UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM S-1

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

CYTORI THERAPEUTICS, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware 3841 33-0827593

(State or Other Jurisdiction of Incorporation or Organization)

(Primary Standard Industrial Classification Code Number) (I.R.S. Employer Identification Number)

3020 Callan Road San Diego, CA 92121 (858) 458-0900

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

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

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

Copies to:

Cheston J. Larson, Esq. Latham & Watkins LLP 12670 High Bluff Dr. San Diego, CA 92130 Tel: (858) 523-5400 Fax: (858) 523-5450 Barry I. Grossman, Esq. Sarah E. Williams, Esq. Ellenoff Grossman & Schole LLP 1345 Avenue of the Americas New York, New York 10105 (212) 370-1300

Approximate date of commencement of proposed sale to the public: As soon as practicable after this registration statement becomes effective.

If any of the committee being a grintened on this Form on to be offered on a delegation on the committee of the committee of

II any o	or the securities being regist	erea on this Form are to be of	rerea on a delayed or contin	luous basis pursuant to Rule 4	115 under the Securities Act
of 1933, check	k the following box. \square				

If this Form is filed to register additional securities for an offering pursuant to Rule 46 he Securities Act registration statement number of the earlier effective registration statement	. ,				
If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Sec egistration statement number of the earlier effective registration statement for the same offer	S S S S S S S S S S S S S S S S S S S				
If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Sec egistration statement number of the earlier effective registration statement for the same offer	•				
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 \square	Accelerated filer \square				
Non-accelerated filer □ Do not check if a smaller reporting company)	Smaller reporting company \boxtimes				
r	Emerging growth company \square				

CALCULATION OF REGISTRATION FEE

or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of Securities Act. \Box

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for comply with any new

Title of each class of securities to be registered	Proposed Maximum Aggregate Offering Price (1)	Amount of registration fee
Units consisting of shares of Series C Preferred Stock, par value \$0.001 per share, and	\$25,000,000	\$3,113
warrants to purchase shares of Common Stock, par value \$0.001 per share		
Non-transferable Rights to purchase Units (2)	_	_
Series C Preferred Stock included as part of the Units	Included with	_
	Units above	
Warrants to purchase shares of Common Stock included as part of the Units (3)	Included with	_
	Units above	
Common Stock issuable upon conversion of the Series C Preferred Stock (4)(5)	_	_
Common Stock issuable upon exercise of the Warrants (5)	\$18,900,000	\$2,353
Total	\$43,900,000 (6)	\$5,466 (7)

- (1) Estimated solely for purposes of calculating the registration fee in accordance with Rule 457(o) under the Securities Act of 1933, as amended (the "Act").
- (2) Non-transferable Rights to purchase Units are being issued without consideration. Pursuant to Rule 457(g) under the Act, no separate registration fee is required for the Rights because the Rights are being registered in the same registration statement as the securities of the Registrant underlying the Rights.
- (3) Pursuant to Rule 457(g) of the Act, no separate registration fee is required for the Warrants because the Warrants are being registered in the same registration statement as the Common Stock of the Registrant issuable upon exercise of the Warrants.

- (4) Pursuant to Rule 457(i) of the Act, no separate registration fee is required for the Common Stock issuable upon conversion of the Series C Preferred Stock because no additional consideration will be received in connection with the exercise of the conversion privilege.
- (5) In addition to the shares of Common Stock set forth in this table, pursuant to Rule 416 under the Act, this registration statement also registers such indeterminate number of shares of Common Stock as may become issuable upon exercise of these securities as the same may be adjusted as a result of stock splits, stock dividends, recapitalizations or other similar transactions.
- (6) The Registrant previously registered securities having a proposed maximum aggregate offering price of \$40,850,000 on its Registration Statement on Form S-1, as amended (File No. 333-224502), which was declared effective by the Securities and Exchange Commission on July 12, 2018. In accordance with Rule 462(b) under the Securities Act, additional shares of Common Stock issuable upon exercise of Warrants having a proposed maximum aggregate offering price of \$3,050,000 are hereby registered.
- (7) Of this amount, \$5,086 was previously paid.

This Registration Statement shall become effective upon filing in accordance with Rule 462(b) under the Securities Act.

EXPLANATORY NOTE AND INCORPORATION BY REFERENCE

This Registration Statement is being filed with respect to the registration of additional securities of Cytori Therapeutics, Inc. (the "Registrant"), pursuant to Rule 462(b) under the Securities Act of 1933, as amended. The contents of the Registration Statement on Form S-1, as amended (File No. 333-224502), which was declared effective on July 12, 2018 (the "Prior Registration Statement"), including exhibits and power of attorney thereto, are hereby incorporated by reference in this Registration Statement. The Registrant is filing this Registration Statement for purposes of registering additional securities of the same classes as were included in the Prior Registration Statement, representing an increase in the maximum aggregate offering price of \$3,050,000.

EXHIBIT INDEX

Exhibit No.	Description of Exhibit
5.1(1)	Opinion of Latham & Watkins LLP
8.1(2)	Tax Opinion of Latham & Watkins LLP
23.1	Consent of BDO USA, LLP, Independent Registered Public Accounting Firm
23.2(3)	Consent of Latham & Watkins LLP
24.1(4)	Power of Attorney
(1) Previou	sly filed as Exhibit 5.1 to the Prior Registration Statement and incorporated by reference herein

- (1) Previously filed as Exhibit 5.1 to the Prior Registration Statement and incorporated by reference herein.
- (2) Previously filed as Exhibit 8.1 to the Prior Registration Statement and incorporated by reference herein.
- (3) Previously filed (included in Exhibit 5.1) with the Prior Registration Statement and incorporated by reference herein.
- (4) Previously filed on the signature page to the Prior Registration Statement and incorporated by reference herein.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Diego, State of California, on July 17, 2018.

CYTORI THERAPEUTICS, INC.

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

Marc H. Hedrick, M.D.

President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

SIGNATURE	TITLE	DATE
* Richard J. Hawkins	Chairman of the Board	July 17, 2018
/s/ Marc H. Hedrick, M.D. Marc H. Hedrick, M.D.	President & Chief Executive Officer (Principal Executive Officer)	July 17, 2018
/s/ Tiago Girão Tiago Girão	VP of Finance and Chief Financial Officer (Principal Financial and Accounting Officer)	July 17, 2018
* Gregg A. Lapointe	Director	July 17, 2018
* Gary A. Lyons	Director	July 17, 2018
* Ronald A. Martell	Director	July 17, 2018
*By: /s/ Tiago Girão Tiago Girão Attorney-in-fact		

Consent of Independent Registered Public Accounting Firm

Cytori Therapeutics, Inc. San Diego, California

We hereby consent to the incorporation by reference in this Registration Statement on Form S-1 MEF filed pursuant to Rule 462(b) under the Securities Act of 1933 of our report dated March 9, 2018, relating to the consolidated financial statements and schedule of Cytori Therapeutics, Inc. ("Company"), which is incorporated by reference in that Registration Statement. Our report contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

/s/BDO USA, LLP San Diego, California

July 17, 2018