

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 (State or Other Jurisdiction of Incorporation or Organization) **3841** (Primary Standard Industrial Classification Code Number) **33-0827593** (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
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3020 Callan Road
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(858) 458-0900

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

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

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, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) 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 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 post-effective amendment filed pursuant to Rule 462(d) 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.

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,” and “emerging growth company in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Proposed Maximum Aggregate Offering Price (1) (2)	Amount of registration fee
Class A Units consisting of:		
(i) Shares of common stock, par value \$0.001 per share		
(ii) Warrants to purchase common stock (3)	—	—
Class B Units consisting of:		
(i) Shares of Series D preferred stock, par value \$0.001 per share		
(ii) Shares of common stock issuable on conversion of Series D preferred stock (4)(5)	—	—
(iii) Warrants to purchase common stock (3)	—	—
Common stock issuable upon exercise of warrants (5)		
Total	\$10,000,000	\$1,212

- (1) Estimated solely for the purpose of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended (the “Securities Act”).
- (2) Includes the price of additional shares of common stock and warrants to purchase shares of common stock that the underwriter has the option to purchase to cover overallocments, if any.
- (3) Pursuant to Rule 457(g) of the Securities 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 Securities Act, no separate registration fee is required for the common stock issuable upon conversion of the Series D 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 Securities 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.

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 of 1933, as amended or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.



(and
Class A Units consisting of common stock and warrants and
Class B Units consisting of shares of Series D preferred stock and warrants
shares of common stock underlying shares of Series D preferred stock and warrants)

Cytori Therapeutics, Inc. is offering Class A Units, with each Class A Unit consisting of one share of common stock, par value \$0.001 per share, and a Series U Warrant (“Warrant”) to purchase one half of one share of our common stock (together with the shares of common stock underlying such Warrants, the “Class A Units”) at a public offering price of \$ per Class A Unit. Each Warrant included in the Class A Units entitles its holder to purchase one half of one share of common stock at an exercise price per share of \$.

We are also offering to those purchasers whose purchase of Class A Units in this offering would result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock following the consummation of this offering, the opportunity to purchase, if they so choose, in lieu of the number of Class A Units that would result in ownership in excess of 4.99% (or, at the election of the purchaser, 9.99%), Class B Units. Each Class B Unit consists of one share of Series D preferred stock, par value \$0.001 per share (the “Series D Preferred Stock”), convertible into shares of common stock and Warrants to purchase shares of our common stock (together with the shares of common stock underlying such shares of Series D Preferred Stock and such Warrants, the “Class B Units” and, together with the Class A Units, the “units”) at a public offering price of \$ per Class B Unit (the offering of the units to the public, the “Offering”). Each Warrant included in the Class B Units entitles its holder to purchase one half of one share of common stock at an exercise price per share of \$.

The Class A Units and Class B Units have no stand-alone rights and will not be certificated or issued as stand-alone securities. The shares of common stock, Series D Preferred Stock and Warrants comprising such units are immediately separable and will be issued separately in this Offering. The Warrants offered hereby may be exercised from time to time beginning on and expire on . The underwriter has the option to purchase up to additional shares of common stock and/or Warrants to purchase up to shares of common stock solely to cover overallocments, if any, at the price to the public less the underwriting discounts and commissions. The overallocation option may be used to purchase shares of common stock, or Warrants, or any combination thereof, as determined by the underwriter, but such purchases cannot exceed an aggregate of % of the number of shares of common stock (including the number of shares of common stock issuable upon conversion of shares of Series D Preferred Stock) and Warrants sold in the primary offering. The overallocation option is exercisable for days from the date of this prospectus.

Investing in our securities involves a high degree of risk. See the section entitled “Risk Factors” beginning on page 6 of this prospectus. You should carefully consider these risk factors, as well as the information contained in this prospectus, before you invest.

Our common stock is listed on the Nasdaq Capital Market, under the symbol “CYTX.” On January 31, 2019, the last reported sale price of our common stock was \$0.3353 per share. There is no established public trading

market for the Series D Preferred Stock or the Warrants. We do not intend to apply for listing of the Series D Preferred Stock or the Warrants on any securities exchange or recognized trading system.

	Per Class A Unit	Per Class B Unit	Total
Public Offering Price ⁽¹⁾	\$	\$	\$
Underwriting discount ^{(2) (3)}	\$	\$	\$
Proceeds to us, before expenses	\$	\$	\$

- (1) The public offering price and underwriting discount corresponds to (x) in respect of the Class A Units (i) a public offering price per share of common stock of \$ and (ii) a public offering price per Warrant of \$ and (y) in respect of the Class B Units (i) a public offering price per share of Series D Preferred Stock of \$ and (ii) a public offering price per Warrant of \$ per whole share of common stock.
- (2) We have also agreed to reimburse the underwriter for certain expenses. See "Underwriting."
- (3) We have granted a -day option to the underwriter to purchase up to additional shares of common stock and/or Warrants to purchase up to shares of common stock (up to % of the number of shares of common stock (including the number of shares of common stock issuable upon conversion of shares of Series D Preferred Stock) and Warrants sold in the primary offering) solely to cover overallocments, if any.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The underwriter expects to deliver the securities to purchasers in the Offering on or about , 2019.

Book-Running Manager

The date of this prospectus is , 2019

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ABOUT THIS PROSPECTUS

The registration statement of which this prospectus forms a part that we have filed with the Securities and Exchange Commission, or SEC, includes exhibits that provide more detail of the matters discussed in this prospectus. You should read this prospectus and the related exhibits filed with the SEC, together with the additional information described under the headings “Where You Can Find More Information” and “Incorporation by Reference” before making your investment decision.

You should rely only on the information contained in this prospectus or contained in any free writing prospectus prepared by or on behalf of us. We have not authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in a prospectus supplement or in any free writing prospectuses prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. You should assume that the information contained in this prospectus is accurate only as of its date regardless of the time of delivery of this prospectus or of any sale of securities. Our business, financial condition results of operations and prospects may have changed since the date of this prospectus.

We are not offering to sell or seeking offers to purchase these securities in any jurisdiction where the offer or sale is not permitted. We have not done anything that would permit this Offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus and any free writing prospectus related to this Offering in jurisdictions outside the United States are required to inform themselves about and to observe any restrictions relating to this Offering and the distribution of this prospectus and any such free writing prospectus applicable to that jurisdiction.

Unless the context otherwise requires, references in this prospectus to “Cytori,” “the Company,” “we,” “us” and “our” refer to Cytori Therapeutics, Inc. and our subsidiaries. Solely for convenience, trademarks and tradenames referred to in this prospectus may appear without the ® or ™ symbols, but such references are not intended to indicate in any way that we will not assert, to the fullest extent under applicable law, our rights, or that the applicable owner will not assert its rights, to these trademarks and tradenames.

Unless the context otherwise requires, references in this prospectus to shares of our common stock, including prices per share of our common stock, reflect the one-for-ten reverse stock split that was approved by our stockholders and board of directors on May 18, 2018. Our common stock commenced trading on a split-adjusted basis on May 24, 2018.

PROSPECTUS SUMMARY

This summary contains basic information about us and this Offering. Because it is a summary, it does not contain all of the information that you should consider before investing. Before you decide to invest in our units, you should read this entire prospectus carefully, including the section entitled “Risk Factors” and any information incorporated by reference herein.

Our Business

Our objective is to build a profitable and growing specialty therapeutics company. To meet this objective, we have acquired and are developing two technology platforms that hold promise for treating millions of patients and represent significant potential for increasing shareholder value. Our current corporate activities fall substantially into advancing these platforms: Cytori Nanomedicine and Cytori Cell Therapy.

The Cytori Nanomedicine platform features a versatile nanoparticle technology for drug encapsulation and delivery that has thus far provided the foundation to bring two drugs into mid/late stage clinical trials. Nanoparticle encapsulation is a clinically proven technology and has been shown to help improve the pharmacokinetic properties of many drugs, thus potentially enhancing the therapeutic profile and patient benefits. Our lead oncology drug candidate, ATI-0918 is a generic version of Janssen’s Caelyx® pegylated liposomal encapsulated doxorubicin for the treatment of breast and ovarian cancer, multiple myeloma, and Kaposi’s sarcoma. Pegylated liposomal encapsulated doxorubicin is a heavily relied upon chemotherapeutic used in many cancer types on a global basis. We believe that data from a 60-patient European study of ATI-0918 has met the statistical criteria for bioequivalence to Janssen’s Caelyx®, the current reference listed drug in Europe. We intend that these bioequivalence data will serve as a basis for our planned regulatory submission to the European Medicines Agency, or EMA, for ATI-0918. We are currently evaluating our strategic options to bring ATI-0918 to the U.S., China, and other markets. Our second oncology drug candidate is ATI-1123, which is a patented, albumin-stabilized liposomal encapsulated docetaxel. Docetaxel is a well-accepted and often used chemotherapeutic drug used for many cancers. A Phase I clinical trial of ATI-1123 has been completed and published, and we are investigating possible expansion of this trial to Phase II, potentially in conjunction with a development partner. We recently received FDA orphan drug designation for ATI-1123 for the treatment of small cell lung cancer. Finally, in connection with our acquisition of the ATI-0918 and ATI-1123 drug candidates, we have acquired know-how (including proprietary processes and techniques) and a scalable nanoparticle manufacturing plant in San Antonio, Texas from which we intend to manufacture commercial quantities of our nanoparticle-encapsulated and -delivered drugs.

Cytori Cell Therapy, or CCT, is based on the scientific discovery that the human adipose or fat tissue compartment is a source of a unique mixed population of stem, progenitor and regenerative cells that may hold substantial promise in the treatment of numerous diseases and conditions. To bring this promise to health care providers and patients, we have developed certain novel therapies prepared and administered at the patient’s bedside with proprietary technologies that include therapy-specific reusable, automated, standardized Celution devices, single-use Celution consumable sets, Celase reagent, and Intravase reagent. Our CCT lead product candidate, Habeo Cell Therapy, was evaluated in a Cytori-sponsored U.S. randomized, placebo-controlled, double-blind, multi-center clinical trial, STAR (Scleroderma Treatment with Celution Processed Adipose Derived Regenerative Cells), for the treatment of impaired hand function in patients with scleroderma. The STAR trial enrolled and evaluated 88 patients with scleroderma, including 51 patients within the diffuse cutaneous subset and 37 with limited cutaneous scleroderma. On July 24, 2017, we announced top-line, preliminary data and presented the full data analysis on October 18, 2017. Feedback from a FDA pre-submission meeting, indicated that a clinical trial focused on more severely affected diffuse systemic sclerosis patients could be an appropriate next step given the results of the STAR clinical trial. FDA meeting minutes following the STAR trial are finalized but as of today, we are not prepared to commit, the financial and other resources required to conduct an additional clinical trial of Habeo. We will instead look to partnering or out-licensing opportunities as the primary basis for continued development. In addition, on January 22, 2018, we announced the investigator-initiated and Cytori-supported SCLERADEC-II clinical trial in France using Habeo Cell Therapy completed its enrollment and six month data is anticipated in the first half of 2019. Additional CCT treatments are in various stages of development in the areas of urology, wounds, and orthopedics. Furthermore, our CCT platform is the subject of investigator-initiated trials conducted by our partners, licensees and other third parties, some of which are supported by us and/or funded by government agencies and other funding sources. In March 2018, we announced a Japanese investigator-initiated study of ECCI-50 Cell

Therapy in men with stress urinary incontinence, or SUI, following prostatic surgery for prostate cancer or benign prostatic hypertrophy, called ADRESU, completed enrollment of 45 patients. Patients will be followed up for one-year post treatment and data from the ADRESU trial is expected in 2019. In October 2018, Cytori submitted an application to the Evaluation and Licensing Division of the Japan Pharmaceuticals and Medical Devices Agency, or PMDA, through the SAKIGAKE designation system to potentially obtain a prioritized and shortened review, six months instead of 12 months, of the future ECCI-50 registration application. Cytori expects to obtain the result of the designation decision in Q1 2019. The ADRESU trial costs are substantially supported by the Japan Agency for Medical Research and Development, an independent administrative agency of the Government of Japan, with additional support from Cytori. We entered into an amendment to our agreement with the U.S. Department of Health and Human Service's Biomedical Advanced Research and Development Authority, BARDA, in May 2017 for the initiation of the RELIEF pilot clinical trial of DCCT-10 in thermal burn injury. The amendment extends the term of the BARDA Agreement and the period of performance of Option 2 of the BARDA Agreement to November 30, 2020. We have initiated the clinical trial and expect to first treat patients in the RELIEF trial in 2019. Currently, we internally manufacture Celution devices, outsource Celution consumables in the United States and source our Celase and Intravase reagents from a third-party supplier. We have contracted with a third-party manufacturer for the production of the Celution consumables to improve scalability, reduce overhead and product costs of goods sold. We also have obtained regulatory approval to sell some of our CCT products, including our Celution devices and consumables and associated reagents, in certain markets outside the U.S. More specifically, in Japan, in Q4 2018 we received PMDA Class III approval the Celution consumable and enzyme. Further, for countries recognizing a CE Mark, the Celution System CE Certificate has been updated per the direction of our notified body, British Standards Institute. In those markets, we have been able to further develop and improve our core technologies, gain expanded clinical and product experience and data, and generate sales.

Recent Developments

Reverse Stock Split

In May 2018, our stockholders, approved a reverse stock split of our shares of common stock at a ratio of between one-for-five and one-for-fifteen, with the exact ratio to be chosen within that range at the discretion of our board of directors. On May 23, 2018, we effected a one-for-ten reverse stock split of our shares of common stock, or the 2018 Reverse Stock Split, at the direction of our board of directors and began trading on a post-split basis on May 24, 2018. As a result of the 2018 Reverse Stock Split, every ten (10) shares of our common stock outstanding was automatically changed and reclassified into one (1) new share of common stock. Stockholders of fractional shares of common stock otherwise issuable pursuant to the 2018 Reverse Stock Split were rounded up. The 2018 Reverse Stock Split did not change the par value of our stock or the number of common shares or preferred shares authorized by our certificate of incorporation. All share and per share amounts in this prospectus have been retroactively adjusted to reflect the 2018 Reverse Stock Split for all periods presented. As of December 31, 2018, we had 14,830,414 shares of common stock outstanding, as adjusted by the 2018 Reverse Stock Split. The financial statements in our Quarterly Report on Form 10-Q for the quarters ended June 30, 2018 and September 30, 2018, filed on August 14, 2018 and November 14, 2018, respectively, incorporated by reference herein have been adjusted to reflect the 2018 Reverse Stock Split.

Nasdaq Compliance

On August 28, 2018, we received a written notice from The Nasdaq Stock Market LLC, or Nasdaq, indicating that, based upon the closing bid price of our common stock for the last 30 consecutive business days, we no longer meet the requirement to maintain a minimum bid price of \$1.00 per share, as set forth in Nasdaq Listing Rule 5550(a)(2). In accordance with Nasdaq Listing Rule 5810(c)(3)(A), we have been provided a period of 180 calendar days, or until February 25, 2019, in which to regain compliance. In order to regain compliance with the minimum bid price requirement, the closing bid price of our common stock must have been at least \$1.00 per share for a minimum of ten consecutive business days during the 180-day period. In the event we do not regain compliance within this 180-day period, we may be eligible to seek an additional compliance period of 180 calendar days if we meet the continued listing requirement for market value of publicly held shares and all other initial listing standards for the Nasdaq Capital Market, with the exception of the bid price requirement, if we provide written notice to Nasdaq of our intent to cure the deficiency during this second compliance period, by effecting a reverse stock split, if necessary.

The Offering

Class A Units offered by us	We are offering Class A Units. Each Class A Unit consists of one share of common stock and a Warrant to purchase one half of one share of our common stock (together with the shares of common stock underlying such Warrants).
Offering price per Class A Unit	\$
Class B Units offered by us	We are also offering to those purchasers whose purchase of Class A Units in this Offering would result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock following the consummation of this Offering, the opportunity to purchase, in lieu of the number of Class A Units that would result in ownership in excess of 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock, Class B Units. Each Class B Unit consists of one share of Series D Preferred Stock, par value \$0.001 per share, convertible into a number of shares of common stock equal to and Warrants to purchase shares of our common stock (together with the shares of our common stock underlying such shares of Series D Preferred Stock and Warrants).
Offering price per Class B Unit	\$
Overallotment option	The underwriter has the option to purchase up to additional shares of common stock, and/or Warrants to purchase up to shares of common stock solely to cover overallotments, if any, at the price to the public less the underwriting discounts and commissions. The overallotment option may be used to purchase shares of common stock, or Warrants, or any combination thereof, as determined by the underwriter, but such purchases cannot exceed an aggregate of % of the number of shares of common stock (including the number of shares of common stock issuable upon conversion of shares of Series D Preferred Stock) and Warrants sold in the primary offering. The overallotment option is exercisable for days from the date of this prospectus.
Description of Series Warrants	The Warrants will be exercisable beginning on the date of issuance and expire on the three (3) year anniversary of the date of issuance at an initial exercise price per share equal to \$, subject to appropriate adjustment in the event of recapitalization events, stock dividends, stock splits, stock combinations, reclassifications, reorganizations or similar events affecting our common stock.
Description of Series D Preferred Stock	Each share of Series D Preferred Stock is convertible at any time at the holder's option into shares of common stock. Notwithstanding the foregoing, we shall not effect any conversion of Series D Preferred Stock, with certain exceptions, to the extent that, after giving effect to an attempted conversion, the holder of shares of Series D Preferred Stock (together with such holder's affiliates, and any persons acting as a group together with such holder or any of such holder's affiliates) would beneficially own a number of shares of our common stock in excess of 4.99% (or, at the election of the purchaser prior to the date of issuance, 9.99%) of the shares of our common stock then outstanding after giving effect to such exercise. For additional information, see the section entitled "Description of Securities—Preferred Stock."
Shares of common stock outstanding before the Offering	shares.

Shares of common stock outstanding after the Offering	shares.
Shares of Series D Preferred Stock outstanding after the Offering	shares.
Use of Proceeds	We estimate that the net proceeds to us from this Offering will be approximately \$ million, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We intend to use net proceeds from this Offering for working capital, payment of interest on our debt and general corporate purposes, which may include research and development of our oncology product pipeline, preclinical and clinical trials and studies, regulatory submissions, expansion of our sales and marketing organizations and efforts, intellectual property protection and enforcement and capital expenditures. We may use a portion of the net proceeds to acquire complementary products, technologies or businesses or to repay principal on our debt; however, we currently have no agreements or commitments to complete any such transactions or to make any such principal repayments and are not involved in negotiations to do so. See the section entitled “Use of Proceeds” on page 13 of this prospectus.
Risk factors	This investment involves a high degree of risk. You should carefully read and consider the information set forth under “Risk Factors” on page 6 of this prospectus and the documents incorporated by reference herein before deciding to invest in our securities.
Nasdaq Capital Market common stock symbol	CYTX
No listing of Series D Preferred Stock or Warrants	There is no established public trading market for the Series D Preferred Stock or the Warrants, and we do not intend to apply for listing of the shares of the Series D Preferred Stock or Warrants on any securities exchange or trading system. Without an active trading market, the liquidity of the Warrants and the Series D Preferred Stock will be limited.
Issuance of Series D Preferred Stock	The shares of Series D Preferred Stock that are purchased in the Offering as part of the units will be issued in book-entry, or uncertificated, form meaning that you will receive a direct registration account statement from our transfer agent reflecting ownership of these securities if you are a holder of record of shares. If you hold your shares of common stock or Series D Preferred Stock in the name of a bank, broker, dealer, or other nominee, the Depository Trust Company, or DTC, will credit your account with your nominee with the securities you purchased in the Offering.
Issuance of Warrants	The Warrants that are purchased in the Offering as part of the units will be issued pursuant to a separate warrant agreement to be entered into between purchasers and the Company.

The number of shares of common stock that will be outstanding after this Offering is based on 11,691,293 shares outstanding as of September 30, 2018 and excludes:

- 172,234 shares of common stock issuable upon the exercise of stock options outstanding as of September 30, 2018 with a weighted average exercise price of \$65.09 per share;
- 51 shares of common stock issuable upon the vesting of outstanding restricted stock awards as of September 30, 2018;

- 883,444 shares of common stock available for future grants under our 2014 Equity Incentive Plan as of September 30, 2018;
- 30,450 shares of common stock available for future grants under our 2015 New Employee Incentive Plan as of September 30, 2018;
- 334,233 shares of common stock issuable upon the conversion of outstanding shares of Series B Preferred Stock as of September 30, 2018;
- 4,395,192 shares of common stock issuable upon the conversion of outstanding shares of Series C Preferred Stock as of September 30, 2018;
- 9,224,219 shares of our common stock issuable upon the exercise of outstanding warrants as of September 30, 2018 with a weighted-average exercise price of \$2.83 per share;
- _____ shares of our common stock issued between October 1, 2018 and _____, 2019 pursuant to our at-the-market sales agreement;
- _____ shares of our common stock issued between October 1, 2018 and _____, 2019 pursuant to Lincoln Park Capital Sales agreement; and
- the shares of our common stock issuable upon the exercise of the Warrants or upon the conversion of the Series D Preferred Stock, each offered hereby.

RISK FACTORS

Investing in our securities involves a high degree of risk. Before making an investment decision with respect to our securities, we urge you to carefully consider the risks described in the “Risk Factors” section of our Annual Report on Form 10-K for the year ended December 31, 2017 and our subsequent Quarterly Reports on Form 10-Q, which are incorporated by reference into this prospectus. These risk factors relate to our business, intellectual property, regulatory matters, and ownership of our common stock. In addition, the following risk factors present material risks and uncertainties associated with the Offering. The risks and uncertainties incorporated by reference into this prospectus or described below are not the only ones we face. Additional risks and uncertainties not presently known or which we consider immaterial as of the date hereof may also have an adverse effect on our business. If any of the matters discussed in the following risk factors were to occur, our business, financial condition, results of operations, cash flows or prospects could be materially adversely affected, the market price of our securities could decline and you could lose all or part of your investment in our securities.

Risks Related to the Offering

There is currently a limited market for our securities, and any trading market that exists in our securities may be highly illiquid and may not reflect the underlying value of our net assets or business prospects.

Although our common stock is traded on Nasdaq, there is currently a limited market for our common stock and an active market may never develop. Investors are cautioned not to rely on the possibility that an active trading market may develop.

We could be delisted from Nasdaq, which could seriously harm the liquidity of our stock and our ability to raise capital.

Following notice from Nasdaq staff in June 2015 and December 2015, we had a hearing in January 2016 relating to our noncompliance with the \$1.00 minimum bid price per share requirement. The Nasdaq Hearing Panel granted us until May 31, 2016 to come into compliance with the minimum bid price requirement, including requirements relating to obtaining stockholders approval of a reverse stock split that would bring our stock price above \$1.00 per share for a minimum of 10 consecutive trading days. We transferred the listing of our common stock from the Nasdaq Global Market to the Nasdaq Capital Market in February 2016. In May 2016, we consummated a 1-for-15 reverse stock split pursuant to which the minimum bid price per share of our common stock rose above \$1.00. Pursuant to a letter dated May 26, 2016, the Nasdaq staff delivered notice to us that we had regained compliance with Nasdaq’s minimum bid price rule.

On September 5, 2017, we received a written notice from Nasdaq staff indicating that, based upon the closing bid price of our common stock for the last 30 consecutive business days, we no longer met the requirement to maintain a minimum bid price of \$1.00 per share, as set forth in Nasdaq Listing Rule 5550(a)(2). In accordance with Nasdaq Listing Rule 5810(c)(3)(A), we were provided a period of 180 calendar days, or until March 5, 2018, in which to regain compliance. We were granted an additional compliance period of 180 calendar days, or until September 4, 2018, in which to regain compliance after meeting the continued listing requirement for market value of publicly held shares and all other initial listing standards for the Nasdaq Capital Market, with the exception of the bid price requirement, and providing notice to Nasdaq staff of our intent to cure the deficiency during this second compliance period, by effecting a reverse stock split, if necessary. In May 2018, we consummated a 1-for-10 reverse stock split pursuant to which the minimum bid price of our common stock rose above \$1.00. On June 8, 2018, we received written notice from Nasdaq that we had regained compliance with the Nasdaq Stock Market Listing Rule 5500(a)(2) concerning our minimum bid price per share of our common stock.

On August 28, 2018, we received a written notice from Nasdaq staff indicating that, based upon the closing bid price of our common stock for the last 30 consecutive business days, we no longer meet the requirement to maintain a minimum bid price of \$1.00 per share, as set forth in Nasdaq Listing Rule 5550(a)(2). In accordance with Nasdaq Listing Rule 5810(c)(3)(A), we have been provided a period of 180 calendar days, or until February 25,

2019, in which to regain compliance. In order to regain compliance with the minimum bid price requirement, the closing bid price of our common stock must be at least \$1.00 per share for a minimum of ten consecutive business days during the 180-day period. In the event we do not regain compliance within this 180-day period, we may be eligible to seek an additional compliance period of 180 calendar days if we meet the continued listing requirement for market value of publicly held shares and all other initial listing standards for the Nasdaq Capital Market, with the exception of the bid price requirement, if we provide written notice to Nasdaq of our intent to cure the deficiency during this second compliance period, by effecting a reverse stock split, if necessary.

If we cease to be eligible to trade on Nasdaq:

- We may have to pursue trading on a less recognized or accepted market, such as the OTC Bulletin Board or the “pink sheets.”
- The trading price of our common stock could suffer, including an increased spread between the “bid” and “asked” prices quoted by market makers.
- Shares of our common stock could be less liquid and marketable, thereby reducing the ability of stockholders to purchase or sell our shares as quickly and as inexpensively as they have done historically. If our stock is traded as a “penny stock,” transactions in our stock would be more difficult and cumbersome.
- We may be unable to access capital on favorable terms or at all, as companies trading on alternative markets may be viewed as less attractive investments with higher associated risks, such that existing or prospective institutional investors may be less interested in, or prohibited from, investing in our common stock. This may also cause the market price of our common stock to decline.

Our share price is volatile, and you may not be able to resell our shares at a profit or at all.

The market price of our common stock could be subject to wide fluctuations in response to numerous factors, some of which are beyond our control. These factors include, among other things:

- fluctuations in our operating results or the operating results of our competitors;
- the outcome of clinical trials involving the use of our products, including our sponsored trials;
- changes in estimates of our financial results or recommendations by securities analysts;
- variance in our financial performance from the expectations of securities analysts;
- changes in the estimates of the future size and growth rate of our markets;
- changes in accounting principles or changes in interpretations of existing principles, which could affect our financial results;
- conditions and trends in the markets we currently serve or which we intend to target with our product candidates;
- changes in general economic, industry and market conditions;
- success of competitive products and services;
- changes in market valuations or earnings of our competitors;
- announcements of significant new products, contracts, acquisitions or strategic alliances by us or our competitors;

- our continuing ability to list our securities on an established market or exchange;
- the timing and outcome of regulatory reviews and approvals of our products;
- the commencement or outcome of litigation involving our company, our general industry or both;
- changes in our capital structure, such as future issuances of securities or the incurrence of additional debt;
- actual or expected sales of our common stock by the holders of our common stock; and
- the trading volume of our common stock.

In addition, the stock market in general, the Nasdaq Capital Market and the market for cell therapy development companies in particular may experience a loss of investor confidence. A loss of investor confidence may result in extreme price and volume fluctuations in our common stock that are unrelated or disproportionate to the operating performance of our business, our financial condition or results of operations, which may materially harm the market price of our common stock and result in substantial losses for stockholders.

The market price of our common stock may decline after you purchase units in this Offering. If that occurs, you may buy shares of our Series D Preferred Stock which are convertible into shares of our common stock at a price greater than the prevailing market price. There is currently no market for our shares of Series D Preferred Stock and, unless we or you choose to convert your shares of Series D Preferred Stock into shares of common stock, you will not be able to re-sell such shares.

Future sales of our common stock may depress our share price.

As of December 31, 2018, we had 14,830,414 shares of our common stock outstanding. Sales of shares of common stock in the public market, including pursuant to our purchase agreement with Lincoln Park Capital Fund, LLC, or our at-the-market offering program, or the expectation of such sales, could cause the market price of our common stock to decline. We may also sell additional common stock or securities convertible into or exercisable or exchangeable for common stock in subsequent public or private offerings or other transactions, which may adversely affect the market price of our common stock.

We have granted demand registration rights for the resale of certain shares of our common stock to each of Astellas Pharma Inc. and Green Hospital Supply, Inc. pursuant to common stock purchase agreements previously entered into with each of these stockholders. An aggregate of approximately 300,000 shares of our common stock are subject to these demand registration rights. If we receive a written request from any of these stockholders to file a registration statement under the Securities Act of 1933, as amended, or the Securities Act, covering its shares of unregistered common stock, we are required to use reasonable efforts to prepare and file with the SEC within 30 business days of such request a registration statement covering the resale of the shares for an offering to be made on a continuous basis pursuant to Rule 415 under the Securities Act.

We have also granted registration rights to Azaya Therapeutics, Inc., or Azaya, with respect to the 117,325 shares of our common stock that we issued in the name of Azaya at the closing of our acquisition of the Cytospor Nanomedicine assets. Under the terms of our asset purchase agreement with Azaya, we filed a registration statement with the SEC covering these shares, which was declared effective by the SEC. Any sales by Azaya could put pressure on our stock and depress our share price.

Our stockholders may experience substantial dilution in the value of their investment if we issue additional shares of our capital stock.

Our charter allows us to issue up to 100,000,000 shares of our common stock and to issue and designate the rights of, without stockholder approval, up to 5,000,000 shares of preferred stock. To raise additional capital, we may in the future sell additional shares of our common stock or other securities convertible into or exchangeable for our common stock at prices that are lower than the prices paid by existing stockholders, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders, which could result in substantial dilution to the interests of existing stockholders.

We may issue debt and equity securities or securities convertible into equity securities, any of which may be senior to our common stock as to distributions and in liquidation, which could negatively affect the value of our common stock.

In the future, we may attempt to increase our capital resources by entering into debt or debt-like financing that is unsecured or secured by up to all of our assets, or by issuing additional debt or equity securities, which could include issuances of secured or unsecured commercial paper, medium-term notes, senior notes, subordinated notes, guarantees, preferred stock, hybrid securities, or securities convertible into or exchangeable for equity securities. In the event of our liquidation, our lenders and holders of our debt and preferred securities would receive distributions of our available assets before distributions to the holders of our common stock. Because our decision to incur debt and issue securities in future offerings may be influenced by market conditions and other factors beyond our control, we cannot predict or estimate the amount, timing or nature of our future offerings or debt financings. Further, market conditions could require us to accept less favorable terms for the issuance of our securities in the future.

Our management will have broad discretion over the use of the net proceeds from this Offering, you may not agree with how we use the proceeds and the proceeds may not be invested successfully.

Our management will have broad discretion as to the use of the net proceeds from this Offering and could use them for purposes other than those contemplated at the time of commencement of this Offering. Accordingly, you will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. It is possible that, pending their use, we may invest the net proceeds in a way that does not yield a favorable, or any, return for us. 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 flows.

Your interest in our company may be diluted as a result of this Offering.

Stockholders who do not purchase units in the Offering should expect that they will, at the completion of this Offering, own a smaller proportional interest in our company than would otherwise be the case had they purchased units in the Offering in an amount proportionate to their holdings before the Offering. Further, the shares issuable upon the exercise of the Warrants to be issued pursuant to the Offering will dilute the ownership interest of stockholders not participating in this Offering or holders of Warrants who have not exercised them.

In addition, our outstanding shares of Series C Convertible Preferred Stock, or the Series C Preferred Stock, contain anti-dilution provisions which, subject to certain exceptions contained in the certificate of designation for the Series C Preferred Stock, if we issue or sell, or are deemed to have issued or sold, any shares of common stock or Common Stock Equivalents (as defined in the certificate of designation) for a consideration per share lower than the conversion price of the Series C Preferred Stock in effect immediately prior to such issuance or sale, or deemed issuance or sale, then the conversion price of the Series C Preferred Stock then in effect will be reduced to an amount equal to such lower price pursuant to the terms of the certificate of designation. Because the public offering price per Class A Unit sold in this Offering will be lower than \$0.7986, the anti-dilution provisions will be triggered in connection with this Offering, which will cause shares of Series C Preferred Stock convertible before the offering into _____ shares of common stock at a conversion price of \$0.7986 per share to become convertible after the Offering into approximately _____ shares of common stock at a conversion price of \$ _____ per share. These anti-dilution provisions would also be triggered by the future issuance by us of shares of common stock or Common

Stock Equivalents (as defined in the certificate of designation) at a price per share below the then-applicable conversion price of the Series C Preferred Stock, subject to limited exceptions.

Completion of the Offering is not subject to us raising a minimum offering amount.

Completion of the Offering is not subject to us raising a minimum offering amount and, therefore, proceeds may be insufficient to meet our objectives, thereby increasing the risk to investors in this Offering, including investing in a company that continues to require capital. See “Use of Proceeds.”

This Offering may cause the trading price of our common stock to decrease.

The unit price, together with the number of shares of common stock we propose to issue and ultimately will issue if this Offering is completed, may result in an immediate decrease in the market price of our common stock. This decrease may continue after the completion of this Offering. If that occurs, you may buy shares of our Series D Preferred Stock which are convertible into shares of our common stock at a price greater than the prevailing market price. We cannot predict the effect, if any, that the availability of shares for future sale represented by the Warrants issued in connection with the Offering will have on the market price of our common stock from time to time. Further, if a substantial number of units are purchased and the holders of the shares received upon exercise of the related Warrants choose to sell some or all of the shares underlying the Warrants, the resulting sales could depress the market price of our common stock.

Holders of our Warrants will have no rights as a common stockholder until such holders exercise their Warrants and acquire our common stock.

Until holders of Warrants acquire shares of our common stock upon exercise of the Warrants, holders of Warrants will have no rights with respect to the shares of our common stock underlying such Warrants. Upon exercise of the Warrants, the holders thereof will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

The unit price determined for this Offering is not an indication of the fair value of our common stock.

In determining the unit price, our board of directors considered a number of factors, including, but not limited to, our need to raise capital in the near term to continue our operations, the current and historical trading prices of our common stock, a price that would increase the likelihood of participation in the Offering, the cost of capital from other sources, the value of the Series D Preferred Stock and Warrants being issued as components of the Unit, comparable precedent transactions, an analysis of stock price trading multiples for companies similar to us that, among other things, did not need to raise capital in the near-term, and our most recently forecasted revenue relative to our peer group. The unit price does not necessarily bear any relationship to any established criteria for value. No valuation consultant or investment banker has opined upon the fairness or adequacy of the unit price. You should not consider the unit price as an indication of the value of our company or our common stock.

Absence of a public trading market for the Warrants may limit your ability to resell the Warrants.

There is no established trading market for the Warrants to be issued pursuant to this Offering, and the Warrants may not be widely distributed. We do not plan to apply to list the Warrants for trading on any public market. Even if a market for the Warrants does develop, the price of the Warrants may fluctuate and liquidity may be limited. If a market for the Warrants does not develop, then purchasers of the Warrants may be unable to resell the Warrants or sell them only at an unfavorable price for an extended period of time, if at all. Future trading prices of the Warrants will depend on many factors, including:

- our operating performance and financial condition;

- our ability to continue the effectiveness of the registration statement, of which this prospectus is a part, covering the Warrants and the common stock issuable upon exercise of the Warrants;
- the interest of securities dealers in making a market; and
- the market for similar securities.

There is no public market for the Series D Preferred Stock in this Offering.

There is no established public trading market for the Series D Preferred Stock, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the Series D Preferred Stock on any securities exchange or recognized trading system.

The market price of our common stock may never exceed the exercise price of the Warrants issued in connection with this Offering.

The Warrants being issued in connection with this Offering become exercisable upon issuance and will expire three years from the date of issuance. The market price of our common stock may never exceed the exercise price of the Warrants prior to their date of expiration. Any Warrants not exercised by their date of expiration will expire worthless and we will be under no further obligation to the Warrant holder.

Since the Warrants are executory contracts, they may have no value in a bankruptcy or reorganization proceeding.

In the event a bankruptcy or reorganization proceeding is commenced by or against us, a bankruptcy court may hold that any unexercised Warrants are executory contracts that are subject to rejection by us with the approval of the bankruptcy court. As a result, holders of the Warrants may, even if we have sufficient funds, not be entitled to receive any consideration for their Warrants or may receive an amount less than they would be entitled to if they had exercised their Warrants prior to the commencement of any such bankruptcy or reorganization proceeding.

FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated herein by reference contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are based on our management's current beliefs, expectations and assumptions about future events, conditions and results and on information currently available to us. Discussions containing these forward-looking statements may be found, among other places, in the Sections entitled "Business," "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" incorporated by reference from our most recent Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q, as well as any amendments thereto, filed with the SEC.

All statements, other than statements of historical fact, included or incorporated herein regarding our strategy, future operations, financial position, future revenues, projected costs, plans, prospects and objectives are forward-looking statements. Words such as "expect," "anticipate," "intend," "plan," "believe," "seek," "estimate," "think," "may," "could," "will," "would," "should," "continue," "potential," "likely," "opportunity" and similar expressions or variations of such words are intended to identify forward-looking statements, but are not the exclusive means of identifying forward-looking statements. Additionally, forward-looking statements include statements concerning future matters such as our anticipated expenditures, including those related to pre-clinical and clinical trials and research studies and general and administrative expenses, the potential size of the markets for our products, future development and/or expansion of our products and therapies in our markets, our ability to generate product revenues or effectively manage our gross profit margins, our ability to obtain regulatory clearances, our ability to commercialize our novel cell therapy platform products and our nanomedicine platform, expectations as to our future performance, liquidity and capital resources, including our potential need for additional financing and the availability thereof as well as our ability to continue to service our existing debt, and the potential enhancement of our cash position and stock price through development, marketing, and licensing arrangements. Such statements are based on currently available operating, financial and competitive information and are subject to various risks, uncertainties and assumptions that could cause actual results to differ materially from those anticipated or implied in our forward-looking statements due to a number of factors including, but not limited to, our need and ability to raise additional cash, our joint ventures, risks associated with laws or regulatory requirements applicable to us, the impact of changes in the tax code as a result of recent federal tax legislation and uncertainty as to how some of those changes may be applied, market conditions, product performance, potential litigation, competition within the regenerative medicine field, and other factors set forth above under the section entitled "Risk Factors" in this prospectus and any accompanying prospectus supplement. Given these risks, uncertainties and other factors, many of which are beyond our control, you should not place undue reliance on these forward-looking statements.

Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to revise any forward-looking statements to reflect events or developments occurring after the date of this prospectus, even if new information becomes available in the future.

USE OF PROCEEDS

We estimate that the net proceeds from this Offering will be approximately \$ million, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We will not receive any additional proceeds from any future conversions of the Series D Preferred Stock. We will only receive additional proceeds from the exercise of the Warrants issuable in connection with this Offering if the Warrants are exercised and the holders of such Warrants pay the exercise price in cash upon such exercise and do not utilize the cashless exercise provision of the Warrants.

We intend to use net proceeds from this Offering for working capital, payment of interest on our debt and general corporate purposes, which may include research and development of our oncology product pipeline, preclinical and clinical trials and studies, regulatory submissions, expansion of our sales and marketing organizations and efforts, intellectual property protection and enforcement and capital expenditures. We have not yet determined the amount of net proceeds to be used specifically for any particular purpose or the timing of these expenditures. We may use a portion of the net proceeds to acquire complementary products, technologies or businesses or to repay principal on our debt; however, we currently have no agreements or commitments to complete any such transactions or to make any such principal repayments and are not involved in negotiations to do so. Accordingly, our management will have significant discretion and flexibility in applying the net proceeds from the sale of these securities.

MARKET PRICE OF OUR COMMON STOCK AND RELATED STOCKHOLDER MATTERS

From August 2000 (our initial public offering in Germany) until September 2007, our common stock was quoted on the Frankfurt Stock Exchange under the symbol “XMPA” (formerly XMP). In September 2007, our stock closed trading on the Frankfurt Stock Exchange. In December 2005, our common stock commenced trading on the Nasdaq Capital Market under the symbol “CYTX.” From December 2005 until February 2006, our common stock traded on the Nasdaq Capital Market, from February 2006 until February 2016, it traded on the Nasdaq Global Market, and since February 2016, it has traded on the Nasdaq Capital Market.

The closing price of our common stock on January 31, 2019 was \$0.3353 per share. All of our outstanding shares have been deposited with the Depository Trust & Clearing Corporation, or DTCC, since December 2005. As of December 31, 2018, we had approximately 14 record holders of our common stock. Because many of our shares are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of individual stockholders represented by these record holders.

DIVIDEND POLICY

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

DESCRIPTION OF SECURITIES

In this Offering, we are offering for sale Class A Units and Class B Units. Each Class A Unit consists of one share of common stock and one Warrant to purchase one half of one share of common stock. Each Class B Unit consists of one share of Series D Preferred Stock and Warrants to purchase shares of common stock. The shares of common stock, Series D Preferred Stock and Warrants comprising the units are immediately separable and will be issued separately, but will be purchased together in this Offering. We are also registering the shares of common stock issuable upon conversion of the Series D Preferred Stock and exercise of the Warrants. These securities are being issued pursuant to an underwriting agreement between us and the underwriter. You should review the underwriting agreement, certificate of designation for the Series D Preferred Stock and the form of Warrant, each filed as exhibits to the registration statement of which this prospectus is a part, for a complete description of the terms and conditions applicable to the Series D Preferred Stock and the Warrants. The following brief summary of the material terms and provisions of the Series D Preferred Stock and the Warrants is subject to, and qualified in its entirety by, the certificate of designation for the Series D Preferred Stock and the form of Warrant.

Units

We are offering Class A Units, with each Class A Unit consisting of one share of common stock and a Warrant to purchase one half of one share of our common stock at an exercise price per share of \$, together with the shares of common stock underlying such warrants, at an assumed public offering price of \$ per Class A Unit. The Class A Units will not be certificated and the shares of common stock and Warrants part of such units are immediately separable and will be issued separately in this Offering.

We are also offering to those purchasers whose purchase of Class A Units in this Offering would result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock following the consummation of this Offering, the opportunity to purchase, in lieu of the number of Class A Units that would result in ownership in excess of 4.99% (or, at the election of the purchaser, 9.99%), Class B Units. Each Class B Unit consists of one share of Series D preferred stock, par value \$0.001 per share, convertible into shares of common stock and Warrants to purchase shares of our common stock at an exercise price per share of \$, together with the shares of common stock underlying such shares of Series D Preferred Stock and Warrants, at an assumed public offering price of \$ per Class B Unit. The Class B Units will not be certificated and the shares of Series D Preferred Stock and the Warrants part of such units are immediately separable and will be issued separately in this Offering.

Description of Capital Stock

Our authorized capital stock consists of 100,000,000 shares of common stock, \$0.001 par value per share, and 5,000,000 shares of preferred stock, \$0.001 par value per share. Of our 5,000,000 shares of authorized preferred stock, 13,500 shares have been designated as Series A Preferred Stock, 10,000 have been designated as Series B Preferred Stock, 7,000 have been designated as Series C Preferred Stock and have been designated as Series D Preferred Stock.

Preferred Stock

We have 5,000,000 shares of authorized preferred stock, \$0.001 par value, 30,223 shares of which were issued and 4,624 of which were outstanding as of September 30, 2018. Of this amount, 13,500 shares have been designated Series A 3.6% Convertible Preferred Stock, none of which are outstanding, 10,000 shares have been designated Series B Convertible Preferred Stock, 1,114 shares of which are outstanding, and 7,000 shares have been designated Series C Convertible Preferred Stock, 3,510 shares of which are outstanding, in each case as of September 30, 2018. Our board of directors is authorized, without action by our stockholders, to classify or reclassify any unissued portion of our authorized shares of preferred stock to provide for the issuance of shares of other classes or series, including preferred stock in one or more series. Our board of directors may fix or alter the dividend rights,

dividend rate, conversion rights, voting rights, rights and terms of redemption (including sinking fund provisions), the redemption price or prices, the liquidation preferences of any wholly unissued series of preferred stock, and the number of shares constituting any such series and the designation thereof, or any of them. Our board of directors may also increase or decrease the number of shares of any series subsequent to the issue of shares of that series, but not below the number of shares of such series then outstanding. In case the number of shares of any series shall be so decreased, the shares constituting such decrease shall resume the status which they had prior to the adoption of the resolution originally fixing the number of shares of such series.

The transfer agent for each class of our preferred stock is Broadridge Corporate Issuer Solutions, Inc.

Series B Preferred Stock

Conversion. Each share of Series B Preferred Stock is convertible, at our option at any time on or after November 28, 2018 or at the option of the holder at any time, into the number of shares of our common stock determined by dividing the \$1,000 stated value per share of the Series B Preferred Stock by a conversion price of \$3.333 per share. In addition, the conversion price per share is subject to adjustment for stock dividends, distributions, subdivisions, combinations or reclassifications. Subject to limited exceptions, a holder of the Series B Preferred Stock will not have the right to convert any portion of the Series B Preferred Stock to the extent that, after giving effect to the conversion, the holder, together with its affiliates, would beneficially own in excess of 9.99% of the number of shares of our common stock outstanding immediately after giving effect to its conversion.

Fundamental Transactions. In the event we effect certain mergers, consolidations, sales of substantially all of our assets, tender or exchange offers, reclassifications or share exchanges in which our common stock is effectively converted into or exchanged for other securities, cash or property, we consummate a business combination in which another person acquires 50% of the outstanding shares of our common stock, or any person or group becomes the beneficial owner of 50% of the aggregate ordinary voting power represented by our issued and outstanding common stock, then, upon any subsequent conversion of the Series B Preferred Stock, the holders of the Series B Preferred Stock will have the right to receive any shares of the acquiring corporation or other consideration it would have been entitled to receive if it had been a holder of the number of shares of common stock then issuable upon conversion in full of the Series B Preferred Stock.

Dividends. Holders of Series B Preferred Stock are entitled to receive dividends (on an as-if-converted-to-common-stock basis) in the same form as dividends actually paid on shares of the common stock when, as and if such dividends are paid on shares of common stock.

Voting Rights. Except as otherwise provided in the certificate of designation for the Series B Preferred Stock or as otherwise required by law, the Series B Preferred Stock has no voting rights.

Liquidation Preference. Upon our liquidation, dissolution or winding-up, whether voluntary or involuntary, holders of Series B Preferred Stock will be entitled to receive out of our assets, whether capital or surplus, an amount equal to the \$1,000 stated value per share for each share of Series B Preferred Stock before any distribution or payment shall be made to the holders of any junior securities.

Redemption Rights. We are not obligated to redeem or repurchase any shares of Series B Preferred Stock. Shares of Series B Preferred Stock are not otherwise entitled to any redemption rights, or mandatory sinking fund or analogous fund provisions.

Series C Preferred Stock

Conversion. Each share of Series C Preferred Stock will be convertible, at our option at any time on or after July 25, 2020, subject to certain conditions, or at the option of the holder at any time, into the number of shares of our common stock determined by dividing the \$1,000 stated value per share of the Series C Preferred Stock by a conversion price of \$0.7986. In addition, the conversion price per share is subject to adjustment for stock dividends, distributions, subdivisions, combinations or reclassifications. Subject to limited exceptions, a holder of the Series C Preferred Stock will not have the right to convert any portion of the Series C Preferred Stock to the extent that, after

giving effect to the conversion, the holder, together with its affiliates, would beneficially own in excess of 9.99% of the number of shares of our common stock outstanding immediately after giving effect to its conversion.

Anti-Dilution. Subject to certain exceptions contained in the certificate of designation for the Series C Preferred Stock, including our ability to issue securities in connection with equity awards to service providers, strategic transactions, debt financings, research and development partnerships, an equity line of credit, our “at the market” equity offering program and other customary exceptions, if we issue or sell, or are deemed to have issued or sold, any shares of common stock or Common Stock Equivalents (as defined in the certificate of designation) for a consideration per share lower than the conversion price of the Series C Preferred Stock in effect immediately prior to such issuance or sale, or deemed issuance or sale, then the conversion price of the Series C Preferred Stock then in effect will be reduced to an amount equal to such lower price pursuant to the terms of the certificate of designation.

Fundamental Transactions. In the event we effect certain mergers, consolidations, sales of substantially all of our assets, tender or exchange offers, reclassifications or share exchanges in which our common stock is effectively converted into or exchanged for other securities, cash or property, we consummate a business combination in which another person acquires 50% of the outstanding shares of our common stock, or any person or group becomes the beneficial owner of 50% of the aggregate ordinary voting power represented by our issued and outstanding common stock, then, upon any subsequent conversion of the Series C Preferred Stock, the holders of the Series C Preferred Stock will have the right to receive any shares of the acquiring corporation or other consideration it would have been entitled to receive if it had been a holder of the number of shares of common stock then issuable upon conversion in full of the Series C Preferred Stock.

Dividends. Holders of Series C Preferred Stock are entitled to receive dividends (on an as-if-converted-to-common-stock basis) in the same form as dividends actually paid on shares of the common stock when, as and if such dividends are paid on shares of common stock.

Voting Rights. Except as otherwise provided in the certificate of designation or as otherwise required by law, the Series C Preferred Stock has no voting rights.

Liquidation Preference. Upon our liquidation, dissolution or winding-up, whether voluntary or involuntary, holders of Series C Preferred Stock will be entitled to receive out of our assets, whether capital or surplus, an amount equal to the \$1,000 stated value per share for each share of Series C Preferred Stock before any distribution or payment shall be made to the holders of any junior securities.

Redemption Rights. We are not obligated to redeem or repurchase any shares of Series C Preferred Stock. Shares of Series C Preferred Stock are not otherwise entitled to any redemption rights, or mandatory sinking fund or analogous fund provisions.

Series D Preferred Stock Included in the Class B Units

The preferences and rights of the Series D Preferred Stock are as set forth in a Certificate of Designation of Series D Convertible Preferred Stock, or the Series D Certificate of Designation, filed as exhibits to the registration statement of which this prospectus is a part. The following is a summary of the material terms of our Series D Preferred Stock and is qualified in its entirety by the Series D Certificate of Designation. Please refer to the Series D Certificate of Designation for more information on the preferences, rights and limitations of Series D Preferred Stock.

Conversion. Each share of Series D Preferred Stock is convertible, at any time and from time to time at the option of the holder thereof, into that number of shares of common stock determined by dividing \$ by the conversion price of \$ (subject to adjustment as described below). This right to convert is limited by the beneficial ownership limitation described below.

Fundamental Transactions. In the event we effect certain mergers, consolidations, sales of substantially all of our assets, tender or exchange offers, reclassifications or share exchanges in which our common stock is effectively converted into or exchanged for other securities, cash or property, we consummate a business combination in which another person acquires 50% of the outstanding shares of our common stock, or any person or group becomes the beneficial owner of 50% of the aggregate ordinary voting power represented by our issued and outstanding common stock, then, upon any subsequent conversion of the Series D Preferred Stock, the holders of the Series D Preferred Stock will have the right to receive any shares of the acquiring corporation or other consideration it would have been entitled to receive if it had been a holder of the number of shares of common stock then issuable upon conversion in full of the Series D Preferred Stock.

Dividends. Holders of the Series D Preferred Stock will be entitled to receive dividends equal (on an as-converted-to-common-stock basis) to and in the same form as dividends actually paid on shares of our common stock when, as and if such dividends are paid on shares of our common stock.

Voting Rights. Except as otherwise provided in the Series D Certificate of Designation or as otherwise required by law, the Series D Preferred Stock has no voting rights.

Liquidation Preference. Upon our liquidation, dissolution or winding-up, whether voluntary or involuntary, holders of Series D Preferred Stock will be entitled to receive out of our assets, whether capital or surplus, an amount equal to the \$ stated value per share for each share of Series D Preferred Stock before any distribution or payment shall be made to the holders of any junior securities.

Redemption Rights. We are not obligated to redeem or repurchase any shares of Series D Preferred Stock. Shares of Series D Preferred Stock are not otherwise entitled to any redemption rights, or mandatory sinking fund or analogous fund provisions.

Beneficial Ownership Limitation. A holder shall have no right to convert any portion of Series D Preferred Stock, to the extent that, after giving effect to such conversion, such holder, together with such holder's affiliates, and any persons acting as a group together with such holder or any such affiliate, would beneficially own in excess of 4.99% (or, upon election by a holder prior to the issuance of any shares of Series D Preferred Stock, 9.99%) of the number of shares of common stock outstanding immediately after giving effect to the issuance of shares of common stock upon such conversion (subject to the right of the holder to increase such beneficial ownership limitation upon not less than 61 days prior notice provided that such limitation can never exceed 9.99% and such 61 day period cannot be waived). Beneficial ownership of the holder and its affiliates will be determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder. Holders of Series D Preferred Stock who are subject to such beneficial ownership limitation are and will remain responsible for ensuring their own compliance with Regulation 13D-G promulgated under the Securities Exchange Act of 1934, as amended, consistent with their individual facts and circumstances. In addition, pursuant to Rule 13d-3(d)(1)(i) promulgated under the Securities Exchange Act of 1934, as amended, any person who acquires Series D Preferred Stock with the purpose or effect of changing or influencing the control of our company, or in connection with or as a participant in any transaction having such purpose or effect, immediately upon such acquisition will be deemed to be the beneficial owner of the underlying common stock.

Stock Dividends and Stock Splits. If we pay a stock dividend or otherwise make a distribution payable in shares of common stock on shares of common stock or any other common stock equivalents, subdivide or combine outstanding common stock, or reclassify common stock, the conversion price will be adjusted by multiplying the conversion price by a fraction, the numerator of which shall be the number of shares of common stock outstanding immediately before such event, and the denominator of which shall be the number of shares outstanding immediately after such event.

The Series D Preferred Stock will be issued in book-entry, or uncertificated, form meaning that you will receive a direct registration account statement from our transfer agent reflecting ownership of these securities if you are a holder of record of shares. If you hold your shares of common stock or Series D Preferred Stock in the name of a bank, broker, dealer, or other nominee DTC will credit your account with your nominee with the securities you purchased in the Offering.

Description of Warrants Included in the Units

The material terms and provisions of the Warrants being offered pursuant to this prospectus are summarized below. This summary of some provisions of the Warrants is not complete. For the complete terms of the Warrants, you should refer to the form of Series U Warrant filed as an exhibit to the registration statement of which this prospectus forms a part. The Warrants that are purchased in the Offering as part of the units will be issued pursuant to a separate warrant agreement to be entered into between purchasers and the Company.

Each Class A Unit includes a Warrant to purchase one half of one share of our common stock and each Class B Unit includes Warrants to purchase shares of our common stock at an exercise price equal to \$ per share at any time for up to three years after the date of the closing of this Offering. The Warrants issued in this Offering will be governed by the terms of a global warrant held in book-entry form. The holder of a Warrant will not be deemed a holder of our underlying common stock until the Warrant is exercised.

Subject to certain limitations as described below the Warrants are immediately exercisable upon issuance on the closing date and expire on the three year anniversary of the closing date. Subject to limited exceptions, a holder of Warrants will not have the right to exercise any portion of its Warrants if the holder (together with such holder's affiliates, and any persons acting as a group together with such holder or any of such holder's affiliates) would beneficially own a number of shares of common stock in excess of 4.99% (or, at the election of the purchaser prior to the date of issuance, 9.99%) of the shares of our common stock then outstanding after giving effect to such exercise.

The exercise price and the number of shares issuable upon exercise of the Warrants is subject to appropriate adjustment in the event of recapitalization events, stock dividends, stock splits, stock combinations, reclassifications, reorganizations or similar events affecting our common stock. The Warrant holders must pay the exercise price in cash upon exercise of the Warrants, unless such Warrant holders are utilizing the cashless exercise provision of the Warrants.

In addition, in the event we consummate a merger or consolidation with or into another person or other reorganization event in which our common shares are converted or exchanged for securities, cash or other property, or we sell, lease, license, assign, transfer, convey or otherwise dispose of all or substantially all of our assets or we or another person acquire 50% or more of our outstanding shares of common stock, then following such event, the holders of the Warrants will be entitled to receive upon exercise of such Warrants the same kind and amount of securities, cash or property which the holders would have received had they exercised their Warrants immediately prior to such fundamental transaction. Any successor to us or surviving entity shall assume the obligations under the Warrants.

Upon the holder's exercise of a Warrant, we will issue the shares of common stock issuable upon exercise of the Warrant within two trading days following our receipt of a notice of exercise, provided that payment of the exercise price has been made (unless exercised via the "cashless" exercise provision). Prior to the exercise of any Warrants to purchase common stock, holders of the Warrants will not have any of the rights of holders of the common stock purchasable upon exercise, including the right to vote, except as set forth therein.

Warrant holders may exercise Warrants only if the issuance of the shares of common stock upon exercise of the Warrants is covered by an effective registration statement, or an exemption from registration is available under the Securities Act and the securities laws of the state in which the holder resides. We intend to use commercially reasonable efforts to have the registration statement, of which this prospectus forms a part, effective when the Warrants are exercised. The Warrant holders must pay the exercise price in cash upon exercise of the Warrants unless there is not an effective registration statement or, if required, there is not an effective state law registration or exemption covering the issuance of the shares underlying the Warrants (in which case, the Warrants may only be exercised via a "cashless" exercise provision).

The Warrants are callable by us in certain circumstances. Subject to certain exceptions, in the event that the Warrants are outstanding, if, after the closing date, (i) the volume weighted average price of our common stock for each of consecutive trading days, or the Measurement Period, which Measurement Period commences on the closing date, exceeds % of the exercise price (subject to adjustment for forward and reverse stock splits, recapitalizations, stock dividends and similar transactions after the initial exercise date), (ii) the average daily trading volume for such Measurement Period exceeds \$ per trading day and (iii) certain other equity conditions are met, and subject to the Beneficial Ownership Limitation, then we may, within one trading day of the end of such Measurement Period, upon notice, or a Call Notice, call for cancellation of all or any portion of the Warrants for which a notice of exercise has not yet been delivered, or a Call, for consideration equal to \$ per Warrant share. Any portion of a Warrant subject to such Call Notice for which a notice of exercise shall not have been received by the Call Date (as hereinafter defined) will be canceled at 6:30 p.m. (New York City time) on the tenth trading day after the date the Call Notice is sent by the Company (such date and time, the Call Date). Our right to call the Warrants shall be exercised ratably among the holders based on the then outstanding Warrants. We do not intend to apply for listing of the Warrants on any securities exchange or other trading system.

Common Stock

This section describes the general terms and provisions of the shares of our common stock, \$0.001 par value. This description is only a summary and is qualified in its entirety by reference to the description of our common stock included in our amended and restated certificate of incorporation, as amended, and our amended and restated bylaws, as amended, which have been filed as exhibits to the registration statement of which this prospectus is a part. You should read our amended and restated certificate of incorporation and our amended and restated bylaws for additional information before you buy any of our common stock or other securities. See “Where You Can Find More Information” and “Incorporation by Reference.”

We have 100,000,000 shares of authorized common stock. As of December 31, 2018, there were 14,830,414 shares of common stock issued and outstanding, warrants to purchase 8,887,800 shares of common stock outstanding, options to purchase 137,602 shares of common stock outstanding and 51 shares of common stock issuable upon vesting of restricted stock awards. The holders of common stock possess exclusive voting rights in us, except to the extent our board of directors specifies voting power with respect to any other class of securities issued in the future. Each holder of our common stock is entitled to one vote for each share held of record on each matter submitted to a vote of stockholders, including the election of directors. Stockholders do not have any right to cumulate votes in the election of directors.

Subject to preferences that may be granted to the holders of preferred stock, each holder of our common stock is entitled to share ratably in distributions to stockholders and to receive ratably such dividends as may be declared by our board of directors out of funds legally available therefor. In the event of our liquidation, dissolution or winding up, the holders of our common stock will be entitled to receive, after payment of all of our debts and liabilities and of all sums to which holders of any preferred stock may be entitled, the distribution of any of our remaining assets. Holders of our common stock have no conversion, exchange, sinking fund, redemption or appraisal rights (other than such as may be determined by our board of directors in its sole discretion) and have no preemptive rights to subscribe for any of our securities.

All of the outstanding shares of our common stock are, and the shares of common stock issued upon the conversion of any securities convertible into our common stock will be, fully paid and non-assessable. The shares of common stock offered by this prospectus or upon the conversion of any preferred stock or debt securities or exercise of any Warrants offered pursuant to this prospectus, when issued and paid for, will also be, fully paid and non-assessable.

Our common stock is listed on Nasdaq under the symbol “CYTX.”

Delaware Anti-Takeover Statute

We are subject to Section 203 of the DGCL, an anti-takeover statute. In general, Section 203 of the DGCL prohibits a publicly held Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years following the time the person became an interested stockholder, unless the business combination or the acquisition of shares that resulted in a stockholder becoming an interested stockholder is approved in a prescribed manner. Generally, a “business combination” includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. Generally, an “interested stockholder” is a person who, together with affiliates and associates, owns (or within three years prior to the determination of interested stockholder status did own) 15% or more of a corporation’s voting stock. The existence of this provision would be expected to have an anti-takeover effect with respect to transactions not approved in advance by our board of directors, including discouraging attempts that might result in a premium over the market price for the shares of common stock held by our stockholders.

Board Vacancies

Our amended and restated bylaws provide that any vacancy or vacancies in our board of directors shall be deemed to exist in the case of the death, resignation or removal of any director, or if the authorized number of directors be increased. Vacancies may be filled by a majority of the remaining directors, though less than a quorum, or by a sole remaining director, unless otherwise provided in our amended and restated of incorporation, as amended. The stockholders may elect a director or directors at any time to fill any vacancy or vacancies not filled by the directors.

Undesignated Preferred Stock

The authority possessed by our board of directors to issue preferred stock could potentially be used to discourage attempts by third parties to obtain control of our company through a merger, tender offer, proxy contest or otherwise by making such attempts more difficult or more costly. Our board of directors may issue preferred stock with voting rights or conversion rights that, if exercised, could adversely affect the voting power of the holders of our common stock.

Special Meeting Requirements

Our amended and restated bylaws provide that special meetings of our stockholders may only be called at the request of our president, chief executive officer or chairman of the board or by a majority of our Board of Directors.

No Cumulative Voting

The DGCL provides that stockholders are denied the right to cumulate votes in the election of directors unless our amended and restated of incorporation, as amended, provides otherwise. Our amended and restated of incorporation does not provide for cumulative voting.

Authorized but Unissued Shares

Our authorized but unissued shares of common stock and preferred stock will be available for future issuance without stockholder approval. We may use additional shares for a variety of purposes, including future public offerings to raise additional capital, to fund acquisitions and as employee compensation. The existence of authorized but unissued shares of common stock and preferred stock could render more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

The above provisions may deter a hostile takeover or delay a change in control or management of us.

Transfer Agent

The transfer agent and registrar for our common stock is Broadridge Corporate Issuer Solutions, Inc.

UNDERWRITING

We have entered into an underwriting agreement dated _____ with _____, as the underwriter and the book-running manager of this Offering. Subject to the terms and conditions of the underwriting agreement, the underwriter has agreed to purchase the number of our securities set forth opposite its name below.

Underwriter	Class A Units	Class B Units
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A copy of the underwriting agreement will be filed as an exhibit to the registration statement of which this prospectus is part.

We have been advised by the underwriter that they propose to offer the securities directly to the public at the public offering price set forth on the cover page of this prospectus. Any securities sold by the underwriter to securities dealers will be sold at the public offering price less a selling concession not in excess of \$ _____ per share and \$ _____ per Warrant.

The underwriting agreement provides that subject to the satisfaction or waiver by the representative of the conditions contained in the underwriting agreement, the underwriter is obligated to purchase and pay for all of the securities offered by this prospectus.

No action has been taken by us or the underwriter that would permit a public offering of the units in any jurisdiction outside the United States where action for that purpose is required. None of our securities included in this Offering may be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sales of any of the securities offered hereby be distributed or published in any jurisdiction except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons who receive this prospectus are advised to inform themselves about and to observe any restrictions relating to this Offering of securities and the distribution of this prospectus. This prospectus is neither an offer to sell nor a solicitation of any offer to buy the securities in any jurisdiction where that would not be permitted or legal.

The underwriter has advised us that they do not intend to confirm sales to any account over which they exercise discretionary authority.

Underwriting Discount and Expenses

The following table summarizes the underwriting discount and commission to be paid to the underwriter by us.

	Class A Units	Class B Units	Total
Public offering price			
Underwriting discount to be paid to the underwriter by us			
Proceeds to us (before expenses)			

We estimate the total expenses payable by us for this Offering to be approximately \$ _____ which amount includes (i) the underwriting discount of \$ _____, (ii) reimbursement of the accountable expenses of the representative equal to \$ _____ including the legal fees of the representative being paid by us and (iii) other estimated company expenses of approximately \$ _____ which includes legal accounting printing costs and various fees associated with the registration of our securities.

Determination of Offering Price

Our common stock is currently traded on the Nasdaq Capital Market under the symbol "CYTX." On _____, 2019 the closing price of our common stock was \$ _____ per share. We do not intend to apply for listing of the Series D Preferred Stock or Warrants on any securities exchange or other trading system.

The public offering price of the securities offered by this prospectus will be determined by negotiation between us and the underwriter. Among the factors considered in determining the public offering price of the shares of preferred stock and Warrants were:

- our history and our prospects;
- the industry in which we operate;
- our past and present operating results;
- the previous experience of our executive officers; and
- the general condition of the securities markets at the time of this Offering.

The offering price stated on the cover page of this prospectus should not be considered an indication of the actual value of the securities sold in this Offering. That price is subject to change as a result of market conditions and other factors and we cannot assure you that the shares of Series D Preferred Stock and Warrants sold in this Offering can be resold at or above the public offering price.

Lock-up Agreements

Our officers, directors and each of their respective affiliates and associated persons have agreed with the representative to be subject to a lock-up period of _____ days following the date of this prospectus. This means that, during the applicable lock-up period, such persons may not offer for sale, contract to sell, sell, distribute, grant any option, right or warrant to purchase, pledge, hypothecate or otherwise dispose of, directly or indirectly, any shares of our common stock or any securities convertible into, or exercisable or exchangeable for, shares of our common stock. Certain limited transfers are permitted during the lock-up period if the transferee agrees to these lock-up restrictions.

We have also agreed, in the underwriting agreement, to similar lock-up restrictions on the issuance and sale of our securities for _____ following the closing of this Offering, although we will be permitted to issue stock options or stock awards to directors, officers and employees under our existing plans. The lock-up period is subject to an additional extension to accommodate for our reports of financial results or material news releases. The representative may, in its sole discretion and without notice, waive the terms of any of these lock-up agreements.

Stabilization, Short Positions and Penalty Bids

The underwriter may engage in stabilizing transactions for the purpose of pegging, fixing or maintaining the price of our common stock. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specific maximum. These stabilizing transactions may have the effect of raising or maintaining the market prices of our securities or preventing or retarding a decline in the market prices of our securities. As a result the price of our common stock may be higher than the price that might otherwise exist in the open market. Neither we nor the underwriter make any representation or prediction as to the effect that stabilizing transactions may have on the price of our common stock. These transactions may be effected on the Nasdaq Capital Market, in the over-the-counter market or on any other trading market and, if commenced, may be discontinued at any time.

In connection with this Offering, the underwriter also may engage in passive market making transactions in our common stock in accordance with Regulation M. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for that security. However, if all independent bids are lowered below the passive market maker's bid that bid must then be lowered when specific purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

Neither we, nor the underwriter make any representations or predictions as to the direction or magnitude of any effect that the transactions described above may have on the prices of our securities. In addition, neither we nor the underwriter make any representations that the underwriter will engage in these transactions or that any transactions, once commenced will not be discontinued without notice.

Indemnification

We have agreed to indemnify the underwriter against certain liabilities, including certain liabilities arising under the Securities Act or to contribute to payments that the underwriter may be required to make for these liabilities.

CERTAIN MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS

The following discussion is a summary of the material U.S. federal income tax consequences of the purchase, ownership and disposition of the Class A Units or components thereof and the Class B Units or components thereof, which we refer to collectively as the Units, issued pursuant to this offering and shares of our common stock received upon conversion of our Series D Preferred Stock or the exercise of the Warrants, but does not purport to be a complete analysis of all potential tax effects. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local or non-U.S. tax laws are not discussed. This discussion is based on the U.S. Internal Revenue Code of 1986, as amended, or Code, Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the U.S. Internal Revenue Service, or IRS, in each case in effect as of the date hereof. These authorities may change or be subject to differing interpretations. Any such change or differing interpretation may be applied retroactively in a manner that could adversely affect a holder of shares of our Series D Preferred Stock, Warrants or shares of our common stock. We have not sought and will not seek any rulings from the IRS regarding the matters discussed below. There can be no assurance the IRS or a court will not take a contrary position to that discussed below regarding the tax consequences of the acquisition, ownership and disposition of the Units and shares of our common stock received upon conversion of our Series D Preferred Stock or the exercise of the Warrants.

This discussion is limited to holders that hold shares of our Series D Preferred Stock, Warrants or shares of our common stock as a “capital asset” within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all U.S. federal income tax consequences relevant to a holder’s particular circumstances, including the impact of the alternative minimum tax or the unearned income Medicare contribution tax. In addition, it does not address consequences relevant to holders subject to particular rules, including, without limitation:

- U.S. expatriates and former citizens or long-term residents of the United States;
- persons holding shares of our Series D Preferred Stock, Warrants or shares of our common stock as part of a hedge, straddle or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- banks, insurance companies, and other financial institutions;
- brokers, dealers or traders in securities;
- “controlled foreign corporations,” “passive foreign investment companies,” and corporations that accumulate earnings to avoid U.S. federal income tax;
- entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein);
- tax-exempt organizations or governmental organizations;
- persons deemed to sell Series D Preferred Stock, Warrants or shares of our common stock under the constructive sale provisions of the Code;
- persons subject to special tax accounting rules as a result of any item of gross income with respect to shares of our Series D Preferred Stock, Warrants or shares of our common stock being taken into account in an “applicable financial statement” (as defined in the Code);
- persons for whom our stock constitutes “qualified small business stock” within the meaning of Section 1202 of the Code;
- persons who hold or receive shares of our Series D Preferred Stock, Warrants or shares of our common stock pursuant to the exercise of any employee stock option or otherwise as compensation; and
- tax-qualified retirement plans.

If an entity treated as a partnership for U.S. federal income tax purposes holds shares of our Series D Preferred Stock, Warrants or shares of our common stock, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

THIS DISCUSSION IS FOR INFORMATION PURPOSES ONLY AND IS NOT TAX ADVICE. INVESTORS SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE ACQUISITION, OWNERSHIP, AND DISPOSITION OF UNITS AND SHARES OF OUR COMMON STOCK RECEIVED UPON CONVERSION OF OUR SERIES D PREFERRED STOCK OR THE EXERCISE OF THE WARRANTS ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.

Characterization of Units

Each Class A Unit will be treated for U.S. federal income tax purposes as an investment unit consisting of one share of our common stock and a warrant to purchase one half of one share of our common stock. Each Class B Unit will be treated for U.S. federal income tax purposes as an investment unit consisting of one share of our Series D Preferred Stock and a warrant to purchase one half of one share of our common stock. In determining their tax basis for the common stock and the warrant composing the Class A Unit or their tax basis for the Series D Preferred Stock and the warrant composing the Class B Unit, purchasers of Units should allocate their purchase price for the applicable Unit between the components on the basis of their relative fair market values at the time of issuance. We do not intend to advise purchasers of the Units with respect to this determination, and purchasers of the Units are advised to consult their tax and financial advisors with respect to the relative fair market values of the common stock and the warrants, and the Series D Preferred Stock and the warrants, respectively, for U.S. federal income tax purposes.

Tax Considerations Applicable to U.S. Holders

Definition of a U.S. Holder

For purposes of this discussion, a “U.S. holder” is any beneficial owner of Series D Preferred Stock, Warrants or shares of our common stock that, for U.S. federal income tax purposes, is:

- an individual who is a citizen or resident of the United States;
- a corporation (or other entity treated as a corporation for U.S. federal income tax purposes) created or organized under the laws of the United States, any state thereof, or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust that (1) is subject to the primary supervision of a U.S. court and the control of one or more United States persons (within the meaning of Section 7701(a)(30) of the Code), or (2) has made a valid election under applicable Treasury Regulations to continue to be treated as a United States person.

Sale or Other Disposition, Exercise or Expiration of Warrants

Upon the sale or other disposition of a Warrant (other than by exercise), a U.S. holder will generally recognize capital gain or loss equal to the difference between the amount realized on the sale or other disposition and the U.S. holder’s tax basis in the Warrant. This capital gain or loss will be long-term capital gain or loss if the U.S. holder’s holding period in such Warrant is more than one year at the time of the sale or other disposition. The deductibility of capital losses is subject to certain limitations.

In general, a U.S. holder will not be required to recognize income, gain or loss upon exercise of a Warrant for its exercise price. A U.S. holder's tax basis in a share of our common stock received upon exercise of the Warrants will be equal to the sum of (1) the U.S. holder's tax basis in the Warrants exchanged therefor and (2) the exercise price of such Warrants. A U.S. holder's holding period in the shares of our common stock received upon exercise will commence on the day after such U.S. holder exercises the Warrants. Although there is no direct legal authority as to the U.S. federal income tax treatment of an exercise of a Warrant on a cashless basis, we intend to take the position that such exercise will not be taxable, either because the exercise is not a gain realization event or because it qualifies as a tax-free recapitalization. In the former case, the holding period of the shares of our common stock received upon exercise of Warrants should commence on the day after the Warrants are exercised. In the latter case, the holding period of the shares of our common stock received upon exercise of Warrants would include the holding period of the exercised Warrants. However, our position is not binding on the IRS, and the IRS may treat a cashless exercise of a Warrant as a taxable exchange. U.S. holders are urged to consult their tax advisors as to the consequences of an exercise of a Warrant on a cashless basis, including with respect to their holding period and tax basis in the common stock received.

If a Warrant expires without being exercised, a U.S. holder will recognize a capital loss in an amount equal to such holder's tax basis in the Warrant. Such loss will be long-term capital loss if, at the time of the expiration, the U.S. holder's holding period in such Warrant is more than one year. The deductibility of capital losses is subject to certain limitations.

Constructive Dividends on Warrants

As described in the section entitled "Dividend Policy," we do not anticipate declaring or paying dividends to holders of our common stock in the foreseeable future. However, if the exercise price of the Warrants is adjusted as a result of certain events affecting our common stock (or in certain circumstances, there is a failure to make adjustments), such adjustments may result in the deemed payment of a taxable dividend to a U.S. holder. U.S. holders should consult their tax advisors regarding the proper treatment of any adjustments to the exercise price of the Warrants.

We are currently required to report the amount of any deemed distributions on our website or to the IRS and to holders not exempt from reporting. The IRS proposed regulations addressing the amount and timing of deemed distributions, as well as, obligations of withholding agents and filing and notice obligations of issuers in respect of such deemed distributions. If adopted as proposed, the regulations would generally provide that (i) the amount of a deemed distribution is the excess of the fair market value of the right to acquire stock immediately after the exercise price adjustment over the fair market value of the right to acquire stock (after the exercise price adjustment) without the adjustment, (ii) the deemed distribution occurs at the earlier of the date the adjustment occurs under the terms of the instrument and the date of the actual distribution of cash or property that results in the deemed distribution and (iii) we are required to report the amount of any deemed distributions on our website or to the IRS and to all holders (including holders that would otherwise be exempt from reporting). The final regulations will be effective for deemed distributions occurring on or after the date of adoption, but holders and withholding agents may rely on them prior to that date under certain circumstances.

Distributions on Series D Preferred Stock and Common Stock

As described in the section entitled "Dividend Policy," we do not anticipate declaring or paying dividends to holders of our Series D Preferred Stock or common stock in the foreseeable future. However, if we do make distributions of cash or property on our Series D Preferred Stock or common stock, such distributions will constitute dividends to the extent paid out of our current or accumulated earnings and profits, as determined for U.S. federal income tax purposes. Dividends received by a corporate U.S. holder may be eligible for a dividends received deduction, subject to applicable limitations. Dividends received by certain non-corporate U.S. holders, including individuals, are generally taxed at the lower applicable capital gains rate provided certain holding period and other requirements are satisfied. Distributions in excess of our current and accumulated earnings and profits will constitute a return of capital and first be applied against and reduce a U.S. holder's adjusted tax basis in its Series D Preferred Stock or common stock, as the case may be, but not below zero. Any excess will be treated as capital gain and will

be treated as described below in the section relating to the sale or disposition of our common stock.

Sale, Exchange or Other Disposition of Series D Preferred Stock and Common Stock

Upon a sale, exchange, or other disposition of our Series D Preferred Stock (other than by conversion) or our common stock, a U.S. holder generally will recognize capital gain or loss equal to the difference between the amount realized (not including any amount attributable to declared and unpaid dividends, which will be taxable as described above to U.S. holders of record who have not previously included such dividends in income) and the U.S. holder's adjusted tax basis in our Series D Preferred Stock or our common stock. The U.S. holder's adjusted tax basis in our Series D Preferred Stock generally will equal its cost for the Series D Preferred stock, reduced by the amount of any cash distributions treated as a return of capital as described above. A U.S. holder's adjusted tax basis in our common stock generally will equal (i) its cost for the common stock (in the case of common stock acquired in this offering), (ii) the sum of (A) its tax basis in a Warrant and (B) the exercise price of the Warrant (in the case of common stock acquired upon exercise of the Warrant and as discussed above under "—Sale or Other Disposition, Exercise or Expiration of Warrants") or (iii) its initial tax basis in the common stock (in the case of common stock acquired upon conversion of Series D Preferred Stock and as discussed below under "—Conversion of the Series D Preferred Stock into Our Common Stock"), reduced by the amount of any cash distributions treated as a return of capital as described above. Such capital gain or loss generally will be long-term capital gain or loss if the U.S. holder's holding period for our Series D Preferred Stock or our common stock exceeded one year at the time of disposition (see the discussion below under "—Conversion of Our Series D Preferred Stock into Our Common Stock" regarding a U.S. holder's holding period for our common stock). Long-term capital gains recognized by certain non-corporate U.S. Holders, including individuals, generally are subject to reduced rates of taxation. The deductibility of capital losses is subject to limitations.

Conversion of Our Series D Preferred Stock into Our Common Stock

Generally, a U.S. holder will not recognize any gain or loss in respect of the receipt of our common stock upon the conversion of our Series D Preferred Stock. The adjusted tax basis of our common stock that a U.S. holder receives on conversion will equal the adjusted tax basis of the Series D Preferred Stock converted, and the holding period of such common stock received on conversion will include the period during which the U.S. holder held the Series D Preferred Stock prior to conversion.

In the event a U.S. holder's Series D Preferred Stock is converted pursuant to an election by such U.S. holder in the case of certain acquisitions or fundamental changes or pursuant to certain other transactions (including our consolidation or merger into another person), the tax treatment of such a conversion will depend upon the facts underlying the particular transaction triggering such a conversion. In this regard, it is possible that any related adjustments of the conversion rate would be treated as a constructive distribution to the U.S. holder as described below under "—Tax Consequences Applicable to U.S. Holders— Constructive Dividends on Series D Preferred Stock." U.S. holders should consult their tax advisors to determine the specific tax treatment of a conversion under such circumstances.

Constructive Dividends on Series D Preferred Stock

The conversion rate of our Series D Preferred Stock is subject to adjustment under certain circumstances, as described above under "Description of Securities—Series D Preferred Stock." Section 305(c) of the Code and Treasury regulations thereunder will treat a U.S. holder of our Series D Preferred Stock as having received a constructive distribution includable in such U.S. holder's income in the manner as described above under "—Tax Consequences Applicable to U.S. Holders — Distributions on Series D Preferred Stock and Common Stock," if and to the extent that certain adjustments in the conversion rate (or failures to make such an adjustment) increases the proportionate interest of such U.S. holder in our earnings and profits. For example, an increase in the conversion rate to reflect a taxable dividend to holders of our common stock or an increase in the conversion rate upon certain events as described above will generally give rise to a deemed taxable dividend to the holders of our Series D Preferred Stock to the extent of our current or accumulated earnings and profits. In certain other circumstances, an adjustment to the conversion rate of our Series D Preferred Stock or a failure to make such an adjustment could

potentially give rise to constructive distributions to U.S. holders of our common stock. Thus, under certain circumstances, U.S. holders may recognize income in the event of a constructive distribution even though they may not receive any cash or property. Certain adjustments to the conversion rate made pursuant to a bona fide reasonable adjustment formula which has the effect of preventing dilution in the interest of the U.S. holders of our Series D Preferred Stock will generally not be considered to result in a constructive distribution.

Information Reporting and Backup Withholding

A U.S. holder may be subject to information reporting and backup withholding when such holder receives dividend payments (including constructive dividends) or receives proceeds from the sale or other taxable disposition of Series D Preferred Stock, Warrants or shares of our common stock. Certain U.S. holders are exempt from backup withholding, including corporations and certain tax-exempt organizations. A U.S. holder will be subject to backup withholding if such holder is not otherwise exempt and such holder:

- fails to furnish the holder's taxpayer identification number, which for an individual is ordinarily his or her social security number;
- furnishes an incorrect taxpayer identification number;
- is notified by the IRS that the holder previously failed to properly report payments of interest or dividends; or
- fails to certify under penalties of perjury that the holder has furnished a correct taxpayer identification number and that the IRS has not notified the holder that the holder is subject to backup withholding.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a U.S. holder's U.S. federal income tax liability, provided the required information is timely furnished to the IRS. U.S. holders should consult their tax advisors regarding their qualification for an exemption from backup withholding and the procedures for obtaining such an exemption.

Tax Considerations Applicable to Non-U.S. Holders

For purposes of this discussion, a "non-U.S. holder" is a beneficial owner of Series D Preferred Shares, Warrants or shares of our common stock that is neither a U.S. holder nor an entity treated as a partnership for U.S. federal income tax purposes.

Exercise of Warrants

A non-U.S. holder generally will not be subject to U.S. federal income tax on the exercise of Warrants into shares of our common stock. However, if a cashless exercise of the Warrants results in a taxable exchange, as described in "— Tax Considerations Applicable to U.S. holders — Sale or Other Disposition, Exercise or Expiration of Warrants," the rules described below under "Sale or Other Disposition of Series D Preferred Stock, Common Stock or Warrants" would apply.

Constructive Dividends on Warrants

As described in the section entitled "Dividend Policy," we do not anticipate declaring or paying dividends to holders of our Series D Preferred Stock or common stock in the foreseeable future. However, if the exercise price is adjusted as a result of certain events affecting our common stock (or in certain circumstances, there is a failure to make adjustments), such adjustments may result in the deemed payment of a taxable dividend to a U.S. holder. Any resulting withholding tax attributable to deemed dividends may be collected from other amounts payable or

distributable to, or other assets of, the non-U.S. holder. Non-U.S. holders should consult their tax advisors regarding the proper treatment of any adjustments to the Warrants.

Distributions on Series D Preferred Stock and Common Stock

As described in the section entitled “Dividend Policy,” we do not anticipate declaring or paying dividends to holders of our Series D Preferred Stock or common stock in the foreseeable future. However, if we do make distributions of cash or property on our Series D Preferred Stock or common stock, such distributions will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Amounts not treated as dividends for U.S. federal income tax purposes will constitute a return of capital and first be applied against and reduce a non-U.S. holder’s adjusted tax basis in its Series D Preferred Stock or common stock, as the case may be, but not below zero. Any excess will be treated as capital gain and will be treated as described below in the section relating to the sale or disposition of our Series D Preferred Stock, our common stock or Warrants. Because we may not know the extent to which a distribution is a dividend for U.S. federal income tax purposes at the time it is made, for purposes of the withholding rules discussed below we or the applicable withholding agent may treat the entire distribution as a dividend.

Subject to the discussion below on backup withholding and foreign accounts, dividends paid to a non-U.S. holder of our Series D Preferred Stock or common stock that are not effectively connected with the non-U.S. holder’s conduct of a trade or business within the United States will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the dividends (or such lower rate specified by an applicable income tax treaty).

Non-U.S. holders will be entitled to a reduction in or an exemption from withholding on dividends as a result of either (a) an applicable income tax treaty or (b) the non-U.S. holder holding our Series D Preferred Stock or common stock in connection with the conduct of a trade or business within the United States and dividends being effectively connected with that trade or business. To claim such a reduction in or exemption from withholding, the non-U.S. holder must provide the applicable withholding agent with a properly executed (a) IRS Form W-8BEN or W-8BEN-E (or other applicable documentation) claiming an exemption from or reduction of the withholding tax under the benefit of an income tax treaty between the United States and the country in which the non-U.S. holder resides or is established, or (b) IRS Form W-8ECI stating that the dividends are not subject to withholding tax because they are effectively connected with the conduct by the non-U.S. holder of a trade or business within the United States, as may be applicable. These certifications must be provided to the applicable withholding agent prior to the payment of dividends and must be updated periodically. Non-U.S. holders that do not timely provide the applicable withholding agent with the required certification, but that qualify for a reduced rate under an applicable income tax treaty, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

If dividends paid to a non-U.S. holder are effectively connected with the non-U.S. holder’s conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the non-U.S. holder maintains a permanent establishment in the United States to which such dividends are attributable), then, although exempt from U.S. federal withholding tax (provided the non-U.S. holder provides appropriate certification, as described above), the non-U.S. holder will be subject to U.S. federal income tax on such dividends on a net income basis at the regular graduated U.S. federal income tax rates. In addition, a non-U.S. holder that is a corporation may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on its effectively connected earnings and profits for the taxable year that are attributable to such dividends, as adjusted for certain items. Non-U.S. holders should consult their tax advisors regarding their entitlement to benefits under any applicable income tax treaty.

Sale or Other Disposition of Series D Preferred Stock, Common Stock or Warrants

Subject to the discussions below on backup withholding and foreign accounts, a non-U.S. holder will not be subject to U.S. federal income tax on any gain realized upon the sale or other taxable disposition of our Series D

Preferred Stock, Warrants or our common stock unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the non-U.S. holder maintains a permanent establishment in the United States to which such gain is attributable);
- the non-U.S. holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition and certain other requirements are met; or
- our Series D Preferred Stock, Warrants or our common stock constitutes a U.S. real property interest, or USRPI, by reason of our status as a U.S. real property holding corporation, or USRPHC, for U.S. federal income tax purposes.

Gain described in the first bullet point above generally will be subject to U.S. federal income tax on a net income basis at the regular graduated rates. A Non-U.S. holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected gain, as adjusted for certain items.

Gain described in the second bullet point above will be subject to U.S. federal income tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on any gain derived from the disposition, which may be offset by U.S. source capital losses of the non-U.S. holder (even though the individual is not considered a resident

of the United States), provided the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses.

With respect to the third bullet point above, we believe we are not currently and do not anticipate becoming a USRPHC. Because the determination of whether we are a USRPHC depends on the fair market value of our USRPIs relative to the fair market value of our other business assets and our non-U.S. real property interests, however, there can be no assurance we are not a USRPHC or will not become one in the future.

Non-U.S. holders should consult their tax advisors regarding potentially applicable income tax treaties that may provide for different rules.

Conversion of Our Series D Preferred Stock into Our Common Stock

A non-U.S. holder generally will not recognize any gain or loss in respect of the receipt of our common stock upon the conversion of our Series D Preferred Stock.

Constructive Dividends on Series D Preferred Stock

As described above under “— Tax Consequences Applicable to U.S. Holders — Constructive Dividends on Series D Preferred Stock,” in certain circumstances, a non-U.S. holder will be deemed to receive a constructive distribution from us. Adjustments in the conversion rate (or failures to adjust the conversion rate) that increase the proportionate interest of a non-U.S. holder in our earnings and profits could result in deemed distributions to the non-U.S. holder that are treated as dividends for U.S. federal income tax purposes. Any constructive dividend deemed paid to a non-U.S. holder will be subject to U.S. federal income tax or withholding tax in the manner described above under “— Tax Consequences Applicable to Non-U.S. Holders — Distributions on Series D Preferred Stock and Common Stock.” It is possible that U.S. federal tax on the constructive dividend would be withheld, if applicable, from subsequent payments on the Series D Preferred Stock or our common stock.

Information Reporting and Backup Withholding

Subject to the discussion below on foreign accounts, a non-U.S. holder will not be subject to backup withholding with respect to distributions on our Series D Preferred Stock or common stock we make to the non-U.S. holder provided the applicable withholding agent does not have actual knowledge or reason to know such holder is a United States person and the holder certifies its non-U.S. status, such as by providing a valid IRS Form W-8BEN, W-8BEN-E or W-8ECI, or other applicable certification. However, information returns generally will be filed with the IRS in connection with any distributions (including deemed distributions) made on our Series D Preferred Stock, Warrants and our common stock to the non-U.S. holder regardless of whether any tax was actually withheld. Copies of these information returns may also be made available under the provisions of a specific treaty or agreement to the tax authorities of the country in which the non-U.S. holder resides or is established.

Information reporting and backup withholding may apply to the proceeds of a sale or other taxable disposition of our Series D Preferred Stock, Warrants or our common stock within the United States, and information reporting may (although backup withholding generally will not) apply to the proceeds of a sale or other taxable disposition of our Series D Preferred Stock, Warrants or our common stock outside the United States conducted through certain U.S.-related financial intermediaries, in each case, unless the beneficial owner certifies under penalty of perjury that it is a non-U.S. holder on IRS Form W-8BEN or W-8BEN-E, or other applicable form (and the payor does not have actual knowledge or reason to know that the beneficial owner is a U.S. person) or such owner otherwise establishes an exemption. Proceeds of a disposition of our Series D Preferred Stock, Warrants or our common stock conducted through a non-U.S. office of a non-U.S. broker generally will not be subject to backup withholding or information reporting.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a non-U.S. holder's U.S. federal income tax liability, provided the required information is timely furnished to the IRS.

Additional Withholding Tax on Payments Made to Foreign Accounts

Withholding taxes may be imposed under the Foreign Account Tax Compliance Act, or FATCA, on certain types of payments made to non-U.S. financial institutions and certain other non-U.S. entities. Specifically, a 30% withholding tax may be imposed on dividends (including deemed dividends) with respect to, or (subject to the proposed Treasury Regulations discussed below) gross proceeds from the sale or other disposition of, our Series D Preferred Stock, Warrants or our common stock paid to, a "foreign financial institution" or a "non-financial foreign entity" (each as defined in the Code), unless (1) the foreign financial institution undertakes certain diligence and reporting obligations, (2) the non-financial foreign entity either certifies it does not have any "substantial United States owners" (as defined in the Code) or furnishes identifying information regarding each substantial United States owner, or (3) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements in (1) above, it must enter into an agreement with the U.S. Department of the Treasury requiring, among other things, that it undertake to identify accounts held by certain "specified United States persons" or "United States-owned foreign entities" (each as defined in the Code), annually report certain information about such accounts, and withhold 30% on certain payments to non-compliant foreign financial institutions and certain other account holders. Foreign financial institutions located in jurisdictions that have an intergovernmental agreement with the United States governing FATCA may be subject to different rules.

Under the applicable Treasury Regulations and administrative guidance, withholding under FATCA generally applies to payments of dividends (including deemed dividends). While withholding under FATCA would have applied also to payments of gross proceeds from the sale or other disposition of our Series D Preferred Stock, Warrants or our common stock on or after January 1, 2019, recently proposed Treasury Regulations eliminate FATCA withholding on payments of gross proceeds entirely. Taxpayers generally may rely on these proposed Treasury Regulations until final Treasury Regulations are issued. Because we may not know the extent to which a distribution is a dividend for U.S. federal income tax purposes at the time it is made, for purposes of these withholding rules we or the applicable withholding agent may treat the entire distribution as a dividend. Prospective investors should consult their tax advisors regarding the potential application of these withholding provisions.

EXPERTS

The consolidated financial statements and schedule as of and for the years ended December 31, 2017 and 2016, incorporated by reference in this prospectus and in the registration statement have been so incorporated in reliance on the report of BDO USA, LLP, an independent registered public accounting firm (the report on the consolidated financial statements and schedule contains an explanatory paragraph regarding the Company's ability to continue as a going concern), incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

LEGAL MATTERS

The validity of the securities offered hereby will be passed upon for us by Latham & Watkins LLP, San Diego, California. The underwriter is being represented by .

WHERE YOU CAN FIND MORE INFORMATION

We have filed a registration statement on Form S-1 with the SEC under the Securities Act of 1933, as amended. This prospectus is part of the registration statement but the registration statement includes additional information and exhibits. We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy the registration statement and any document we file with the SEC at the public reference room 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 room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a web site that contains reports, proxy and information statements and other information regarding companies, such as ours, that file documents electronically with the SEC. The website address is www.sec.gov. The information on the SEC's website is not part of this prospectus, and any references to this website or any other website are inactive textual references only.

INCORPORATION BY REFERENCE

The SEC permits us to "incorporate by reference" the information contained in documents we have filed with the SEC, which means that we can disclose important information to you by referring you to those documents rather than by including them in this prospectus. Information that is incorporated by reference is considered to be part of this prospectus and you should read it with the same care that you read this prospectus. We have filed with the SEC, and incorporate by reference in this prospectus:

- our Annual Report on Form 10-K for the year ended December 31, 2017, filed on March 9, 2018;
- our Quarterly Report on Form 10-Q for the quarters ended March 31, 2018, June 30, 2018 and September 30, 2018, filed on May 11, 2018, August 14, 2018 and November 14, 2018, respectively;
- our Definitive Proxy Statement on Schedule 14A (other than information furnished rather than filed), filed on April 6, 2018;
- our Current Reports on Form 8-K filed on January 29, 2018, February 9, 2018, February 23, 2018, March 7, 2018, March 16, 2018, May 18, 2018, May 23, 2018, June 1, 2018, June 11, 2018, June 12, 2018, June 20, 2018, July 13, 2018, July 25, 2018, August 31, 2018, September 4, 2018, September 21, 2018, January 2, 2019 and February 1, 2019; and
- 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) and any amendment or report filed with the SEC for the purpose of updating the description.

Any statement contained in any document incorporated by reference herein will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or any additional prospectus supplements modifies or supersedes such statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

All reports and other documents we subsequently file pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of this Offering, including all such documents we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement, but excluding any information furnished to, rather than filed with, the SEC, will also be incorporated by reference into this prospectus and deemed to be part of this prospectus from the date of the filing of such reports and documents.

We will provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon written or oral request, a copy of any or all documents that are incorporated by reference into this prospectus, but not delivered with the prospectus, other than exhibits to such documents unless such exhibits are specifically incorporated by reference into the documents that this prospectus incorporates. You should direct written requests to: Cytori Therapeutics, Inc., 3020 Callan Road, San Diego, CA 92121, Attn: Investor Relations, or you may call us at (858) 458-0900.

PROSPECTUS

**Class A Units consisting of common stock and warrants and
Class B Units consisting of shares of Series D preferred stock and warrants
(and shares of common stock underlying shares of Series D preferred stock and warrants)**

Book-runner

, 2019

Information Not Required In Prospectus

Item 13. Other Expenses of Issuance and Distribution.

The following is a statement of estimated expenses in connection with the issuance and distribution of the securities being registered, excluding underwriting fees. All expenses incurred with respect to the registration of the common stock will be borne by us. All amounts are estimates except the SEC registration fee and the FINRA filing fee.

	Amount to be Paid
SEC Registration Fee	\$ 1,212
FINRA Filing Fee	2,000
Printing Expenses	*
Legal Fees and Expenses	*
Accounting Fees and Expenses	*
Miscellaneous Expenses	*
Total	\$ *

* To be provided by amendment.

Item 14. 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.

Item 15. Recent Sales of Unregistered Securities.

The following is a summary of all securities that we have sold within the past three years without registration under the Securities Act of 1933, as amended (the "Securities Act").

- On December 22, 2016, we issued 12,750 shares of common stock to Lincoln Park Capital Fund, LLC as an initial fee for its commitment to purchase shares of our common stock pursuant to the Purchase Agreement dated December 22, 2016 between us and Lincoln Park Capital Fund, LLC, and from April 2017 through October 2017, we issued 189,403 shares of common stock to Lincoln Park Capital Fund, LLC at a weighted average price per share of \$9.18 for aggregate gross consideration of \$1.7 million pursuant to such Purchase Agreement. The shares were issued in reliance on an exemption from registration under Section 4(a)(2) of the Securities Act.
- On February 15, 2017, pursuant to the terms and conditions of an Asset Purchase Agreement with Azaya Therapeutics, Inc., or Azaya, we issued 117,325 shares of common stock to Azaya, 29,331 of which were deposited into a 15-month escrow. The shares were issued in reliance on an exemption from registration under Section 4(a)(2) of the Securities Act.
- On April 17, 2017 and May 31, 2017, pursuant to the terms and conditions of an Underwriting Agreement with Maxim Group LLC, or Maxim, we issued warrants to purchase 8,600 shares and 84,900 shares, respectively, of common stock to Maxim. The shares were issued in reliance on an exemption from registration under Section 4(a)(2) of the Securities Act.
- From January 2018 through the date hereof, we issued 640,069 shares of common stock to Lincoln Park Capital Fund, LLC at a weighted average price per share of \$0.42 for aggregate gross consideration of \$0.3 million pursuant to the Purchase Agreement dated September 21, 2018 between us and Lincoln Park Capital Fund, LLC. The shares were issued in reliance on an exemption from registration under Section 4(a)(2) of the Securities Act.

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits

The exhibits to the registration statement are listed in the Exhibit Index to this registration statement and are incorporated herein by reference.

(b) Financial statement schedules

All schedules have been omitted because either they are not required, are not applicable or the information is otherwise set forth in the financial statements and related notes thereto.

Item 17. Undertakings.

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 of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the 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 the registration statement. Notwithstanding the foregoing, any increase or decrease in 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 prospectus filed with the Securities and Exchange 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 offering 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 (1)(i), (1)(ii) and (1)(iii) above 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 Securities and Exchange Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, 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.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) That for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(6) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) 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.

(7) The undersigned registrant hereby undertakes to supplement the prospectus, after the expiration of the subscription period, to set forth the results of the subscription offer, the transactions by the underwriters during the subscription period, the amount of unsubscribed securities to be purchased by the underwriters, and the terms of any subsequent reoffering thereof. If any public offering by the underwriters is to be made on terms differing from those set forth on the cover page of the prospectus, a post-effective amendment will be filed to set forth the terms of such offering.

(8) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to any charter provision, by law or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than 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.

(9) The undersigned registrant hereby undertakes that:

(i) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective; and

(ii) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus 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.

EXHIBIT INDEX
CYTORI THERAPEUTICS, INC.

Exhibit Number	Exhibit Title	Filed Herewith	Incorporated by Reference		
			Form	File No.	Date Filed
1.1*	Underwriting Agreement, dated , 2019, between Cytori Therapeutics, Inc. and .				
3.1	Composite Certificate of Incorporation.		10-K	001-34375 Exhibit 3.1	03/11/2016
3.2	Amended and Restated Bylaws of Cytori Therapeutics, Inc.		10-Q	000-32501 Exhibit 3.2	08/14/2003
3.3	Amendment to Amended and Restated Bylaws of Cytori Therapeutics, Inc.		8-K	001-34375 Exhibit 3.1	05/06/2014
3.4	Certificate of Designation of Preferences, Rights and Limitations of Series A 3.6% Convertible Preferred Stock.		8-K	001-34375 Exhibit 3.1	10/08/2014
3.5	Certificate of Amendment to Amended and Restated Certificate of Incorporation, as amended.		8-K	001-34375 Exhibit 3.1	05/10/2016
3.6	Certificate of Designation of Preferences, Rights and Limitations of Series B Convertible Preferred Stock.		8-K	001-34375 Exhibit 3.1	11/28/2017
3.7	Certificate of Amendment to Amended and Restated Certificate of Incorporation, as amended.		8-K	001-34375 Exhibit 3.1	05/23/2018
3.8	Certificate of Designation of Preferences, Rights and Limitations of Series C Convertible Preferred Stock.		8-K	001-34375 Exhibit 3.1	07/25/2018
3.9*	Certificate of Designation of Preferences, Rights and Limitations of Series D Convertible Preferred Stock.				
4.1	Warrant to Purchase Common Stock issued by Cytori Therapeutics, Inc. on October 14, 2008 in favor of Silicon Valley Bank, pursuant to the Loan and Security Agreement dated October 14, 2008.		10-K	000-32501 Exhibit 10.62	03/06/2009
4.2	Warrant to Purchase Common Stock issued by Cytori Therapeutics, Inc. on June 11, 2010 in favor of GE Capital Equity Investments, Inc., pursuant to the Amended and Restated Loan and Security Agreement dated June 11, 2010.		8-K	001-34375 Exhibit 10.73	06/17/2010
4.3	Warrant to Purchase Common Stock issued by Cytori Therapeutics, Inc. on June 11, 2010 in favor of Silicon Valley Bank, pursuant to the Amended and Restated Loan and Security Agreement dated June 11, 2010.		8-K	001-34375 Exhibit 10.74	06/17/2010

4.4	Warrant to Purchase Common Stock issued by Cytori Therapeutics, Inc. on June 11, 2010 in favor of Oxford Financial Corporation, pursuant to the Amended and Restated Loan and Security Agreement dated June 11, 2010.		8-K	001-34375 Exhibit 10.75	06/17/2010
4.5	Warrant to Purchase Common Stock issued by Cytori Therapeutics, Inc. on September 9, 2011 in favor of GE Capital Equity Investments, Inc., pursuant to the Amended and Restated Loan and Security Agreement dated September 9, 2011.		8-K	001-34375 Exhibit 10.84	09/15/2011
4.6	Warrant to Purchase Common Stock issued by Cytori Therapeutics, Inc. on September 9, 2011 in favor of Silicon Valley Bank, pursuant to the Amended and Restated Loan and Security Agreement dated September 9, 2011.		8-K	001-34375 Exhibit 10.85	09/15/2011
4.7	Warrant to Purchase Common Stock issued by Cytori Therapeutics, Inc. on September 9, 2011 in favor of Oxford Financial Corporation, pursuant to the Amended and Restated Loan and Security Agreement dated September 9, 2011.		8-K	001-34375 Exhibit 10.86	09/15/2011
4.8	Warrant to Purchase Common Stock issued by Cytori Therapeutics, Inc. on September 9, 2011 in favor of Oxford Financial Corporation, pursuant to the Amended and Restated Loan and Security Agreement dated September 9, 2011.		8-K	001-34375 Exhibit 10.87	09/15/2011
4.9	Warrant to Purchase Common Stock issued by Cytori Therapeutics, Inc. on June 28, 2013 in favor of Oxford Finance LLC pursuant to the Loan and Security Agreement dated June 28, 2013.		10-Q	001-34375 Exhibit 4.17	08/09/2013
4.10	Warrant to Purchase Common Stock issued by Cytori Therapeutics, Inc. on June 28, 2013 in favor of Oxford Finance LLC pursuant to the Loan and Security Agreement dated June 28, 2013.		10-Q	001-34375 Exhibit 4.18	08/09/2013
4.11	Warrant to Purchase Common Stock issued by Cytori Therapeutics, Inc. on June 28, 2013 in favor of Oxford Finance LLC pursuant to the Loan and Security Agreement dated June 28, 2013.		10-Q	001-34375 Exhibit 4.19	08/09/2013
4.12	Warrant to Purchase Common Stock issued by Cytori Therapeutics, Inc. on June 28, 2013 in favor of Oxford Finance LLC pursuant to the Loan and Security Agreement dated June 28, 2013.		10-Q	001-34375 Exhibit 4.20	08/09/2013
4.13	Warrant to Purchase Common Stock issued by Cytori Therapeutics, Inc. on June 28, 2013 in favor of Silicon Valley Bank pursuant to the Loan and Security Agreement dated June 28, 2013.		10-Q	001-34375 Exhibit 4.21	08/09/2013

4.14	Form of Warrant to Purchase Common Stock for Investors in the Units issued in May 2014.		8-K	001-34375 Exhibit 4.1	05/30/2014
4.15	Form of Warrant to Purchase Common Stock for Placement Agent of the Units issued in May 2014.		8-K	001-34375 Exhibit 4.2	05/30/2014
4.16	Form of Amendment to Warrant to Purchase Common Stock.		8-K	001-34375 Exhibit 4.1	09/08/2014
4.17	Form of Warrant to Purchase Common Stock.		8-K	001-34375 Exhibit 4.2	09/08/2014
4.18	Form of Warrant for Purchasers of the Units issued in October 2014.		8-K	001-34375 Exhibit 4.1	10/08/2014
4.19	Form of Initial Warrant to Purchase Common Stock.		8-K	001-34375 Exhibit 4.1	05/05/2015
4.20	Form of Additional Warrant to Purchase Common Stock.		8-K	001-34375 Exhibit 4.2	05/05/2015
4.21	Form of Pre-Funded Warrant to Purchase Common Stock.		8-K	001-34375 Exhibit 4.3	05/05/2015
4.22	Amendment to Common Stock Purchase Warrant.		10-K	001-34375 Exhibit 4.23	03/11/2016
4.23	Amendment to Series A-1 Warrant to Purchase Common Stock.		10-K	001-34375 Exhibit 4.24	03/11/2016
4.24	Amendment to Series A-2 Warrant to Purchase Common Stock.		10-K	001-34375 Exhibit 4.25	03/11/2016
4.25	Form of Non-Transferable Subscription Rights Certificate issued in 2016.		S-1/A	333-210628 Exhibit 4.26	05/11/2016
4.26	Form of Series R Warrant.		S-1/A	333-210628 Exhibit 4.27	05/11/2016
4.27	Form of Series S Warrant.		S-1/A	333-219967 Exhibit 4.27	10/03/2017
4.28	Form of Series T Warrant.		POS AM	333-224502 Exhibit 4.28	07/09/2018
4.29	Form of Series R Warrant Agent Agreement between Cytori Therapeutics, Inc. and Broadridge Corporate Issuer Solutions, Inc.		S-1/A	333-210628 Exhibit 4.28	05/11/2016
4.30	Form of Warrant by and between Cytori Therapeutics, Inc. and Maxim Group LLC.		8-K	001-34375 Exhibit 4.1	04/12/2017

4.31	Form of Restated Warrant by and between Cytori Therapeutics, Inc. and Broadridge Corporate Issuer Solutions, Inc.		10-Q	001-34375 Exhibit 4.2	08/11/2017
4.32	Form of Non-Transferable Subscription Rights Certificate.		S-1/A	333-219967 Exhibit 4.31	10/03/2017
4.33	Form of Series S Warrant Agent Agreement between Cytori Therapeutics, Inc. and Broadridge Corporate Issuer Solutions, Inc.		S-1/A	333-219967 Exhibit 4.32	10/03/2017
4.34	Form of Common Stock Certificate.		10-K	001-34375 Exhibit 4.33	03/09/2018
4.35	Form of Non-Transferable Subscription Rights Certificate.		POS AM	333-224502 Exhibit 4.35	07/09/2018
4.36	Form of Series T Warrant Agent Agreement between Cytori Therapeutics, Inc. and Broadridge Corporate Issuer Solutions, Inc.		POS AM	333-224502 Exhibit 4.36	07/09/2018
4.37*	Form of Series U Warrant.				
5.1*	Opinion of Latham & Watkins LLP.				
10.1#	Amended and Restated 1997 Stock Option and Stock Purchase Plan.		10-12G	000-32501 Exhibit 10.1	03/30/2001
10.2#	2004 Equity Incentive Plan of Cytori Therapeutics, Inc.		8-K	000-32501 Exhibit 10.1	08/27/2004
10.3#	Form of Options Exercise and Stock Purchase Agreement Relating to the 2004 Equity Incentive Plan.		10-Q	000-32501 Exhibit 10.23	11/15/2004
10.4#	Form of Notice of Stock Options Grant Relating to the 2004 Equity Incentive Plan.		10-Q	000-32501 Exhibit 10.24	11/15/2004
10.5+	License & Royalty Agreement, effective August 23, 2007, by and between Olympus-Cytori, Inc. and Cytori Therapeutics, Inc.		10-Q	000-32501 Exhibit 10.49	11/13/2007
10.6	Common Stock Purchase Agreement, dated February 8, 2008, by and between Green Hospital Supply, Inc. and Cytori Therapeutics, Inc.		8-K	000-32501 Exhibit 10.51	02/19/2008
10.7	Amendment No. 1, dated February 29, 2008, to Common Stock Purchase Agreement, dated February 8, 2008, by and between Green Hospital Supply, Inc. and Cytori Therapeutics, Inc.		8-K	000-32501 Exhibit 10.51.1	2/29/2008
10.8	Lease Agreement entered into on April 2, 2010, between HCP Callan Rd, LLC. and Cytori Therapeutics, Inc.		10-Q	001-34375 Exhibit 10.69	05/06/2010

10.9	Common Stock Purchase Agreement, dated December 6, 2010, by and among Cytori Therapeutics, Inc. and Astellas Pharma Inc.		8-K	001-34375 Exhibit 10.76	12/09/2010
10.10#	Form of Notice and Restricted Stock Award Agreement for grants of performance-based restricted stock awards under the 2004 Equity Incentive Plan.		8-K	001-34375 Exhibit 10.1	03/04/2011
10.11	First Amendment to Lease Agreement entered into on November 4, 2011, between HCP Callan Rd, LLC. and Cytori Therapeutics, Inc.		10-Q	001-34375 Exhibit 10.88	11/08/2011
10.12#	2011 Employee Stock Purchase Plan.		DEF 14A	001-34375 Appendix A	05/02/2011
10.13	Contract HHSO100201200008C dated September 27, 2012, by and between Cytori Therapeutics, Inc. and the U.S. Department of Health and Human Services Biomedical Advanced Research and Development Authority.		S-1/A	333-219967 Exhibit 10.14	10/03/2017
10.14	Joint Venture Termination Agreement dated May 8, 2013 by and between Cytori Therapeutics, Inc. and Olympus Corporation.		10-Q	001-34375 Exhibit 10.91	05/10/2013
10.15+	Puregraft Sale-License-Supply Agreement, dated July 30, 2013, by and between Cytori Therapeutics, Inc. and Bimini Technologies LLC.		10-Q/A	001-34375 Exhibit 10.93	11/12/2013
10.16+	Amended and Restated License and Supply Agreement dated January 30, 2014, by and between Cytori Therapeutics, Inc. and Lorem Vascular Pty. Ltd.		8-K	001-34375 Exhibit 10.94	02/04/2014
10.17	Sales Agreement, dated May 12, 2014, by and between Cytori Therapeutics, Inc. and Cowen and Company, LLC.		8-K	001-34375 Exhibit 10.1	05/12/2014
10.18	Contract HHSO100201200008C Amendment No. 1 dated August 18, 2014, by and between Cytori Therapeutics, Inc. and the U.S. Department of Health and Human Services Biomedical Advanced Research and Development Authority.		8-K	001-34375 Exhibit 10.99	08/19/2014
10.19	Form of Securities Purchase Agreement by and between Cytori Therapeutics, Inc. and the Purchasers (as defined therein), dated as of October 8, 2014.		8-K	001-34375 Exhibit 10.1	10/08/2014
10.20	Amendment of Solicitation/Amendment of Contract, effective December 17, 2014, by and between ASPR-BARDA and Cytori Therapeutics, Inc.		10-K	001-34375 Exhibit 10.21	03/24/2017
10.21	Amendment of Solicitation/Modification of Contract, effective January 5, 2015, by and between ASPR-BARDA and Cytori Therapeutics, Inc.		10-K	001-34375 Exhibit 10.22	03/24/2017

10.22	Amendment One to the Securities Purchase Agreement, dated March 16, 2015, between Cytori Therapeutics, Inc. and certain institutional investors.		10-Q	001-34375 Exhibit 10.1	05/11/2015
10.23	Form of Securities Purchase Agreement, dated May 5, 2015, by and among Cytori Therapeutics, Inc. and the investors named therein.		8-K	001-34375 Exhibit 10.1	05/05/2015
10.24	Placement Agency Agreement, dated May 5, 2015, by and between Cytori Therapeutics, Inc. and Mizuho Securities USA Inc.		8-K	001-34375 Exhibit 10.2	05/05/2015
10.25	Amendment One to Joint Venture Termination Agreement, dated April 30, 2015, by and between Cytori Therapeutics, Inc. and Olympus Corporation.		8-K	001-34375 Exhibit 10.1	05/05/2015
10.26	Loan and Security Agreement, dated May 29, 2015, by and between Cytori Therapeutics, Inc. and Oxford Finance, LLC.		10-Q	001-34375 Exhibit 10.4	08/10/2015
10.27	First Amendment to Loan and Security Agreement, dated September 20, 2017, by and between Cytori Therapeutics, Inc. and Oxford Finance, LLC.		S-1/A	333-219967 Exhibit 10.45	10/03/2017
10.28	Amendment One to the Securities Purchase Agreement between Cytori Therapeutics, Inc. and certain institutional investors dated May 5, 2015.		10-K	001-34375 Exhibit 10.111	03/11/2016
10.29#	2015 New Employee Incentive Plan.		8-K	001-34375 Exhibit 10.1	01/05/2016
10.30#	Form of Agreement for Acceleration and/or Severance.		10-K	001-34375 Exhibit 10.113	03/11/2016
10.31#	Form of Stock Option Agreement under the New Employee Incentive Plan.		S-8	333-210211 Exhibit 99.4	03/15/2016
10.32#	Form of Notice of Grant of Stock Option under the 2015 New Employee Incentive Plan.		S-8	333-210211 Exhibit 99.5	03/15/2016
10.33#	2014 Equity Incentive Plan of Cytori Therapeutics, Inc., as amended and restated.		DEF 14A	001-34375 Appendix A	04/06/2018
10.34	Amendment Two to Joint Venture Termination Agreement, dated January 8, 2016.		10-Q	001-34375 Exhibit 10.4	05/10/2016
10.35	Amendment of Solicitation/Amendment of Contract, effective April 1, 2016, by and between ASPR-BARDA and Cytori Therapeutics, Inc.		10-Q	001-34375 Exhibit 10.1	08/05/2016
10.36	Amendment of Solicitation/Amendment of Contract, effective September 9, 2016, by and between ASPR-BARDA and Cytori Therapeutics, Inc.		10-Q	001-34375 Exhibit 10.1	11/09/2016

10.37	Purchase Agreement between Cytori Therapeutics, Inc. and Lincoln Park Capital Fund, LLC, dated December 22, 2016.		8-K	001-34375 Exhibit 10.1	12/29/2016
10.38	Registration Rights Agreement between Cytori Therapeutics, Inc. and Lincoln Park Capital Fund, LLC, dated December 22, 2016.		8-K	001-34375 Exhibit 10.2	12/29/2016
10.39#	Third Amendment to the Cytori Therapeutics, Inc. 2014 Equity Incentive Plan, dated January 26, 2017.		10-K	001-34375 Exhibit 10.39	03/24/2017
10.40+	Asset Purchase Agreement by and between Cytori Therapeutics, Inc. and Azaya Therapeutics, Inc., effective January 16, 2017.		10-K	001-34375 Exhibit 10.40	03/24/2017
10.41	Lease Agreement, dated February 27, 2017, by and between 6262 Lusk Investors LLC and Cytori Therapeutics, Inc.		10-K	001-34375 Exhibit 10.41	03/24/2017
10.42	First Amendment to Lease Agreement, dated July 27, 2017, by and between 6262 Lusk Investors LLC and Cytori Therapeutics, Inc.		10-K	001-34375 Exhibit 10.43	03/09/2018
10.43	Second Amendment to Lease Agreement, dated September 7, 2017, by and between 6262 Lusk Investors LLC and Cytori Therapeutics, Inc.		10-K	001-34375 Exhibit 10.44	03/09/2018
10.44	Termination of Lease Agreement, dated February 21, 2018, by and between 6262 Lusk Investors LLC and Cytori Therapeutics, Inc.		8-K	001-34375 Exhibit 10.1	02/23/2018
10.45#	First Amendment to the Cytori Therapeutics, Inc. 2015 New Employee Incentive Plan, dated Jan. 26, 2017.		10-K	001-34375 Exhibit 10.42	03/24/2017
10.46	Sixth Amendment of Solicitation/Modification of Contract, effective April 14, 2017, by and between ASPR-BARDA and Cytori Therapeutics, Inc.		10-Q	001-34375 Exhibit 10.1	05/12/2017
10.47+	Seventh Amendment of Solicitation/Modification of Contract, effective May 19, 2017, by and between ASPR-BARDA and Cytori Therapeutics, Inc.		10-Q	001-34375 Exhibit 10.3	08/11/2017
10.48+	Eighth Amendment of Solicitation/Modification of Contract, effective May 23, 2017, by and between ASPR-BARDA and Cytori Therapeutics, Inc.		10-Q	001-34375 Exhibit 10.4	08/11/2017
10.49	Sales Agreement, dated June 1, 2018, by and between Cytori Therapeutics, Inc. and B. Riley FBR, Inc.		8-K	001-34375 Exhibit 10.1	06/01/2018
10.50	Second Amendment to Loan and Security Agreement, dated June 19, 2018, by and between Cytori Therapeutics, Inc. and Oxford Finance, LLC.		10-Q	001-34375 Exhibit 10.3	08/14/2018

10.51	Third Amendment to Loan and Security Agreement, dated August 31, 2018, by and between Cytori Therapeutics, Inc. and Oxford Finance, LLC.		S-1	333-227485 Exhibit 10.51	09/21/2018
10.52	Fourth Amendment to Loan and Security Agreement dated December 31, 2018, by and between Cytori Therapeutics, Inc. and Oxford Finance, LLC.	X			
10.53	Purchase Agreement between Cytori Therapeutics, Inc. and Lincoln Park Capital Fund, LLC, dated September 21, 2018.		8-K	001-34375 Exhibit 10.1	09/21/2018
10.54	Registration Rights Agreement between Cytori Therapeutics, Inc. and Lincoln Park Capital Fund, LLC, dated September 21, 2018.		8-K	001-34375 Exhibit 10.2	09/21/2018
23.1	Consent of BDO USA, LLP, Independent Registered Public Accounting Firm.	X			
23.2*	Consent of Latham & Watkins LLP (included in Exhibit 5.1).				
24.1	Power of Attorney (included on signature page).	X			

* To be filed by amendment.

Indicates management contract or compensatory plan or arrangement.

+ Confidential treatment has been granted with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.

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 February 1, 2019.

CYTORI THERAPEUTICS, INC.

By: /s/ Marc H. Hedrick, M.D.
Marc H. Hedrick, M.D.
President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Marc H. Hedrick and Tiago Girão as his true and lawful attorneys-in-fact and agents, with full powers of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments to this Registration Statement (including post-effective amendments and any related registration statements filed pursuant to Rule 462 and otherwise), and to file the same with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents 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 for all intents and purposes as he might or could do in person, hereby ratifying and confirming that said attorney-in-fact and agent, or any substitute or resubstitute, may lawfully do or cause to be done by virtue hereof.

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.

<u>SIGNATURE</u>	<u>TITLE</u>	<u>DATE</u>
<u>/s/ Richard J. Hawkins</u> Richard J. Hawkins	Chairman of the Board	February 1, 2019
<u>/s/ Marc H. Hedrick, M.D.</u> Marc H. Hedrick, M.D.	President & Chief Executive Officer (Principal Executive Officer)	February 1, 2019
<u>/s/ Tiago Girão</u> Tiago Girão	Chief Financial Officer and SVP of Operations (Principal Financial and Accounting Officer)	February 1, 2019
<u>/s/ Gregg A. Lapointe</u> Gregg A. Lapointe	Director	February 1, 2019
<u>/s/ Ronald A. Martell</u> Ronald A. Martell	Director	February 1, 2019

FOURTH AMENDMENT TO LOAN AND SECURITY AGREEMENT

THIS FOURTH AMENDMENT to Loan and Security Agreement (this “**Amendment**”) is made effective as of December 31, 2018 (the “**Amendment Date**”) and made, by and among OXFORD FINANCE LLC, a Delaware limited liability company with an office located at 133 North Fairfax Street, Alexandria, Virginia 22314 (in its individual capacity, “**Oxford**”; and in its capacity as Collateral Agent, “**Collateral Agent**”), the Lenders listed on Schedule 1.1 thereof from time to time including Oxford in its capacity as a Lender (each a “**Lender**” and collectively, the “**Lenders**”) and CYTORI THERAPEUTICS, INC., a Delaware corporation with offices located at 3020 Callan Road, San Diego, CA 92121 (“**Borrower**”).

WHEREAS, Collateral Agent, Borrower and Lenders party thereto from time to time have entered into that certain Loan and Security Agreement, dated as of May 29, 2015 (as amended, supplemented or otherwise modified from time to time, the “**Loan Agreement**”) pursuant to which Lenders have provided to Borrower certain loans in accordance with the terms and conditions thereof; and

WHEREAS, Borrower, Lenders and Collateral Agent desire to amend certain provisions of the Loan Agreement as provided herein and subject to the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the promises, covenants and agreements contained herein, and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, Borrower, Lenders and Collateral Agent hereby agree as follows:

1. Capitalized terms used herein but not otherwise defined shall have the respective meanings given to them in the Loan Agreement.
2. Section 2.2(b) of the Loan Agreement is hereby amended and restated in its entirety as follows:

(b) Repayment. Borrower shall make monthly payments of interest only commencing on the first (1st) Payment Date following the Funding Date of each Term Loan, and continuing on the Payment Date of each successive month thereafter through and including the Payment Date immediately preceding the Amortization Date. Borrower agrees to pay, on the Funding Date of each Term Loan, any initial partial monthly interest payment otherwise due for the period between the Funding Date of such Term Loan and the first Payment Date thereof. Commencing on the Amortization Date, and continuing on the Payment Date of each month thereafter, Borrower shall make consecutive monthly payments of principal (except that no payments of principal shall be made on the Payment Dates from September 1, 2017 through December 1, 2017; provided, further, that upon the occurrence of the I/O Extension Event payments of principal shall also not be made on the Payment Dates from January 1, 2018 through August 1, 2018) and applicable interest (regardless of whether or not on any given Payment Date a principal payment is due hereunder), in arrears, to each Lender, as calculated by Collateral Agent (which calculations shall be deemed correct absent manifest error) based upon: (1) the amount of such Lender’s Term Loan, (2) the effective

rate of interest, as determined in Section 2.3(a), and (3) a repayment schedule equal to forty-two (42) months (except that as set forth above, no payments of principal shall be made on the Payment Dates from September 1, 2017 through August 1, 2018; provided, further, that payments of principal shall also not be made on the Payment Dates from September 1, 2018 through March 1, 2019). The principal payments due hereunder shall be as set forth on the amortization table (as amended from time to time) attached to the Disbursement Letter entered into on the Effective Date. The Final Payment and all unpaid principal and accrued and unpaid interest with respect to each Term Loan are due and payable in full on the Maturity Date. Each Term Loan may only be prepaid in accordance with Sections 2.2(c) and 2.2(d).

3. Section 2.2(d) of the Loan Agreement is hereby amended and restated as follows:

(d) **Permitted Prepayment of Term Loan.** Borrower shall have the option to prepay all, but, subject to the second paragraph of this Section 2.2(d), not less than all, of the Term Loan advanced by the Lenders under this Agreement, provided Borrower, subject to the second paragraph of this Section 2.2(d), (i) provides written notice to Collateral Agent of its election to prepay the Term Loan at least fifteen (15) days prior to such prepayment, and (ii) pays to the Lenders on the date of such prepayment, payable to each Lender in accordance with its respective Pro Rata Share, an amount equal to the sum of (A) all outstanding principal of the Term Loan plus accrued and unpaid interest thereon through the prepayment date, (B) the Final Payment, (C) the Prepayment Fee, plus (D) all other Obligations that are due and payable, including Lenders' Expenses and interest at the Default Rate with respect to any past due amounts.

Notwithstanding anything herein to the contrary, Borrower shall promptly pay to each Lender (in accordance with its Pro Rata Share) (i) 75% of all proceeds received by Borrower from the issuance and sale by Borrower of its unsecured subordinated convertible debt, (ii) 75% of all proceeds received by Borrower in connection with a joint venture, collaboration or other partnering transaction, (iii) 75% of all proceeds received by Borrower in connection with any licenses, (iv) 75% of all proceeds received by Borrower in the form of dividends (other than non-cash dividends received from wholly owned Subsidiaries of Borrower) and (v) all net proceeds received by Borrower from sale or transfer of any assets of Borrower (provided; nothing in this Section 2.2(d) is a consent to or meant to be construed as a consent to any disposition of any assets of Borrower not otherwise permitted by this Agreement). For the purposes of clarification, proceeds received from sale and issuance by Borrower of its equity securities (which are not in the form of convertible debt) shall not be subject to the payment obligations of Borrower under the immediately preceding sentence. All such payments shall be applied to (A) payment of a portion of the outstanding principal of the Term Loans plus all accrued and unpaid interest thereon outstanding on such portion being prepaid, (B) the applicable Final Payment with respect to the portion of such Term Loans being prepaid, and (C) the applicable Prepayment Fee with respect to the portion of such Term Loans being prepaid. For the purposes of clarity, any partial prepayment of Term Loans hereunder shall be applied pro-rata to all outstanding amounts under each Term Loan, and shall be applied

pro-rata within each Term Loan tranche to reduce amortization payments under Section 2.2(b) on a pro-rata basis.

4. Section 2.5 of the Loan Agreement is hereby amended by deleting the word “and” immediately following Section 2.5(f), replacing “.” at the end of Section 2.5(g) with “; and” and adding Section 2.5(h) thereto as follows:

(h) **Fourth Amendment Fee.** A fully earned and non-refundable fourth amendment fee in the amount of Three Hundred Fifty Thousand Dollars (\$350,000.00) which shall become due and payable upon the earlier of: (i) the Maturity Date, (ii) the acceleration of any Term Loan, or (iii) the prepayment of a Term Loan pursuant to Section 2.2(c) or (d).

5. Section 6.10 of the Loan Agreement is hereby amended and restated in its entirety as follows:

Borrower shall at all times maintain unrestricted cash and/or Cash Equivalents in Collateral Accounts subject to Control Agreements in favor of Collateral Agent in a minimum aggregate amount of Two Million Dollars (\$2,000,000.00).

6. The following Section 6.14 is hereby added to the Loan Agreement:

6.14 Entry into Agreement. On or before January 31, 2019, one of the following: Asset Purchase Agreement Event, Equity Agreement Event or the Merger Agreement Event must have occurred in accordance with the terms of this Agreement; provided, however, nothing herein constitutes a consent by any Lender or Collateral Agent to any of the aforementioned.

7. Section 8.2(a) of the Loan Agreement is hereby amended and restated in its entirety as follows:

(a) Borrower or any of its Subsidiaries fails or neglects to perform any obligation in Sections 6.2 (Financial Statements, Reports, Certificates), 6.4 (Taxes), 6.5 (Insurance), 6.6 (Operating Accounts), 6.7 (Protection of Intellectual Property Rights), 6.9 (Notice of Litigation and Default), 6.10 (Financial Covenant), 6.12 (Creation/Acquisition of Subsidiaries), 6.14 (Entry into Agreement) or Borrower violates any covenant in Section 7 or Section 13; or

8. Section 13.1 of the Loan Agreement is hereby amended by adding the following definitions therein in alphabetical order:

“**Asset Purchase Agreement Event**” means the entry into an asset purchase agreement by Borrower, on and after December 21, 2018 and on or before January 31, 2019, which asset purchase agreement provides for the Transfer by Borrower to a third party of parts of Borrower’s business and/or property, with a minimum upfront gross proceeds to Borrower of Four Million Dollars (\$4,000,000.00) upon the initial closing of such transaction, which must be contemplated to occur on or prior to March 31, 2019, and

which agreement is in such form and substance as are acceptable and satisfactory to Collateral Agent and Required Lenders in their reasonable discretion.

“Equity Agreement Event” means the entry by Borrower, on and after December 21, 2018 and on or before January 31, 2019, into a binding agreement for the issuance and sale of its equity securities or unsecured convertible Subordinated Debt which would result unrestricted gross cash proceeds of not less than Seven Million Five Hundred Thousand Dollars (\$7,500,000.00) to Borrower on or before March 31, 2019, and which agreement is in such form and substance as are acceptable and satisfactory to Collateral Agent and Required Lenders in their reasonable discretion.

“Merger Agreement Event” means the entry into a merger agreement by Borrower, on and after December 21, 2018 and on or before January 31, 2019, which merger agreement provides for the merger of Borrower with and into a third party pursuant to which all of the Obligations will be paid down to a level satisfactory to the Lenders and Collateral Agent in their sole discretion at the time of the consummation of the merger on or prior to March 31, 2019, and which agreement is in such form and substance as are acceptable and satisfactory to Collateral Agent and Required Lenders in their reasonable discretion but does not require the consent of the Required Lenders for Borrower’s entry thereinto under Section 7.3 of the Loan Agreement.

9. Section 13.1 of the Loan Agreement is hereby further amended by amending and restating the following definition therein as follows:

“Maturity Date” is June 1, 2020.

10. The amortization table attached as Exhibit A to the Disbursement Letter entered into on the Effective Date, is hereby amended and restated as set forth on Exhibit A hereto.
11. Exhibit C to the Loan Agreement is hereby amended and restated in its entirety as set forth on Exhibit B hereto.
12. Limitation of Amendment.
- a. The amendments set forth above are effective for the purposes set forth herein and shall be limited precisely as written and shall not be deemed to (a) be a consent to any amendment, waiver or modification of any other term or condition of any Loan Document, or (b) otherwise prejudice any right, remedy or obligation which Lenders or Borrower may now have or may have in the future under or in connection with any Loan Document, as amended hereby.
 - b. This Amendment shall be construed in connection with and as part of the Loan Documents and all terms, conditions, representations, warranties, covenants and agreements set forth in the Loan Documents, except as herein amended, are hereby ratified and confirmed and shall remain in full force and effect.

13. To induce Collateral Agent and Lenders to enter into this Amendment, Borrower hereby represents and warrants to Collateral Agent and Lenders as follows:
- a. Immediately after giving effect to this Amendment (a) the representations and warranties contained in the Loan Documents are true, accurate and complete in all material respects as of the date hereof (except to the extent such representations and warranties relate to an earlier date, in which case they are true and correct as of such date), and (b) no Event of Default has occurred and is continuing;
 - b. Borrower has the power and due authority to execute and deliver this Amendment and to perform its obligations under the Loan Agreement, as amended by this Amendment;
 - c. The organizational documents of Borrower delivered to Collateral Agent on the Effective Date, and updated pursuant to subsequent deliveries by Borrower to Collateral Agent, remain true, accurate and complete and have not been amended, supplemented or restated and are and continue to be in full force and effect; The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, do not and will not contravene (i) any material law or regulation binding on or affecting Borrower, (ii) any material contractual restriction with a Person binding on Borrower, (iii) any material order, judgment or decree of any court or other governmental or public body or authority, or subdivision thereof, binding on Borrower, or (iv) the organizational documents of Borrower;
 - d. The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, do not require any order, consent, approval, license, authorization or validation of, or filing, recording or registration with, or exemption by any governmental or public body or authority, or subdivision thereof, binding on Borrower, except as already has been obtained or made; and
 - e. This Amendment has been duly executed and delivered by Borrower and is the binding obligation of Borrower, enforceable against Borrower in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, liquidation, moratorium or other similar laws of general application and equitable principles relating to or affecting creditors' rights.
14. Borrower hereby remises, releases, acquits, satisfies and forever discharges the Lenders and Collateral Agent, their agents, employees, officers, directors, predecessors, attorneys and all others acting or purporting to act on behalf of or at the direction of the Lenders and Collateral Agent ("**Releasees**"), of and from any and all manner of actions, causes of action, suit, debts, accounts, covenants, contracts, controversies, agreements, variances, damages, judgments, claims and demands whatsoever, in law or in equity, which any of such parties ever had, now has or, to the extent arising from or in connection with any act, omission or state of facts taken or existing on or prior to the date hereof, may have

after the date hereof against the Releasees, for, upon or by reason of any matter, cause or thing whatsoever relating to or arising out of the Loan Agreement or the other Loan Documents on or prior to the date hereof through the date hereof. Without limiting the generality of the foregoing, Borrower waives and affirmatively agrees not to allege or otherwise pursue any defenses, affirmative defenses, counterclaims, claims, causes of action, setoffs or other rights they do, shall or may have as of the date hereof, including the rights to contest: (a) the right of Collateral Agent and each Lender to exercise its rights and remedies described in the Loan Documents; (b) any provision of this Amendment or the Loan Documents; or (c) any conduct of the Lenders or other Releasees relating to or arising out of the Loan Agreement or the other Loan Documents on or prior to the date hereof.

15. Except as expressly set forth herein, the Loan Agreement shall continue in full force and effect without alteration or amendment. This Amendment and the Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements.
16. This Amendment shall be deemed effective as of the Amendment Date upon (a) the due execution and delivery to Collateral Agent of this Amendment by each party hereto, and (b) Borrower's payment of all Lenders' Expenses incurred through the date hereof, which may be debited from any of Borrower's accounts.
17. This Amendment may be executed in any number of counterparts, each of which shall be deemed an original, and all of which, taken together, shall constitute one and the same instrument.
18. This Amendment and the rights and obligations of the parties hereto shall be governed by and construed in accordance with the laws of the State of California.

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IN WITNESS WHEREOF, the parties hereto have caused this Fourth Amendment to Loan and Security Agreement to be executed as of the date first set forth above.

BORROWER:

CYTORI THERAPEUTICS, INC.

By: /s/ Tiago Girao

Name: Tiago Girao

Title: VP Finance and Chief Financial Officer

COLLATERAL AGENT AND LENDER:

OXFORD FINANCE LLC

By: /s/ Colette H. Featherly

Name: Colette H. Featherly

Title: Senior Vice President

Exhibit A

Amortization Table

Start Date:	5/29/2015	
Interest Rate:	8.95%	
Term:	60	
Payment:	Varies	
1st Amendment Fee:	\$25,000.00	
2nd Amendment Fee:	\$250,000.00	
3rd Amendment Fee:	\$50,000.00	
Fourth Amendment Fee:	\$350,000.00	
Final Payment:	\$1,088,550.00	6.15%
Amount:	17,700,000.00	
Interim Interest Days:	3	
Interim Interest:	\$13,201.25	

Disclaimer:
 THIS IS A STANDARD AMORTIZATION
 SCHEDULE. IT IS NOT INTENDED TO BE
 USED FOR PAYOFF PURPOSES.

PMT No.	Payment Date	Beginning Balance	Monthly Payment	Interest	Principal	Ending Balance
	6/1/15		Interim Interest Due			\$17,700,000.00
1	7/1/15	\$17,700,000.00	\$132,012.50	\$132,012.50	\$0.00	\$17,700,000.00
2	8/1/15	\$17,700,000.00	\$136,412.92	\$136,412.92	\$0.00	\$17,700,000.00
3	9/1/15	\$17,700,000.00	\$136,412.92	\$136,412.92	\$0.00	\$17,700,000.00
4	10/1/15	\$17,700,000.00	\$132,012.50	\$132,012.50	\$0.00	\$17,700,000.00
5	11/1/15	\$17,700,000.00	\$136,412.92	\$136,412.92	\$0.00	\$17,700,000.00
6	12/1/15	\$17,700,000.00	\$132,012.50	\$132,012.50	\$0.00	\$17,700,000.00
7	1/1/16	\$17,700,000.00	\$136,412.92	\$136,412.92	\$0.00	\$17,700,000.00
8	2/1/16	\$17,700,000.00	\$136,412.92	\$136,412.92	\$0.00	\$17,700,000.00
9	3/1/16	\$17,700,000.00	\$127,612.08	\$127,612.08	\$0.00	\$17,700,000.00
10	4/1/16	\$17,700,000.00	\$136,412.92	\$136,412.92	\$0.00	\$17,700,000.00
11	5/1/16	\$17,700,000.00	\$132,012.50	\$132,012.50	\$0.00	\$17,700,000.00
12	6/1/16	\$17,700,000.00	\$136,412.92	\$136,412.92	\$0.00	\$17,700,000.00
13	7/1/16	\$17,700,000.00	\$132,012.50	\$132,012.50	\$0.00	\$17,700,000.00
14	8/1/16	\$17,700,000.00	\$136,412.92	\$136,412.92	\$0.00	\$17,700,000.00
15	9/1/16	\$17,700,000.00	\$136,412.92	\$136,412.92	\$0.00	\$17,700,000.00
16	10/1/16	\$17,700,000.00	\$132,012.50	\$132,012.50	\$0.00	\$17,700,000.00
17	11/1/16	\$17,700,000.00	\$136,412.92	\$136,412.92	\$0.00	\$17,700,000.00
18	12/1/16	\$17,700,000.00	\$132,012.50	\$132,012.50	\$0.00	\$17,700,000.00
19	1/1/17	\$17,700,000.00	\$726,412.92	\$136,412.92	\$590,000.00	\$17,110,000.00
20	2/1/17	\$17,110,000.00	\$721,865.82	\$131,865.82	\$590,000.00	\$16,520,000.00
21	3/1/17	\$16,520,000.00	\$704,997.56	\$114,997.56	\$590,000.00	\$15,930,000.00
22	4/1/17	\$15,930,000.00	\$712,771.63	\$122,771.63	\$590,000.00	\$15,340,000.00
23	5/1/17	\$15,340,000.00	\$704,410.83	\$114,410.83	\$590,000.00	\$14,750,000.00
24	6/1/17	\$14,750,000.00	\$703,677.43	\$113,677.43	\$590,000.00	\$14,160,000.00
25	7/1/17	\$14,160,000.00	\$695,610.00	\$105,610.00	\$590,000.00	\$13,570,000.00
26	8/1/17	\$13,570,000.00	\$694,583.24	\$104,583.24	\$590,000.00	\$12,980,000.00
27	9/1/17	\$12,980,000.00	\$100,036.14	\$100,036.14	\$0.00	\$12,980,000.00
28	10/1/17	\$12,980,000.00	\$96,809.17	\$96,809.17	\$0.00	\$12,980,000.00
29	11/1/17	\$12,980,000.00	\$100,036.14	\$100,036.14	\$0.00	\$12,980,000.00
30	12/1/17	\$12,980,000.00	\$96,809.17	\$96,809.17	\$0.00	\$12,980,000.00
31	1/1/18	\$12,980,000.00	\$100,036.14	\$100,036.14	\$0.00	\$12,980,000.00
32	2/1/18	\$12,980,000.00	\$100,036.14	\$100,036.14	\$0.00	\$12,980,000.00
33	3/1/18	\$12,980,000.00	\$90,355.22	\$90,355.22	\$0.00	\$12,980,000.00
34	4/1/18	\$12,980,000.00	\$100,036.14	\$100,036.14	\$0.00	\$12,980,000.00
35	5/1/18	\$12,980,000.00	\$96,809.17	\$96,809.17	\$0.00	\$12,980,000.00
36	6/1/18	\$12,980,000.00	\$100,036.14	\$100,036.14	\$0.00	\$12,980,000.00
37	7/1/18	\$12,980,000.00	\$96,809.17	\$96,809.17	\$0.00	\$12,980,000.00
38	8/1/18	\$12,980,000.00	\$100,036.14	\$100,036.14	\$0.00	\$12,980,000.00
39	9/1/18	\$12,980,000.00	\$100,036.14	\$100,036.14	\$0.00	\$12,980,000.00
40	10/1/18	\$12,980,000.00	\$96,809.17	\$96,809.17	\$0.00	\$12,980,000.00
41	11/1/18	\$12,980,000.00	\$100,036.14	\$100,036.14	\$0.00	\$12,980,000.00
42	12/1/18	\$12,980,000.00	\$96,809.17	\$96,809.17	\$0.00	\$12,980,000.00
43	1/1/19	\$12,980,000.00	\$100,036.14	\$100,036.14	\$0.00	\$12,980,000.00
44	2/1/19	\$12,980,000.00	\$100,036.14	\$100,036.14	\$0.00	\$12,980,000.00
45	3/1/19	\$12,980,000.00	\$90,355.22	\$90,355.22	\$0.00	\$12,980,000.00
46	4/1/19	\$12,980,000.00	\$965,369.47	\$100,036.14	\$865,333.33	\$12,114,666.67
47	5/1/19	\$12,114,666.67	\$955,688.56	\$90,355.22	\$865,333.33	\$11,249,333.33
48	6/1/19	\$11,249,333.33	\$952,031.32	\$86,697.99	\$865,333.33	\$10,384,000.00
49	7/1/19	\$10,384,000.00	\$942,780.67	\$77,447.33	\$865,333.33	\$9,518,666.67
50	8/1/19	\$9,518,666.67	\$938,693.17	\$73,359.84	\$865,333.33	\$8,653,333.33
51	9/1/19	\$8,653,333.33	\$932,024.09	\$66,690.76	\$865,333.33	\$7,788,000.00
52	10/1/19	\$7,788,000.00	\$923,418.83	\$58,085.50	\$865,333.33	\$6,922,666.67
53	11/1/19	\$6,922,666.67	\$918,685.94	\$53,352.61	\$865,333.33	\$6,057,333.33
54	12/1/19	\$6,057,333.33	\$910,510.94	\$45,177.61	\$865,333.33	\$5,192,000.00
55	1/1/20	\$5,192,000.00	\$905,347.79	\$40,014.46	\$865,333.33	\$4,326,666.67
56	2/1/20	\$4,326,666.67	\$898,678.71	\$33,345.38	\$865,333.33	\$3,461,333.33
57	3/1/20	\$3,461,333.33	\$890,288.59	\$24,955.25	\$865,333.33	\$2,596,000.00
58	4/1/20	\$2,596,000.00	\$885,340.56	\$20,007.23	\$865,333.33	\$1,730,666.67
59	5/1/20	\$1,730,666.67	\$878,241.22	\$12,907.89	\$865,333.33	\$865,333.33
60	6/1/20	\$865,333.33	\$872,002.41	\$6,669.08	\$865,333.33	(\$0.00)
Final	6/1/20		Final Payment	\$1,763,550.00	\$1,763,550.00	\$0.00
		Totals	\$25,474,773.41	\$7,774,773.41	\$17,700,000.00	

Exhibit B

Compliance Certificate

TO: OXFORD FINANCE LLC, as Collateral Agent and Lender

FROM: CYTORI THERAPEUTICS, INC.

The undersigned authorized officer (“**Officer**”) of Cytori Therapeutics, Inc. (“**Borrower**”), hereby certifies, in such capacity on behalf of Borrower, that in accordance with the terms and conditions of the Loan and Security Agreement by and among Borrower, Collateral Agent, and the Lenders from time to time party thereto (the “**Loan Agreement**,” capitalized terms used but not otherwise defined herein shall have the meanings given them in the Loan Agreement),

- (a) Borrower is in complete compliance for the period ending _____ with all required covenants except as noted below;
- (b) There are no Events of Default, except as noted below;
- (c) Except as noted below, all representations and warranties of Borrower stated in the Loan Documents are true and correct in all material respects on this date and for the period described in (a), above; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date.
- (d) Borrower, and each of Borrower’s Subsidiaries, has timely filed all required federal (and all material foreign, state and local) tax returns and reports (or timely extensions therefor), and Borrower, and each of Borrower’s Subsidiaries, has timely paid all federal and all material foreign, state, and local taxes, assessments, deposits and contributions owed by Borrower, or Subsidiary, except as otherwise permitted pursuant to the terms of Section 5.8 of the Loan Agreement;
- (e) No Liens have been levied or claims made against Borrower or any of its Subsidiaries relating to unpaid employee payroll or benefits of which Borrower has not previously provided written notification to Collateral Agent and the Lenders.

Attached are the required documents, if any, supporting our certification(s). The Officer, on behalf of Borrower, further certifies that the attached financial statements are prepared in accordance with Generally Accepted Accounting Principles (GAAP) and are consistently applied from one period to the next except as explained in an accompanying letter or footnotes and except, in the case of unaudited financial statements, for the absence of footnotes and subject to year-end audit adjustments as to the interim financial statements.

Please indicate compliance status since the last Compliance Certificate by circling Yes, No, or N/A under "Complies" column.

Reporting Covenant	Requirement	Actual	Complies		
1) Financial statements	Monthly within 45 days		Yes	No	N/A
2) Annual (CPA Audited) statements	Within 120 days after FYE		Yes	No	N/A
3) Annual Financial Projections/Budget (prepared on a monthly basis)	Annually (within 10 days of FYE), and when revised		Yes	No	N/A
4) A/R & A/P agings	If applicable		Yes	No	N/A
5) 8-K, 10-K and 10-Q Filings	If applicable, within 5 days of filing		Yes	No	N/A
6) Compliance Certificate	Monthly within 30 days		Yes	No	N/A
7) IP Report	When required		Yes	No	N/A
8) Total amount of Borrower's cash and cash equivalents at the last day of the measurement period		\$_____	Yes	No	N/A
9) Total amount of Borrower's Subsidiaries' cash and cash equivalents at the last day of the measurement period		\$_____	Yes	No	N/A

Deposit and Securities Accounts

(Please list all accounts; attach separate sheet if additional space needed)

Institution Name	Account Number	New Account?		Account Control Agreement in place?	
1)		Yes	No	Yes	No
2)		Yes	No	Yes	No
3)		Yes	No	Yes	No
4)		Yes	No	Yes	No

Financial Covenants

	Covenant	Requirement	Actual	Compliance	
1)	Unrestricted cash and Cash Equivalents	\$2,000,000	[] [\$_____]	Yes	No

Other Matters

- | | | | |
|----|--|-----|----|
| 1) | Have there been any changes in management since the last Compliance Certificate? | Yes | No |
| 2) | Have there been any transfers/sales/disposals/retirement of Collateral or IP prohibited by the Loan Agreement? | Yes | No |
| 3) | Have there been any new or pending claims or causes of action against Borrower that could reasonably be expected to have a Material Adverse Change? | Yes | No |
| 4) | Have there been any amendments of or other changes to the Operating Documents of Borrower or any of its Subsidiaries? If yes, provide copies of any such amendments or changes with this Compliance Certificate. | Yes | No |
-

Exceptions

Please explain any exceptions with respect to the certification above: (If no exceptions exist, state "No exceptions." Attach separate sheet if additional space needed.)

CYTORI THERAPEUTICS, INC.

By:
Name:
Title:

Date:

LENDER USE ONLY

Received by: Date:

Verified by: Date:

Compliance Status: YesNo

Consent of Independent Registered Public Accounting Firm

Cytori Therapeutics, Inc.
San Diego, California

We hereby consent to the incorporation by reference in the Prospectus constituting a part of this Registration Statement of our report dated March 9, 2018, relating to the consolidated financial statements and schedule of Cytori Therapeutics, Inc. (“Company”), appearing in the Company’s Annual Report on Form 10-K for the year ended December 31, 2017. Our report contains an explanatory paragraph regarding the Company’s ability to continue as a going concern.

We also consent to the reference to us under the caption “Experts” in the Prospectus.

/s/ BDO USA, LLP
San Diego, California
February 1, 2019