

CELL THERAPEUTICS INC
Form 424B2
May 30, 2012
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Filed pursuant to Rule 424(b)(2)
File Nos. 333-161442 and 333-177506

PROSPECTUS SUPPLEMENT

(to Prospectuses dated February 16, 2011 and dated October 25, 2011)

CELL THERAPEUTICS, INC.

\$40,000,000 of Shares of Series 15 Preferred Stock and Warrants to

Purchase Shares of Common Stock

**(and the shares of common stock issuable from time to time upon conversion,
exercise or exchange thereof)**

Pursuant to this prospectus supplement and the accompanying prospectuses, we are offering an aggregate of \$40,000,000 of shares of Series 15 Convertible Preferred Stock and warrants to purchase shares of common stock, or the warrants (and the shares of common stock issuable from time to time upon conversion of the Series 15 Convertible Preferred Stock and exercise or exchange of the warrants) to Socius CG II, Ltd., an institutional accredited investor, or the Initial Purchaser, pursuant to the terms of a Securities Purchase Agreement dated May 28, 2012, or the Purchase Agreement.

This prospectus supplement and the accompanying prospectuses also cover the sale of these securities by the Initial Purchaser to the public. The Initial Purchaser is an underwriter within the meaning of Section 2(a)(11) of the Securities Act of 1933, as amended, or the Securities Act, and any profits on the sales of our securities by the Initial Purchaser and any discounts, commissions or concessions received by the Initial Purchaser may be deemed to be underwriting discounts and commissions.

We expect to initially issue 20,000 shares of Series 15 Convertible Preferred Stock, or the Series 15-1 Preferred Stock, (convertible into an aggregate of 20,000,000 shares of common stock issuable from time to time upon conversion at a conversion price of \$1.00 per share) and warrants to purchase up to 13,333,332 shares of common stock with an exercise price per share of \$1.092, on or around May 29, 2012, or the initial closing, for gross proceeds of \$20,000,000.

Subject to certain terms and conditions, the Initial Purchaser has also agreed to purchase and we have agreed to sell 20,000 shares of Series 15 Convertible Preferred Stock, or the Series 15-2 Preferred Stock, and warrants to purchase shares of common stock on the 60th day after the initial closing, or the second closing, for gross proceeds of \$20,000,000. The exercise price of the warrants issued in the second closing will equal a 20% premium to the closing bid price of our common stock on The NASDAQ Capital Market calculated one trading day prior to the date of the second closing. The conversion price of the Series 15-2 Preferred Stock shall equal the closing bid price of our common stock on The NASDAQ Capital Market calculated one trading day prior to the date of the second closing, plus \$0.08375.

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All warrants issued in this offering are exercisable beginning on or after the date of issuance and expire five years after the date of issuance. If the market price is less than the exercise prices, the warrants may also be exchanged for shares of common stock based on the specified Black-Scholes formula.

The shares of Series 15-1 and Series 15-2 Preferred Stock are referred to collectively in this prospectus supplement as the Series 15 Preferred Stock. For a more detailed description of the Series 15 Preferred Stock and warrants, see the sections entitled "Description of Series 15 Preferred Stock" and "Description of Warrants" beginning on pages S-19 and S-22, respectively, of this prospectus supplement. For a more detailed description of our common stock issuable upon conversion of the Series 15 Preferred Stock and exercise and exchange of the warrants, see the section entitled "Description of Capital Stock" beginning on page S-24 of this prospectus supplement.

We will pay a placement agent fee of 5% of the gross proceeds raised at each of the initial closing and second closing to Halcyon Cabot Partners, Ltd., as the sole placement agent for the issuance of the Series 15 Preferred Stock and warrants to the Initial Purchaser. After deducting our estimated offering expenses, including the placement fee, we expect to receive net proceeds of approximately \$18.6 million at the initial closing, and, if funded in full, approximately \$18.9 million at the second closing.

The Series 15 Preferred Stock and warrants will not be listed on any national securities exchange. Our common stock is quoted on The NASDAQ Capital Market and on the Mercato Telematico Azionario, or the MTA, stock market in Italy under the symbol CTIC. On May 25, 2012, the last reported sale price of our common stock on The NASDAQ Capital Market was \$0.91.

Investing in our securities involves a high degree of risk. See the section entitled "Risk Factors" beginning on page S-11 of this prospectus supplement and in the documents we incorporate by reference in this prospectus supplement to read about factors you should consider before investing in our securities.

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

This prospectus supplement is dated May 29, 2012.

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

We are not making an offer of the Series 15 Preferred Stock and warrants (or the shares of common stock issuable from time to time upon conversion of the Series 15 Preferred Stock and exercise and exchange of the warrants) covered by this prospectus supplement in any jurisdiction where the offer is not permitted.

The information contained in this prospectus supplement, the accompanying prospectuses 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 prospectuses, or of any sale of the Series 15 Preferred Stock (or shares of common stock issuable upon conversion of the Series 15 Preferred Stock) and warrants (or the shares of common stock issuable from time to time upon exercise and exchange of the warrants). You should not assume that the information contained in or incorporated by reference in this prospectus supplement or the accompanying prospectuses is accurate as of any date other than the respective dates thereof.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of this offering of Series 15 Preferred Stock (and the shares of common stock issuable upon conversion of the Series 15 Preferred Stock) and also adds to and updates information contained in the accompanying prospectuses and the documents incorporated by reference. The second part is the accompanying prospectuses, 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 prospectuses or any document incorporated by reference, on the other hand, you should rely on the information in this prospectus supplement.

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 you to in the section of this prospectus supplement entitled "Incorporation of Certain Documents by Reference."

The information contained in or incorporated by reference in this prospectus supplement or the accompanying prospectuses is accurate only as of 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 prospectuses are part of a registration statement that we filed with the SEC. This prospectus supplement and the accompanying prospectuses 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 prospectuses concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings. You should review the complete document to evaluate these statements.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

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

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prospectuses 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 Report on Form 10-Q for the fiscal quarter ended March 31, 2012 filed with the SEC on April 20, 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 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) and May 14, 2012 (Item 8.01 only); 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 supplement and the accompanying prospectuses 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 prospectuses. 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 prospectuses 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 prospectuses 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.

501 Elliott Avenue West, Suite 400

Seattle, Washington 98119

(206) 282-7100

Attention: Investor Relations

As of June 1, 2012, 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

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectuses and the documents incorporated by reference may contain forward-looking statements within the meaning 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 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 timing of and the completion of the acquisition of pacritinib from S**BIO* Pte Ltd., a Singapore private limited company, or S**BIO*, or the projected benefits of the acquisition of pacritinib from S**BIO*, or our ability to implement our plans, strategies and objectives related to the acquisition and development of pacritinib from S**BIO*;

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 S**BIO* Pte Ltd., 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;

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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. Our future financial condition and results of operations, as well as any forward-looking statements, are subject to inherent risks and uncertainties, including, but not limited to, the risk factors described in the section of this prospectus supplement entitled Risk Factors. All forward-looking statements and reasons why results may differ included in this prospectus supplement are made as of the date hereof, and we assume no obligation to update any such forward-looking statement or reason why actual results might differ, except to the extent required by law.

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SUMMARY

The following summary highlights information contained elsewhere, or incorporated by reference, in this prospectus supplement and the accompanying prospectuses. 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 prospectuses carefully, including the financial statements and the documents incorporated by reference. Unless otherwise specified in the following summary, the terms of the Series 15 Preferred Stock issued in the initial closing and second closing are the same and the terms of the warrants issued in the initial closing and second closing are the same.

Our Company

We develop, acquire and commercialize novel treatments for cancer. Our goal is to build a leading biopharmaceutical company with a diversified portfolio of proprietary oncology drugs. Our research, development, acquisition and in-licensing activities concentrate on identifying and developing new, less toxic and more effective ways to treat cancer. Our operations are primarily conducted in the United States. We are currently focusing our efforts on the European commercial launch for Pixuvri (pixantrone) and on the development of pacritinib and tosedostat and to a lesser extent OPAXIO (paclitaxel poliglumex).

Corporate Information

We were incorporated in the State of Washington in 1991. Our shares of common stock trade on The NASDAQ Capital Market and the MTA in Italy under the symbol CTIC. Our principal executive offices are located at 501 Elliott Avenue West, Suite 400, Seattle, Washington 98119, and our phone number is (206) 282-7100. As of June 1, 2012, our new offices will be located at 3101 Western Avenue, Suite 600, Seattle, Washington 98121. 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 prospectuses.

Recent Developments

Acquisition of Janus Associated Kinase 2 Compounds from S*BIO Pte Ltd.

On April 18, 2012, we entered into an asset purchase agreement with S*BIO to acquire all right, title and interest in, and assume certain liabilities relating to, certain intellectual property and other assets related to compounds SB1518, or pacritinib, and SB1578, or collectively, the Seller Compounds, which inhibit Janus Associated Kinase 2, which is commonly referred to as JAK2 inhibitors. Pacritinib is an oral highly selective JAK2 inhibitor for which phase I and II clinical trials have been completed as treatment for patients with primary or secondary myelofibrosis, or MF, and relapsed lymphoma. Phase I and II clinical trials have focused on pacritinib as treatment for patients with MF with blood platelet counts below 150×10^9 per liter phase III clinical trial are expected to begin during the second half of 2012.

The closing of the asset purchase will occur on the second business day after all conditions to closing pursuant to the agreement have been satisfied or waived, and may be terminated prior to closing under certain circumstances, including if closing conditions have not been met within 45 days of the date of the agreement, which is expected to take place on or around June 3, 2012 or earlier. In consideration of the assets and rights acquired under the agreement, we will make an initial upfront payment of USD\$15 million in cash and issue shares of preferred stock convertible into 12,605,042 shares of our common stock to S*BIO at the closing of the asset purchase. Our existing cash and cash equivalents are not sufficient to close the acquisition of the Seller

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Compounds from S*BIO and fund development of the Seller Compounds. The shares of preferred stock will be issued pursuant to an exemption from registration under Section 4(2) of the Securities Act of 1933, as amended, or the Securities Act, and are convertible into shares of our common stock 30 days after the closing.

On April 19, 2012 we made a \$2.0 million deposit creditable towards the purchase price, which deposit is non-refundable, subject to certain conditions within S*BIO's control.

As part of the consideration, S*BIO also has a contingent right to certain milestone payments and royalties from us in connection with any pharmaceutical product containing or comprising any Seller Compound for use for any specific disease, infection or other condition recognized by U.S. regulatory authorities. Up to an aggregate amount of \$132.5 million in potential regulatory milestone payments will be made to S*BIO if certain U.S., E.U. and Japanese regulatory approvals are obtained or if certain worldwide net sales thresholds are met. In addition, S*BIO will also be entitled to receive royalty payments at incremental rates based on certain worldwide net sales thresholds on a product-by-product and country-by-country basis.

Pursuant to the terms of the agreement, we are expected to enter into a registration rights agreement with S*BIO on the date of the closing of the asset purchase. Pursuant to the registration rights agreement, we have agreed to file a registration statement with the SEC within 30 days after the closing for purposes of registering the resale of all of the shares of our common stock issuable upon conversion of the preferred stock issued to S*BIO pursuant to the agreement. We have agreed to use our commercially reasonable efforts to have the registration statement declared effective by the SEC within 90 days following the closing. We have also agreed, among other things, to indemnify the selling holders under the registration statement from certain losses and to pay all fees and expenses (excluding legal fees of any selling holder) in connection with our registration obligations under the registration rights agreement.

At our election, we may pay up to 50% of any milestone payment to S*BIO through the issuance of shares of common stock or shares of preferred stock convertible into shares of common stock, provided that in no event will the issuances of the shares of common stock or preferred stock in connection with the asset purchase, in the aggregate, equal or exceed 20% of our common stock or voting power outstanding as of the date of the agreement, except with the prior approval of our shareholders.

Pixuvri

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, 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

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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 plan to resubmit our NDA for Pixuvri in the second half of 2012 and plan on discussing with the FDA any supplemental information we may provide prior to our resubmission to aid in addressing any potential issues or concerns.

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The Offering

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

Securities we are offering	We are offering an aggregate of \$40,000,000 of the Series 15 Preferred Stock and warrants (and the shares of common stock issuable from time to time upon conversion of the Series 15 Preferred Stock and exercise and exchange of the warrants), to the Initial Purchaser, pursuant to the terms of the Purchase Agreement. The shares of Series 15 Preferred Stock and the warrants will be issued separately, but can only be purchased together in this offering. The closing of this offering will occur in two stages.
Securities we are offering in the initial closing	We expect to initially issue 20,000 shares of Series 15-1 Preferred Stock (convertible into an aggregate of 20,000,000 shares of common stock issuable from time to time upon conversion at a conversion price of \$1.00 per share) and warrants to purchase up to 13,333,332 shares of common stock with an exercise price per share of \$1.092, on or around May 29, 2012 for gross proceeds of \$20,000,000.
Securities we are offering in the second closing	Subject to certain terms and conditions, the Initial Purchaser has also agreed to purchase and we have agreed to sell 20,000 shares of Series 15 Convertible Preferred Stock, or the Series 15-2 Preferred Stock, and warrants to purchase shares of common stock on the 60 th day after the initial closing, or the second closing, for gross proceeds of \$20,000,000. The exercise price of the warrants issued in the second closing will equal a 20% premium to the closing bid price of our common stock on The NASDAQ Capital Market calculated one trading day prior to the date of the second closing. The conversion price of the Series 15-2 Preferred Stock shall equal the closing bid price of our common stock on The NASDAQ Capital Market calculated one trading day prior to the date of the second closing, plus \$0.08375.
Investor ownership limitations	In the event that on the date of the second closing, funding the entire \$20,000,000 would cause the Initial Purchaser to own more than 9.9% of our common stock, solely as a result of the second closing causing the Initial Purchaser to exceed this 9.9% ownership threshold or would violate limitations on issuances by us, the Initial Purchaser has agreed to fund a minimum of \$10,000,000 and in any event will fund the maximum amount the Initial Purchaser can fund under these restrictions. We will be subject to restrictions on the sale of securities through 60 days after the date of the second closing, subject to certain exceptions. If the Initial Purchaser is unable to fund the entire remaining unfunded balance of the \$20,000,000 within 30 days from the second closing, we will not be subject to any restriction

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	on the issuance of additional securities upon the expiration of such 30 day period. We may terminate the agreement if required to maintain our compliance with NASDAQ requirements.
Company issuance limitations	The total number of securities issued in the offering may be limited to 19.99% of the shares outstanding on the date prior to the execution and delivery of the Purchase Agreement under certain circumstances and is subject to other issuance limitations.
Description of the Series 15 Preferred Stock	
Dividends	Holders of the Series 15 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 15 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 15 Preferred Stock of \$1,000 per share to be converted, by (ii) the applicable conversion price. The conversion price of the Series 15 Preferred Stock is subject to adjustment in certain events (including certain fundamental changes), which are explained in more detail under the section entitled Description of Series 15 Preferred Stock.
Automatic conversion	On the first to occur of (i) the 30th day after the original issuance date of the Series 15 Preferred Stock, (ii) the date on which 5,000 or less shares of Series 15 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 15 Preferred Stock shall automatically convert into the number of shares of common stock determined by dividing (i) the aggregate stated value of the Series 15 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 15 Preferred Stock, and no holder may request a conversion of its Series 15 Preferred Stock, to the extent such conversion would result in the holder and its affiliates beneficially owning more than 9.9% of our common stock. 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.

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Liquidation preference	In the event of our voluntary or involuntary dissolution, liquidation or winding up, each holder of Series 15 Preferred Stock will be entitled to be paid a liquidation preference equal to the initial stated value of such holder's Series 15 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 15 Preferred Stock.
Voting rights	The Series 15 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 15 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 15 Preferred Stock, to repay, repurchase or offer to repay or repurchase or otherwise acquire any of our common stock or other securities junior to the Series 15 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 15 Preferred Stock.
Description of the warrants	The Initial Purchaser will receive warrants to purchase shares of common stock for each share of Series 15 Preferred Stock purchased in this offering. The warrants issued in this offering are exercisable beginning on or after the date of issuance and expire five years after the date of issuance. In the initial closing, each warrant to purchase shares of our common stock will have an exercise price of \$1.092 per share. The exercise price of the warrants issued in the second closing will equal a 20% premium to the closing bid price of our common stock on The NASDAQ Capital Market calculated one trading day prior to the date of the second closing. See Description of Warrants.
Cashless exercise	If at the time of exercise there is no effective registration statement registering the issuance of the shares of common stock issuable upon exercise of the warrants to the holder and all such shares are not then registered for resale by the holder, the holder may exercise the warrants by means of a cashless exercise or net exercise, in which case the holder would receive upon such exercise the net number of shares of common stock determined according to the formula set forth in the warrant.
Warrant exchange	If at any time the closing bid price of our common stock on The NASDAQ Capital Market is less than the exercise price of the warrant, the holder of such warrant will be entitled to exchange all or any portion of the warrant for shares of our common stock

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	<p>determined according to a specified Black-Scholes valuation formula set forth in the warrant subject to certain limitations. We may instead elect to pay all or some of such value in cash. If we elect not to pay in cash, are unable to issue sufficient shares without shareholder approval and have not obtained shareholder approval by the later of (i) 60 days after an exchange notice is received and (ii) 110 days after the initial closing, we will issue a note for the unpaid portion of the value payable one year thereafter or in connection with our next funding event (after the second closing), if earlier.</p>
Limitations on exercise and exchange	<p>No holder may exercise or exchange its warrants to the extent that the exercise or exchange, as applicable, would result in the holder and its affiliates beneficially owning more than 9.9% of our common stock.</p>
Use of proceeds after expenses	<p>We plan to use approximately \$15.7 million of the net proceeds from this offering to finance the purchase price of the acquisition of certain assets from S*BIO, including acquisition related fees and expenses. We plan to use the remainder of the net proceeds from this offering for activities related to preparing for the commercial launch of Pixuvri in the European Union and 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. See Use of Proceeds.</p>
No public market for the Series 15 Preferred Stock or warrants	<p>There is no established public trading market for the Series 15 Preferred Stock or warrants and we do not expect a market to develop. In addition, we do not intend to apply for listing the Series 15 Preferred Stock or warrants on any securities exchange.</p>
Market for our common stock	<p>Our common stock is quoted on The NASDAQ Capital Market</p> <p>and on the MTA stock market in Italy under the symbol CTIC.</p> <p>On May 25, 2012, the last reported sale price of our common stock on The NASDAQ Capital Market was \$0.91 per share.</p>
Risk factors	<p>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 prospectuses to read about factors you should consider before investing in our securities.</p>

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RISK FACTORS

*In addition to the risks described below, you should carefully consider the information under the heading **Risk Factors** beginning on page 32 of our **Quarterly Report on Form 10-Q** for the fiscal quarter ended March 31, 2012, filed with the SEC on April 20, 2012, which information is incorporated by reference into this prospectus supplement, and other information included in this prospectus supplement, the accompanying prospectuses 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 15 Preferred Stock or warrants being offered in this offering.

There is no established public trading market the Series 15 Preferred Stock or warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the Series 15 Preferred Stock or warrants on any securities exchange. Without an active market, the liquidity of the Series 15 Preferred Stock and warrants will be limited.

Purchasers who convert their shares of Series 15 Preferred Stock into common stock or exercise or exchange their warrants for shares of our common stock will incur immediate dilution.

Upon conversion, exercise or exchange of your shares of Series 15 Preferred Stock or warrants, as the case may be, you will experience immediate and substantial dilution because the per share conversion price of your shares of Series 15 Preferred Stock and the exercise price of your warrants will be higher than the net tangible book value per share of the outstanding common stock immediately after this offering. In addition, you will experience dilution when we issue additional shares of common stock that we are permitted or required to issue under outstanding warrants and options under our stock option plan or other employee or director compensation plans.

Holders of the Series 15 Preferred Stock or warrants will have no rights as a holder of common stock until they acquire common stock.

Until you acquire shares of common stock upon conversion of the Series 15 Preferred Stock or exercise or exchange of the warrants, as the case may be, you will have no rights with respect to our common stock, other than the right of the convertible preferred stock to receive dividends equal to and 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 15 Preferred Stock and/or exercise or exchange of your warrants, as the case may be, you will be entitled to exercise the rights of a holder of common stock only as to matters for which the record date occurs after the conversion, exercise or exchange 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 a portion of 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. We plan to use approximately \$15.7 million of the proceeds from this offering to finance the purchase price of certain assets of S***BIO** and acquisition related expenses and fees. See **Use of Proceeds**. Except with respect to the purchase of assets from S***BIO**, 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

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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.

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 15 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. Under the terms of the asset purchase agreement with S*BIO, we are required to issue \$15 million of preferred stock convertible into shares of our common stock upon closing of that transaction, and 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 May 25, 2012, our stock price has ranged from a low of \$0.82 to a high of \$2.31.

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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 in 2012 to generate additional funds to cover our current operating expenses;

our quarterly operating results;

developments or disputes concerning patent or other proprietary rights;

developments in our relationships with collaborative partners;

acquisitions or divestitures;

litigation and government proceedings;

adverse legislation, including changes in governmental regulation;

third-party reimbursement policies;

changes in securities analysts' recommendations;

short selling;

changes in health care policies and practices;

halting or suspension of trading in our common stock on The