CELL THERAPEUTICS INC Form S-3/A December 21, 2009 Table of Contents

As filed with the Securities and Exchange Commission on December 21, 2009

Registration No. 333-163479

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Amendment No. 1 to

FORM S-3

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

CELL THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Washington (State of other jurisdiction of

2834 (Primary Standard Industrial 91-1533912 (I.R.S. Employer

incorporation or organization)

Classification Code Number)
501 Elliott Avenue West, Suite 400

Identification No.)

Seattle, Washington 98119

(206) 282-7100

(Address, including zip code, and telephone number, including area code, of registrant s principal executive offices)

James A. Bianco, M.D.

Chief Executive Officer

Cell Therapeutics, Inc.

501 Elliott Avenue West, Suite 400

Seattle, Washington 98119

(206) 282-7100

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copy to:

C. Brophy Christensen, Esq.

O Melveny & Myers LLP

Two Embarcadero Center, 28th Floor

San Francisco, California 94111-3823

(415) 984-8700

Approximate date of commencement of proposed sale to the public:

From time to time after the effective date of this registration statement as determined by the selling shareholders.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. x

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

| Large accelerated filer | • | Accelerated filer | X |
|-------------------------|---|---------------------------|---|
| Non-accelerated filer | " (Do not check if a smaller reporting company) | Smaller reporting company | |

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. The selling shareholders may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This 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 DECEMBER 21, 2009

PROSPECTUS

5,607,468 Shares

Common Stock

The selling shareholders identified in this prospectus may sell up to 5,607,468 shares of our common stock. Those shares of common stock were originally issued by us in full satisfaction of such shareholders contingent right to certain milestone payments in connection with our acquisition of Systems Medicine, Inc., or SMI, in a stock for stock merger. The selling shareholders may offer and sell their shares in public or private transactions, or both. These sales may occur at fixed prices, at market prices prevailing at the time of sale, at prices related to prevailing market price, or at negotiated prices.

The selling shareholders may sell shares through underwriters, broker-dealers or agents, who may receive compensation in the form of discounts, concessions or commissions from the selling shareholders, the purchasers of the shares, or both. See Plan of Distribution for a more complete description of the ways in which the shares may be sold. We will not receive any of the proceeds from the sale of the shares by the selling shareholders.

Our common stock is quoted on The NASDAQ Capital Market and on the MTA stock market in Italy under the symbol CTIC . On December 18, 2009, the last reported sale price of our common stock on The NASDAQ Capital Market was \$1.14.

Investing in our common stock involves a high degree of risk. See the <u>Risk Factors</u> section beginning on page 3 of this prospectus and contained in our most recent Annual Report on Form 10-K and Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission to read about factors you should consider before investing in our common stock.

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

TABLE OF CONTENTS

| | Page |
|---|------|
| ABOUT THIS PROSPECTUS | ii |
| SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS | ii |
| SUMMARY | 1 |
| <u>THE OFFERING</u> | 2 |
| RISK FACTORS | 3 |
| <u>USE OF PROCEEDS</u> | 6 |
| DIVIDEND POLICY | 6 |
| DESCRIPTION OF CAPITAL STOCK | 6 |
| SELLING SHAREHOLDERS | 9 |
| PLAN OF DISTRIBUTION | 11 |
| LEGAL MATTERS | 13 |
| EXPERTS | 13 |
| WHERE YOU CAN FIND MORE INFORMATION | 14 |
| INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE | 14 |

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

We are not making an offer of our common stock covered by this prospectus in any jurisdiction where the offer is not permitted.

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

i

ABOUT THIS PROSPECTUS

This prospectus relates to the resale of up to 5,607,468 shares of our common stock by the selling shareholders identified in this prospectus. Those shares of common stock were originally issued by us in full satisfaction of such shareholders contingent right to certain milestone payments in connection with our acquisition of Systems Medicine, Inc., or SMI, in a stock-for-stock merger. We will not receive any proceeds from the potential sale of the shares offered by the selling shareholders.

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, the selling shareholders may, from time to time, sell common stock in one or more offerings. There is no limit on the aggregate amount of common stock described in this prospectus that the selling shareholders may sell pursuant to the registration statement.

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

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

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

In this prospectus, the terms CTI, Company, we, us, our and similar terms refer to Cell Therapeutics, Inc., a Washington corporation, and its

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

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

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

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

any statements concerning proposed new products or services;

subsidiaries, unless the context otherwise requires.

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

ii

Table of Contents

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

any statements regarding pending or future mergers or acquisitions; and

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

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

iii

SUMMARY

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

Our Company

We focus on the development, acquisition and commercialization of drugs for the treatment of cancer. Our principal business strategy is focused on cancer therapeutics, an area with significant market opportunity that we believe is not adequately served by existing therapies. Our operations are primarily conducted in the United States and we are winding down our operations in Italy. During 2008, we had one approved drug, Zevalin® (ibritumomab tiuxetan), or Zevalin, which we acquired in 2007, generating product sales. We contributed Zevalin to a joint venture, RIT Oncology, LLC, or RIT Oncology, upon its formation in December 2008 and in March 2009 we finalized the sale of our 50% interest in RIT Oncology to the other member of the joint venture, Spectrum Pharmaceuticals, Inc., or Spectrum. All of our current product candidates, including pixantrone, OPAXIO and brostallicin, are under development.

On July 31, 2007, we completed our acquisition of Systems Medicine, Inc., or SMI, a privately held oncology company, in a stock for stock merger valued at \$20 million. Under the acquisition agreement, the former SMI stockholders were granted a contingent right to receive up to \$15 million in additional consideration (payable in cash or stock at our election, subject to certain NASDAQ limitations on the issuance of stock) upon the achievement of certain U.S. Food and Drug Administration, or FDA, regulatory milestones, or the Earn Out Payment. Pursuant to that certain Second Amendment to Acquisition Agreement dated as of August 6, 2009, or the Second Amendment, the right to the Earn Out Payment was replaced by an immediate substitute payment of \$6 million, payable in shares of our common stock, subject to certain exceptions. Pursuant to the terms of the Second Amendment, on November 24, 2009, 5,607,468 restricted shares of our common stock were issued to the former SMI stockholders. This prospectus relates to the resale of such shares.

Corporate Information

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

1

Market for our common stock

THE OFFERING

Shares offered by the selling shareholders (1) 5,607,468 shares of common stock

Shares outstanding as of December 18, 2009 587,000,964 shares of common stock

Use of proceeds All shares of our common stock offered by this prospectus are being

registered for the account of the selling shareholders. We will not

receive any of the proceeds from the sale of these shares.

Risk Factors This investment involves a high degree of risk. See the Risk Factors

section beginning on page 3 of this prospectus and contained in our most recent Annual Report on Form 10-K and Quarterly Report on

Form 10-Q filed with the SEC to read about factors you should

consider before investing in 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 December 18, 2009, the last reported sale price of our common stock

on The NASDAQ Capital market was

\$1.14.

(1) Because the selling shareholders may sell all, part or none of their shares, we are unable to estimate the number of shares that will be held by the selling shareholders upon resale of shares of common stock being registered hereby. We have, therefore, assumed for the purposes of the registration statement related to this prospectus that the selling shareholders will sell all of their shares. See the section entitled Plan of Distribution, below.

RISK FACTORS

You should carefully consider the risks described below and other information in this prospectus and the documents incorporated by reference into this prospectus before deciding to invest in our common stock. If any of the following risks actually occur, they could materially adversely affect our business, financial condition, operating results or prospects. Additional risks and uncertainties that we do not presently know or that we currently deem immaterial may also impair our business, financial condition, operating results and prospects.

Risks Related to Holders of our Common Stock

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

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

Additionally, unlike indebtedness, where principal and interest customarily are payable on specified due dates, in the case of shares 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 shares of our common stock and have no current intention to pay dividends in the future. Further, shares of our common stock place no restrictions on our business or operations or on our ability to incur indebtedness or engage in any transactions, subject only to the voting rights available to shareholders generally.

The market price of shares of our common stock may be adversely affected by market conditions affecting the stock markets in general, including price and trading fluctuations on The NASDAO 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, shares of our 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. The market price of shares of our common stock or preferred stock could decline as a result of sales of a large number of shares of our common stock or preferred stock or similar securities in the market after consummation of this offering or the perception that such sales could occur in the future.

3

Table of Contents

The market price for 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 twelve month period ended December 18, 2009, our stock price has ranged from a low of \$0.05 to a high of \$2.23. Fluctuations in the trading price or liquidity of our common stock may adversely affect the value of your investment in our common stock.

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

| announcements by us or others of results of preclinical testing and clinical trials and regulatory actions; |
|---|
| announcements of technological innovations or new commercial therapeutic products by us, our collaborative partners or our present or potential competitors; |
| our issuance of additional debt, equity or other securities, which we need to pursue in 2009 to generate additional funds to cover our current debt and operating expenses; |
| our quarterly operating results; |
| developments or disputes concerning patent or other proprietary rights; |
| developments in our relationships with collaborative partners; |
| acquisitions or divestitures; |
| litigation and government proceedings; |
| adverse legislation, including changes in governmental regulation; |
| third-party reimbursement policies; |
| changes in securities analysts recommendations; |
| short selling; |
| changes in health care policies and practices; |

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

economic and other external factors; and

general market conditions.

4

Table of Contents

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

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

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

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

elimination of cumulative voting in the election of directors;

procedures for advance notification of shareholder nominations and proposals;

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

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

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

Risks Related to Our Company

See the Risk Factors section contained in our most recent Annual Report on Form 10-K and Quarterly Report on Form 10-Q filed with the SEC, which are incorporated herein by reference in their entirety.

5

USE OF PROCEEDS

All shares of our common stock offered by this prospectus are being registered for the account of the selling shareholders. We will not receive any of the proceeds from the sale of these shares.

DIVIDEND POLICY

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

DESCRIPTION OF CAPITAL STOCK

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

General

We are authorized to issue 800,000,000 shares of our common stock, no par value, and 10,000,000 shares of our preferred stock, no par value. As of December 18, 2009, there were 587,000,964 shares of our common stock outstanding, warrants to purchase

24,793,070 shares of our common stock outstanding and no shares of preferred stock outstanding.

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

Common Stock

Each holder of our common stock is entitled to one vote for each share held on all matters to be voted upon by the shareholders and there are no cumulative voting rights. A simple majority of all votes entitled to be cast by a voting group is sufficient to approve any plan of merger, plan of share exchange, or sale of assets other than in the usual and regular course of business. At each election of directors, every shareholder entitled to vote at such election has the right to vote the number of shares of stock held by such shareholder for each of the directors to be elected. 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 our common stock. All outstanding shares of common stock are fully paid and nonassessable. The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate in the future.

6

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 our common stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock upon the rights of holders of our common stock until the board of directors determines the specific rights of the holders of this preferred stock. However, the effects might include, among other things:

restricting dividends on our common stock;

diluting the voting power of our common stock;

impairing the liquidation rights of our common stock; or

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

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

Washington law contains certain provisions that may have the effect of delaying, deterring or preventing a change in control of the Company. Chapter 23B.19 of the Washington Business Corporation Act prohibits us, with certain exceptions, from engaging in certain significant business transactions with an acquiring person (defined as a person or group of persons who acquire 10% or more of our voting securities without the prior approval of the our board of directors) for a period of five years following the acquiring person s share acquisition date. The prohibited transactions include, among others, a merger or consolidation with, disposition of assets to, or issuance or redemption of stock to or from, the acquiring person, or otherwise allowing the acquiring person to receive a disproportionate benefit as a shareholder. Exceptions to this statutory prohibition include approval of the transaction at a shareholders meeting by holders of not less than a two-thirds of the shares held by each voting group entitled to vote on the transaction, not counting shares as to which the acquiring person has beneficial ownership or voting control, transactions approved by the board of directors prior to the acquiring person first becoming an acquiring person, or, with respect to a merger, share exchange, consolidation, liquidation or distribution entered into with the acquiring person, transactions where certain other requirements regarding the fairness of the consideration to be received by the shareholders have been met. We may not exempt ourselves from coverage of this statute. These statutory provisions may have the effect of delaying, deterring or preventing a change in control of the Company.

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

Table of Contents

of shareholders not later than 90 days prior to the first anniversary of the previous year s annual meeting of shareholders. These may have the effect of deterring hostile takeovers or delaying change in control of our management.

Transfer Agent and Registrar

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

8

SELLING SHAREHOLDERS

All of the shares of common stock registered for sale pursuant to this prospectus are owned by the selling shareholders. All of the shares offered hereby were acquired by the selling shareholders in satisfaction of certain potential milestone payments under the Second Amendment, among us and the stockholder representatives, on behalf of certain former stockholders of SMI. Except where otherwise noted, no selling shareholder has a material relationship with the Company.

The following table sets forth the names of the selling shareholders, the number of shares of common stock beneficially owned by the selling shareholders as of December 1, 2009, and the total number of shares that may be offered pursuant to this prospectus. The table also provides information regarding the beneficial ownership of our common stock by the selling shareholders as adjusted to reflect the assumed sale of all of the shares offered under this prospectus. Percentage of beneficial ownership is based on 587,000,964 shares of our common stock outstanding as of December 18, 2009. The selling shareholders may offer the shares for sale from time to time in whole or in part. Except where otherwise noted, each of the selling shareholders named in the following table has, to our knowledge, sole voting and investment power with respect to the shares beneficially owned by them.

| | Beneficial Ownership Before Offering Number of | | Number of Shares Being | Beneficial Ownership After Offering | |
|--|--|---------|---------------------------|--|---------|
| Selling Stockholder | Shares Owned | Percent | Registered | Shares | Percent |
| Daniel D. Von Hoff | 711,049 | * | 711,049 | | * |
| Richard L. Love ⁽¹⁾ | $1,511,112^{(2)}$ | * | 653,690 | 857,422 | * |
| Timothy J. Williamson | 636,804 | * | 636,804 | | * |
| Tucson Pharma Ventures, LLC | 455,327 | * | 455,327 | | * |
| Spyro Mousses | 295,119 | * | 295,119 | | * |
| Jeffrey Trent | 343,750 | * | 231,879 | 111,871 | * |
| Steven D. Weitman | 168,750 | * | 113,831 | 54,919 | * |
| Robert B. MacArthur | 189,723 | * | 127,979 | 61,744 | * |
| Translational Genomics Research Institute Foundation | 295,306 | * | 168,639 | 126,667 | * |
| Stoh Ventures Two, Ltd. | 710,913 | * | 694,596 | 16,317 | * |
| Effective Medical Solutions | 788,359 | * | 733,282 | 55,077 | * |
| Jeffrey H. Buchalter | 83,366 | * | 77,543 | 5,823 | * |
| Jeffrey E. Jacob | 248,976 | * | 248,976 | | * |
| National Foundation for Cancer Research | 152,478 | * | 141,826 | 10,652 | * |
| JFC Genomic Solutions, LLC | 195,348 | * | 170,127 | 25,221 | * |
| BGS Ventures, LLC | 85,306 | * | 79,347 | 5,959 | * |
| David B. Agus, M.D. | 7,251 | * | 6,745 | 506 | * |
| Patrick T. Shannon | 54,834 | * | 53,964 | 870 | * |
| Manuel Hidalgo, M.D., Ph.D. | 7,251 | * | 6,745 | 506 | * |

^{*} Less than 1%

⁽¹⁾ Mr. Love is a director of the Company and a member of the Board s Compensation Committee.

⁽²⁾ Includes 20,100 shares granted to Mr. Love under a restricted stock award which are subject to a vesting schedule; the shares issued as a restricted stock award are not part of this registration statement.

Table of Contents

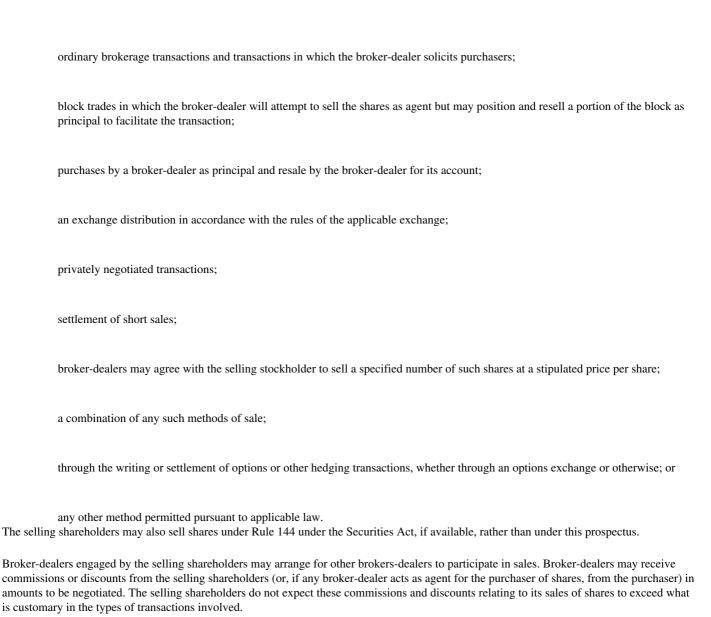
The selling shareholders provided us with information with respect to their aggregate share ownership, except for Manuel Hidalgo, M.D., Ph.D., whose beneficial ownership numbers were obtained from the shareholder records of the registrant s transfer agent. The transfer agent s records only provide information with respect to the record ownership of a shareholder, and do not reflect instances where each of these shareholders may beneficially own shares of the registrant in street name.

Because the selling shareholders may sell all, part or none of their shares, we are unable to estimate the number of shares that will be held by the selling shareholders upon resale of shares of common stock being registered hereby. We have, therefore, assumed for the purposes of the registration statement related to this prospectus that the selling shareholders will sell all of their shares. See the section entitled Plan of Distribution, below.

10

PLAN OF DISTRIBUTION

The selling shareholders and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of the shares of our common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These sales may be at fixed or negotiated prices. The selling shareholders may use any one or more of the following methods when selling shares of our common stock:



In connection with the sale of our common stock or interests therein, the selling shareholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling shareholders may also sell shares of our common stock short and deliver these securities to close out its short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling shareholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

11

Table of Contents

The selling shareholders and any broker-dealers or agents that are involved in selling the shares may be deemed to be underwriters within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. The selling shareholders have informed us that they do not have any agreement or understanding, directly or indirectly, with any person to distribute the common stock.

Because the selling shareholders may be deemed to be underwriters within the meaning of the Securities Act, they will be subject to the prospectus delivery requirements of the Securities Act. In addition, any securities covered by this prospectus which qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than under this prospectus. The selling shareholders have advised us that they have not entered into any agreements, understandings or arrangements with any underwriter or broker-dealer regarding the sale of the resale shares. There is no underwriter or coordinating broker acting in connection with the proposed sale of the resale shares by the selling shareholders.

The shares will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the shares 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.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale shares may not simultaneously engage in market making activities with respect to our common stock for a period of two business days prior to the commencement of the distribution. In addition, the selling shareholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of shares of our common stock by the selling shareholders or any other person. We will make copies of this prospectus available to the selling shareholders and have informed the selling shareholders of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale.

We will not receive any proceeds from the sale of the shares by the selling shareholders.

12

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

13

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 http://www.sec.gov. Copies of certain information filed by use with the SEC are also available on our website at http://www.celltherapeutics.com. You may also read and copy any document we file with the SEC at the SEC s Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330.

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

This prospectus is part of a registration statement we filed with the SEC. This prospectus omits some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits in the registration statement for further information about us and the securities being offered. 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

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

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