

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM S-8
REGISTRATION STATEMENT**

UNDER
THE SECURITIES ACT OF 1933

CYTORI THERAPEUTICS, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

33-0827593
(I.R.S. Employer
Identification No.)

3020 Callan Road
San Diego, California
(Address of Principal Executive Offices)

92121
(Zip Code)

Cytori Therapeutics, Inc. 2014 Equity Incentive Plan
(Full title of the plans)

Marc H. Hedrick, MD
President and Chief Executive Officer
Cytori Therapeutics, Inc.
3020 Callan Road
San Diego, California 92121
(858) 458-0900

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

Copy to:

Jeffrey T. Baglio, Esq.
DLA Piper LLP (US)
4365 Executive Drive, Suite 1100
San Diego, CA 92121
Tel: (858) 677-1400
Fax: (858) 677-1401

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.

Large accelerated filer Accelerated filer

Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Offering Price Per Share (2)	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fee
Common Stock, \$0.001 par value, reserved for issuance pursuant to the Cytori Therapeutics, Inc. 2014 Equity Incentive Plan	3,975,000	\$1.13	\$4,491,750	\$522

Total

3,975,000

\$1.13

\$4,491,750

\$522

(1) This Registration Statement on Form S-8 (this “Registration Statement”) covers (i) shares of Common Stock, par value \$0.001 per share (“Common Stock”), of Cytori Therapeutics, Inc. (the “Registrant”), issuable pursuant to the Cytori Therapeutics, Inc. 2014 Equity Incentive Plan (the “Plan”); and (ii) pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the “Securities Act”), any additional shares of Common Stock that become issuable under the Plan by reason of any stock dividend, stock split or other similar transaction.

(2) Estimated pursuant to Rule 457(h) and Rule 457(c) under the Securities Act, solely for the purpose of computing the registration fee, based on the average of the high and low prices reported for a share of Common Stock on the NASDAQ Global Market on March 13, 2015.

PART I
INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The documents containing the information specified in Part I, Items 1 and 2, will be sent or given to participants in accordance with Form S-8 and Rule 428(b)(1) under the Securities Act of 1933, as amended (the "Securities Act"). In accordance with the rules and regulations of the Securities and Exchange Commission (the "Commission") and the instructions to Form S-8, such documents are not being filed with the Commission either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 under the Securities Act.

PART II
INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference

The following documents filed by the Registrant with the Commission are incorporated herein by reference (excluding any portions of such documents that have been "furnished" but not "filed" for purposes of the Securities Exchange Act of 1934, as amended (the "Exchange Act")):

(a) The Registrant's Annual Report on Form 10-K for the year ended December 31, 2014 filed with the Commission on March 16, 2015; and

(b) All reports filed by the Registrant pursuant to Section 13(a) or 15(d) of the Exchange Act, subsequent to the end of the fiscal year covered by the form referred to in (a) above; and

(c) The description of our common stock contained in our registration statement on Form 10/A filed with the SEC on July 16, 2001 (File No. 000-32501).

In addition, all documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment to this registration statement which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be a part hereof from the date of the filing of such documents.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this registration statement to the extent that a statement contained herein, (or in any other subsequently filed document which also is incorporated or deemed to be incorporated by reference herein), modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this registration statement.

Under no circumstances will any information filed under current items 2.02 or 7.01 of Form 8-K be deemed incorporated herein by reference unless such Form 8-K expressly provides to the contrary.

You may request a copy of these filings, at no cost, by writing or telephoning the Registrant at:

3020 Callan Road
San Diego, California 92121
Telephone: 858-458-0900
Attn: Investor Relations

You should rely only on the information provided or incorporated by reference in this registration statement or any related prospectus. The Registrant has not authorized anyone to provide you with different information. You should not assume that the information in this registration statement or any related prospectus is accurate as of any date other than the date on the front of the document.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

Section 145 of the DGCL authorizes a court to award or a corporation's board of directors to grant indemnification to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities (including reimbursement for expenses incurred) arising under the Securities Act of 1933, as amended, or the Securities Act.

Our amended and restated certificate of incorporation, as amended (our "Certificate"), includes a provision that, to the fullest extent permitted by the Delaware General Corporation Law, eliminates the personal liability of our directors for monetary damages for breach of fiduciary duty as a director. In addition, together our Certificate and our amended and restated bylaws, as amended (our "Bylaws"), require us to indemnify, to the fullest extent permitted by law, any person made or threatened to be made a party to an action or proceeding (whether criminal, civil, administrative or investigative) by reason of the fact that such person is or was a director, officer or employee of Cytori or any predecessor of ours, or serves or served at any other enterprise as a director, officer or employee at our request or the request of any predecessor of ours, against expenses (including attorneys' fees), judgments, fines, settlements and other amounts actually and reasonably incurred in connection with any proceeding, arising by reason of the fact that such person is or was an agent of ours. Our Bylaws also provide that we may, to the fullest extent provided by law, indemnify any person against expenses (including attorneys' fees), judgments, fines, settlements and other amounts actually and reasonably incurred in connection with any proceeding, arising by reason of the fact that such person is or was an agent of ours. We are required to advance expenses incurred by our directors, officers, employees and agents in defending any action or proceeding for which indemnification is required or permitted, subject to certain limited exceptions. The indemnification rights conferred by our Bylaws are not exclusive.

We have obtained directors and officers liability insurance.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

For a list of exhibits, see the Exhibit Index in this registration statement, which is incorporated into this Item 8 by reference.

Item 9. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of this registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this registration statement. Notwithstanding the foregoing, any increase or decrease in the volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of a prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (i) and (ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of any employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in San Diego, California, on this 18th day of March, 2015.

CYTORI THERAPEUTICS, INC.

By: /s/ Marc H. Hedrick, M.D.

Marc H. Hedrick, M.D.

President and Chief Executive Officer
(Duly Authorized Officer)

POWER OF ATTORNEY AND SIGNATURES

Each director and/or officer of Cytori Therapeutics, Inc. whose signature appears below constitutes and appoints Marc H. Hedrick, M.D. and Tiago Girão, and each of them, as such person's true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for such person and in such person's name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Commission granting unto each said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming that each said attorney-in-fact and agent or his substitute or substitutes, may lawfully do or cause to be done by virtue of this Power of Attorney.

Pursuant to the requirements of the Securities Act, this registration statement has been signed by the following persons in the capacities and on the date indicated:

Signature	Title	Date
<u>/s/ Marc H. Hedrick, M.D.</u> Marc H. Hedrick, M.D.	President, Chief Executive Officer, and Director (Principal Executive Officer)	March 18, 2015
<u>/s/ Tiago Girão</u> Tiago Girão	Chief Financial Officer (Principal Financial and Accounting officer)	March 18, 2015
<u>/s/ David M. Rickey</u> David M. Rickey	Chairman of the Board	March 18, 2015
<u>/s/ Richard J. Hawkins</u> Richard J. Hawkins	Director	March 18, 2015
<u>/s/ Paul W. Hawran</u> Paul W. Hawran	Director	March 18, 2015
<u>/s/ Gail K. Naughton, Ph.D.</u> Gail K. Naughton, Ph.D.	Director	March 18, 2015
<u>/s/ Gary A. Lyons</u> Gary A. Lyons	Director	March 18, 2015
<u>/s/ Tommy G. Thompson</u> Tommy G. Thompson	Director	March 18, 2015

EXHIBIT INDEX

Exhibit No.	Description
4.1(1)	Composite Certificate of Incorporation.
4.2(2)	Amended and Restated Bylaws.
4.3(3)	Amendment to Amended and Restated Bylaws
5.1	Opinion of DLA Piper LLP (US).
23.1	Consent of KPMG LLP, Independent Registered Public Accounting Firm.
23.2	Consent of DLA Piper LLP (US) (filed as a part of Exhibit 5.1).
24.1	Power of Attorney (contained on signature page).
99.1(4)	Cytori Therapeutics, Inc. 2014 Equity Incentive Plan.

- (1) Incorporated by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form S-3 (File No. 333-192409) filed on November 19, 2013.
- (2) Incorporated by reference to Exhibit 3.2 to the Registrant's Quarterly Report on Form 10-Q (File No. 000-32501) filed on August 14, 2003.
- (3) Incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K (File No. 001-34375) filed on May 6, 2014.
- (4) Incorporated by reference to Appendix A to the Registrant's definitive proxy statement on Schedule 14A (File No. 001-34375), filed on June 12, 2014.

DLA Piper LLP (US)
4365 Executive Drive, Suite 1100
San Diego, California 92121-2133
T: (858) 677-1400
F: (858) 677-1401
www.dlapiper.com

March 17, 2015

Cytori Therapeutics, Inc.
3020 Callan Road
San Diego, California 92121

Ladies and Gentlemen:

We have acted as legal counsel for Cytori Therapeutics, Inc., a Delaware corporation (the “**Company**”), in connection with a Registration Statement on Form S-8 (the “**Registration Statement**”) under the Securities Act of 1933, as amended (the “**Securities Act**”), with respect to the issuance from time to time of up to 3,975,000 shares of the Company’s Common Stock, par value \$0.001 per share (the “**Common Stock**”), pursuant to awards granted or to be granted under the Company’s 2014 Equity Incentive Plan (the “**Plan**”). The 3,975,000 shares of Common Stock issuable under the Plan are hereinafter referred to as the “**Shares**.”

In connection herewith, we have examined and relied without independent investigation as to matters of fact upon such certificates of public officials, such statements and certificates of officers of the Company and originals or copies certified to our satisfaction of the Registration Statement, the Amended and Restated Certificate of Incorporation of the Company, as amended, and the Amended and Restated Bylaws of the Company, as amended, each as currently in effect and minutes of all pertinent meetings and actions of the Board of Directors of the Company.

In rendering this opinion, we have assumed the genuineness of all signatures on all documents examined by us, the due authority of the persons signing such documents (other than with respect to persons signing documents on behalf the Company), the authenticity of all documents submitted to us as originals, the conformity to the originals of all documents submitted to us as copies and that the offer and sale of the Shares complies in all respects with the terms, conditions and restrictions set forth in the Plan. The Company has represented to us and we have also assumed that the Company has reserved from its duly authorized capital stock a sufficient number of shares of common stock for issuance under the Plan. We have also assumed that it will at all times reserve and keep available out of the aggregate of its authorized but unissued and otherwise unreserved common stock, solely for the purpose of enabling it to issue the Shares in accordance with the Plan, as applicable, the number of Shares which are then issuable and deliverable upon the settlement of awards under the Plan.

We do not express any opinion herein concerning any law other than the laws of the State of California, the Delaware General Corporation Law and the federal laws of the United States. No opinion is expressed herein with respect to the qualification of the Shares under the securities or blue sky laws of any state or any foreign jurisdiction.

This opinion speaks only at and as of its date and is based solely on the facts and circumstances known to us and as of such date. In addition, in rendering this opinion, we assume no obligation to revise, update or supplement this opinion (i) should the present aforementioned laws be changed by legislative action, judicial decision or otherwise, or (ii) to reflect any facts or circumstances which may hereafter come to our attention.

Based upon, subject to and limited by the foregoing, we are of the opinion that the Shares have been duly authorized by the Company, and when the Shares are issued and fully paid for in accordance with the terms of the Plan, such Shares will be validly issued, fully paid and nonassessable.

We hereby consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement. In giving this consent, we do not admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

Very truly yours,

/s/ DLA PIPER LLP (US)
DLA PIPER LLP (US)

JTB

Consent of Independent Registered Public Accounting Firm

The Board of Directors

Cytori Therapeutics, Inc.:

We consent to the use of our reports with respect to the consolidated financial statements, the accompanying schedule of valuation and qualifying accounts and the effectiveness of internal control over financial reporting incorporated by reference herein.

Our report dated March 16, 2015 contains an explanatory paragraph that states that the Company's recurring losses from operations, liquidity position, and debt service requirements raises substantial doubt about its ability to continue as a going concern. The consolidated financial statements and financial statement schedule do not include any adjustments that might result from the outcome of that uncertainty.

/s/ KPMG LLP

San Diego, California

March 16, 2015