Stonefield Josephson, Inc., an independent registered public accounting firm, has audited our consolidated financial statements for the year ended December 31, 2009, included in our Annual Report on Form 10-K for the year ended December 31, 2011, as set forth in its report, which is incorporated by reference in this prospectus and elsewhere in the registration statement of which this prospectus forms a part (which report includes an explanatory paragraph as to the Company's ability to continue as a going concern). Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

Marcum LLP, an independent registered public accounting firm, has audited our consolidated financial statements at December 31, 2011, and December 31, 2010, and for the years then ended, included in our Annual Report on Form 10-K for the year ended December 31, 2011, as set forth in its report, which is incorporated by reference in this prospectus and elsewhere in the registration statement of which this prospectus forms a part (which report includes an explanatory paragraph as to the Company's ability to continue as a going concern). Such consolidated financial statements 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

40,000 Shares of Series 17 Preferred Stock

CELL THERAPEUTICS, INC.

PROSPECTUS SUPPLEMENT

Sole Book-Running Manager

Jefferies

Co-Managers

Roth Capital Partners

ThinkEquity LLC

October , 2012