



Subscription Rights to Purchase Up to 25,000 Units
Consisting of an Aggregate of Up to 25,000 Shares of Series C Preferred Stock
and Warrants to Purchase Up to 5,000,000 Shares of Common Stock
at a Subscription Price of \$1,000 Per Unit

We are distributing to holders of our common stock and Series B Preferred Stock, at no charge, non-transferable subscription rights to purchase units. Each unit, which we refer to as a Unit, consists of one share of Series C Preferred Stock and 200 warrants, which we refer to as the Warrants. Each Warrant will be exercisable for one share of our common stock. We refer to the offering that is the subject of this prospectus as the Rights Offering. In the Rights Offering, you will receive one subscription right for every share of common stock or Series B Preferred Stock (on an as-if-converted-to-common-stock basis) owned at 5:00 p.m., Eastern Time, on June 26, 2018, the record date of the Rights Offering, or the Record Date. The Series C Preferred Stock and the Warrants comprising the Units will separate upon the closing of the Rights Offering and will be issued separately but may only be purchased as a Unit, and the Units will not trade as a separate security. The subscription rights will not be tradable.

Each subscription right will entitle you to purchase one Unit, which we refer to as the Basic Subscription Right, at a subscription price per Unit of \$1,000, which we refer to as the Subscription Price. Each Warrant entitles the holder to purchase one share of common stock at an exercise price of \$3.17 per share from the date of issuance through its expiration 30 months from the date of issuance. If you exercise your Basic Subscription Rights in full, and any portion of the Units remain available under the Rights Offering, you will be entitled to an over-subscription privilege to purchase a portion of the unsubscribed Units at the Subscription Price, subject to proration and ownership limitations, which we refer to as the Over-Subscription Privilege. Each subscription right consists of a Basic Subscription Right and an Over-Subscription Privilege, which we refer to as the Subscription Right.

The Subscription Rights will expire if they are not exercised by 5:00 p.m., Eastern Time, on July 13, 2018, unless the Rights Offering is extended or earlier terminated by the Company. If we elect to extend the Rights Offering, we will issue a press release announcing the extension no later than 9:00 a.m., Eastern Time, on the next business day after the most recently announced expiration date of the Rights Offering. We may extend the Rights Offering for additional periods in our sole discretion. Once made, all exercises of Subscription Rights are irrevocable.

We have not entered into any standby purchase agreement or other similar arrangement in connection with the Rights Offering. The Rights Offering is being conducted on a best-efforts basis and there is no minimum amount of proceeds necessary to be received in order for us to close the Rights Offering.

We have engaged Maxim Group LLC to act as dealer-manager in the Rights Offering.

Investing in our securities involves a high degree of risk. See the section entitled “Risk Factors” beginning on page 16 of this prospectus. You should carefully consider these risk factors, as well as the information contained in this prospectus, before you invest.

Broadridge Corporate Issuer Solutions, Inc. will serve as the Subscription and Information Agent for the Rights Offering. The Subscription Agent will hold the funds we receive from subscribers until we complete, abandon or terminate the Rights Offering. If you want to participate in this Rights Offering and you are the record holder of your shares, we recommend that you submit your subscription documents to the Subscription Agent well before the deadline. If you want to participate in this Rights Offering and you hold shares through your broker, dealer, bank or other nominee, you should promptly contact your broker, dealer, bank or other nominee and submit your subscription documents in accordance with the instructions and within the time period provided by your broker, dealer, bank or other nominee. For a detailed discussion, see “The Rights Offering – The Subscription Rights.”

Our board of directors reserves the right to terminate the Rights Offering for any reason any time before the closing of the Rights Offering. If we terminate the Rights Offering, all subscription payments received will be returned within 10 business days, without interest or deduction. We expect the Rights Offering to expire on or about July 13, 2018, subject to our right to extend the Rights Offering as described above, and that we would close on subscriptions within five business days of such date.

Our common stock is listed on the Nasdaq Capital Market, or Nasdaq, under the symbol “CYTX.” On June 21, 2018, the last reported sale price of our common stock was \$2.04 per share. There is no established public trading market for the Series C Preferred Stock or the Warrants. We do not intend to apply for listing of the Series C Preferred Stock on any securities exchange or recognized trading system. We plan to apply to list the Warrants on Nasdaq following their issuance under the symbol “CYTXL.” The Subscription Rights are non-transferrable and will not be listed for trading on Nasdaq or any other securities exchange or market. You are urged to obtain a current price quote for our common stock before exercising your Subscription Rights.

	Per Unit	Total⁽²⁾
Subscription price	\$ 1,000.00	\$ 25,000,000
Dealer-Manager fees and expenses ⁽¹⁾	\$ 73.00	\$ 1,825,000
Proceeds to us, before expenses	\$ 927.00	\$ 23,175,000

(1) In connection with this Rights Offering, we have agreed to pay to Maxim Group LLC as the dealer-manager a cash fee equal to (a) 6% of the gross proceeds received by us directly from exercises of the Subscription Rights if the amount of such gross proceeds is less than \$12 million or (b) 7% of the gross proceeds received by us directly from exercises of the Subscription Rights if the amount of such gross proceeds is at least \$12 million. We have also agreed to reimburse the dealer-manager for its expenses up to \$75,000. See “Plan of Distribution.”

(2) Assumes the Rights Offering is fully subscribed, but excludes proceeds from the exercise of Warrants included within the Units.

Our board of directors is making no recommendation regarding your exercise of the Subscription Rights. You should carefully consider whether to exercise your Subscription Rights before the expiration date. You may not revoke or revise any exercises of Subscription Rights once made.

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.

Dealer-Manager

Maxim Group LLC

The date of this Prospectus is June 22, 2018

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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 provided in this prospectus or in a prospectus supplement or any free writing prospectuses or amendments thereto. We have not authorized anyone else to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. You should assume that the information in this prospectus is accurate only as of the date hereof. Our business, financial condition, results of operations and prospects may have changed since that date.

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 and the dealer-manager 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 must inform themselves about, and observe any restrictions relating to, the offering of the securities as to distribution of the prospectus outside of the United States.

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.

QUESTIONS AND ANSWERS RELATING TO THE RIGHTS OFFERING

The following are examples of what we anticipate will be common questions about this Rights Offering. The answers are based on selected information included elsewhere in this prospectus. The following questions and answers do not contain all of the information that may be important to you and may not address all of the questions that you may have about the Rights Offering. This prospectus and the documents incorporated by reference into this prospectus contain more detailed descriptions of the terms and conditions of the Rights Offering and provides additional information about us and our business, including potential risks related to the Rights Offering, the Units offered hereby, and our business. We urge you to read this entire prospectus and the documents incorporated by reference into this prospectus.

Why are we conducting the Rights Offering?

We are conducting the Rights Offering to raise additional capital for research and development, including the development of our current oncology pipeline, for further research and development activities, to repay a portion of the amount outstanding under our Loan and Security Agreement, dated May 29, 2017, with Oxford Finance LLC, as amended, or the Loan Agreement, for general corporate purposes, primarily development and sales and marketing initiatives relating to our potential commercialization of ATI-0918 in Europe, and for general administrative expenses, working capital and capital expenditures.

What is the Rights Offering?

We are distributing, at no charge, to record holders of our common stock and Series B Preferred Stock, non-transferable Subscription Rights to purchase Units at a price of \$1,000 per Unit. The Subscription Rights will not be tradable. Each Unit consists of one share of Series C Preferred Stock and 200 Warrants. Each share of Series C Preferred Stock is convertible 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 \$2.64 per share, subject to adjustment. See “Are there risks in exercising my Subscription Rights?” below. Each Warrant will be exercisable for one share of our common stock. Upon closing of the Rights Offering, the Series C Preferred Stock and Warrants will immediately separate. We plan to apply to list the Warrants on Nasdaq under the symbol “CYTXL.” You will receive one Subscription Right for every share of common stock or Series B Preferred Stock (on an as-if-converted-to-common-stock basis) that you owned as of 5:00 p.m., Eastern Time, on the Record Date. Each Subscription Right entitles the record holder to a Basic Subscription Right and an Over-Subscription Privilege. The Subscription Rights will expire if they are not exercised by 5:00 p.m., Eastern Time, on July 13, 2018, unless we extend or earlier terminate the Rights Offering.

What are the Basic Subscription Rights?

For every share you owned as of the Record Date, you will receive one Basic Subscription Right, which gives you the opportunity to purchase one Unit, consisting of one share of our Series C Preferred Stock and 200 Warrants, for a price of \$1,000 per Unit. For example, if you owned 100 shares of common stock as of the Record Date, you will receive 100 Subscription Rights and will have the right to purchase 100 shares of our Series C Preferred Stock and Warrants to purchase 20,000 shares of our common stock for \$1,000 per Unit (or a total payment of \$100,000). You may exercise all or a portion of your Basic Subscription Rights or you may choose not to exercise any Basic Subscription Rights at all.

If you are a record holder of our common stock or Series B Preferred Stock, the number of shares you may purchase pursuant to your Basic Subscription Rights is indicated on the enclosed Rights Certificate. If you hold your shares in the name of a broker, dealer, bank or other nominee who uses the services of the Depository Trust Company, or DTC, you will not receive a Rights Certificate. Instead, DTC will issue one Subscription Right to your nominee record holder for each share of our common stock or Series B Preferred Stock (on an as-if-converted-to-

common-stock basis) that you beneficially own as of the Record Date. If you are not contacted by your nominee, you should contact your nominee as soon as possible.

What is the Over-Subscription Privilege?

If you exercise your Basic Subscription Rights in full, you may also choose to exercise your Over-Subscription Privilege to purchase a portion of any Units that remain available under the Rights Offering. You should indicate on your Rights Certificate, or the form provided by your nominee if your shares are held in the name of a nominee, how many additional Units you would like to purchase pursuant to your Over-Subscription Privilege, which we refer to as your Over-Subscription Request.

Subject to stock ownership limitations, if sufficient Units are available, we will seek to honor your Over-Subscription Request in full. If Over-Subscription Requests exceed the number of Units available, however, we will allocate the available Units pro-rata among the record holders exercising the Over-Subscription Privilege in proportion to the number of shares of our common stock or Series B Preferred Stock, as applicable, each of those record holders owned on the Record Date, relative to the number of shares owned on the Record Date by all record holders exercising the Over-Subscription Privilege. If this pro-rata allocation results in any record holders receiving a greater number of Units than the record holder subscribed for pursuant to the exercise of the Over-Subscription Privilege, then such record holder will be allocated only that number of Units for which the record holder oversubscribed, and the remaining Units will be allocated among all other record holders exercising the Over-Subscription Privilege on the same pro rata basis described above. The proration process will be repeated until all Units have been allocated. See “The Rights Offering—Limitation on the Purchase of Units” for a description of certain stock ownership limitations.

To properly exercise your Over-Subscription Privilege, you must deliver to the Subscription Agent the subscription payment related to your Over-Subscription Privilege before the Rights Offering expires. See “The Rights Offering—The Subscription Rights—Over-Subscription Privilege.” To the extent you properly exercise your Over-Subscription Privilege for an amount of Units that exceeds the number of unsubscribed Units available to you, any excess subscription payments will be returned to you within 10 business days after the expiration of the Rights Offering, without interest or deduction.

Broadridge Corporate Issuer Solutions, Inc., our Subscription Agent for the Rights Offering, will determine the allocation of Over-Subscription Requests based on the formula described above.

May the Subscription Rights that I exercise be reduced for any reason?

Yes. While we are distributing to holders of our common stock and holders of our Series B Preferred Stock one Subscription Right for every share of common stock or Series B Preferred Stock (on an as-if-converted-to-common-stock basis) owned on the Record Date, we are only seeking to raise \$25.0 million dollars in gross proceeds in this Rights Offering. As a result, based on 6,161,380 shares of common stock outstanding and 357,900 shares of our common stock issuable upon the conversion of shares of Series B Preferred Stock outstanding as of March 31, 2018, we would grant Subscription Rights to acquire 6,519,280 Units but will only accept subscriptions for 25,000 Units. Accordingly, sufficient Units may not be available to honor your subscription in full. If exercises of Basic Subscription Rights exceed the number of Units available in the Rights Offering, we will allocate the available Units pro-rata among the record holders exercising the Basic Subscription Rights in proportion to the number of shares of our common stock or Series B Preferred Stock each of those record holders owned on the Record Date, relative to the number of shares owned on the Record Date by all record holders exercising the Basic Subscription Right. If this pro-rata allocation results in any record holders receiving a greater number of Units than the record holder subscribed for pursuant to the exercise of the Basic Subscription Rights, then such record holder will be allocated only that number of Units for which the record holder subscribed, and the remaining Units will be allocated among all other record holders exercising their Basic Subscription Rights on the same pro rata basis described above. The proration process will be repeated until all Units have been allocated. Please also see the

discussion under “The Rights Offering—The Subscription Rights—Over-Subscription Privilege” and “The Rights Offering—Limitation on the Purchase of Units” for a description potential proration as to the Over-Subscription Privilege and certain stock ownership limitations.

If for any reason the amount of Units allocated to you is less than you have subscribed for, then the excess funds held by the Subscription Agent on your behalf will be returned to you, without interest, as soon as practicable after the Rights Offering has expired and all prorating calculations and reductions contemplated by the terms of the Rights Offering have been effected, and we will have no further obligations to you.

What are the terms of the Series C Preferred Stock?

Each share of Series C Preferred Stock will be convertible, at our option at any time on or after the first anniversary of the closing of the Rights Offering, 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 \$2.64 per share, subject to adjustment. The Series C Preferred Stock has certain conversion rights, dividend rights and liquidation preferences as described in more detail herein. The Series C Preferred Stock will not be listed on Nasdaq.

What are the terms of the Warrants?

Each Warrant entitles the holder to purchase one share of our common stock at an exercise price of \$3.17 per share from the date of issuance through its expiration 30 months from the date of issuance. The Warrants will be exercisable for cash, or, solely during any period when a registration statement for the exercise of the Warrants is not in effect, on a cashless basis. We may redeem the Warrants for \$0.01 per Warrant if our common stock closes above \$7.92 per share for 20 consecutive trading days, subject to certain conditions, provided that we may not do so prior to the first anniversary of closing of the Rights Offering.

Are the Warrants listed?

We plan to apply to list the Warrants on Nasdaq under the symbol “CYTXL,” although there is no assurance that a sufficient number of Subscription Rights will be exercised so that the Warrants will meet the minimum listing criteria to be accepted for listing on Nasdaq.

The Warrants will be issued in registered form under a warrant agent agreement with Broadridge Corporate Issuer Solutions, Inc. as warrant agent.

What are the requirements to list the Warrants on Nasdaq?

To satisfy the initial listing requirement for Warrants on Nasdaq, we must (i) issue at least 400,000 Warrants, (ii) maintain the listing of the common stock underlying the Warrants on Nasdaq, (iii) have at least three registered and active market makers, and (iv) have at least 400 round lot holders of the Warrants (meaning a holder of at least 100 warrants).

Will fractional shares be issued upon exercise of Subscription Rights, upon the conversion of Series C Preferred Stock or upon the exercise of Warrants?

No. We will not issue fractional shares of common stock in the Rights Offering. We will only distribute Subscription Rights to acquire whole Units, and rights holders will only be entitled to purchase a number of Units representing a whole number of shares and Warrants, rounded down to the nearest whole number of shares or Warrants, as applicable, a holder would otherwise be entitled to purchase. Any excess subscription payments

received by the Subscription Agent will be returned within 10 business days after expiration of the Rights Offering, without interest or deduction. No fractional shares shall be issued upon the conversion of the Series C Preferred Stock or upon the exercise of Warrants.

What effect will the Rights Offering have on our outstanding common stock?

Assuming no other transactions by us involving our capital stock prior to the expiration of the Rights Offering, and if the Rights Offering is fully subscribed, upon consummation of the Rights Offering we will have 6,161,380 shares of common stock issued and outstanding, 25,000 shares of Series C Preferred Stock issued and outstanding, and Warrants to purchase an additional 5,000,000 shares of our common stock issued and outstanding, based on 6,161,380 shares of our common stock outstanding as of March 31, 2018. The exact number of shares of Series C Preferred Stock and Warrants that we will issue in this offering will depend on the number of Units that are subscribed for in the Rights Offering.

How was the Subscription Price determined?

In determining the Subscription Price, the directors considered, among other things, the following factors:

- the current and historical trading prices of our common stock;
- the price at which stockholders might be willing to participate in the Rights Offering;
- the value of the Series C Preferred Stock being issued as a component of the Unit;
- the value of the Warrant being issued as a component of the Unit;
- our need for additional capital and liquidity;
- the cost of capital from other sources; and
- comparable precedent transactions, including the percentage of shares offered, the terms of the subscription rights being offered, the subscription price and the discount that the subscription price represented to the immediately prevailing closing prices for those offerings.

In conjunction with the review of these factors, the board of directors also reviewed our history and prospects, including our past and present earnings and cash requirements, our prospects for the future, the outlook for our industry and our current financial condition. The board of directors also believed that the Subscription Price should be designed to provide an incentive to our current stockholders to participate in the Rights Offering and exercise their Basic Subscription Right and their Over-Subscription Privilege.

The Subscription Price does not necessarily bear any relationship to any established criteria for value. You should not consider the Subscription Price as an indication of actual value of our company or our common stock. The market price of our common stock may decline during or after the Rights Offering. There is currently no market for our shares of Series C Preferred Stock and, unless we or you choose to convert your shares of Series C Preferred Stock into shares of common stock, you will not be able to re-sell such shares. You should obtain a current price quote for our common stock and perform an independent assessment of our Series C Preferred Stock and Warrants before exercising your Subscription Rights and make your own assessment of our business and financial condition, our prospects for the future, the terms of the Rights Offering, the information in this prospectus and the other considerations relevant to your circumstances. Once made, all exercises of Subscription Rights are irrevocable. In addition, 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 plan to apply to list the Warrants for trading on Nasdaq under the symbol "CYTXL," but there can be no assurance that a sufficient number of Subscription Rights will be exercised so that the Warrants will meet minimum listing criteria to be accepted for listing on Nasdaq or that a market will develop for the Warrants.

Am I required to exercise all of the Basic Subscription Rights I receive in the Rights Offering?

No. You may exercise any number of your Basic Subscription Rights, or you may choose not to exercise any Basic Subscription Rights. If you do not exercise any Basic Subscription Rights, the number of shares of our common stock or Series B Preferred Stock you own will not change. However, if you choose to not exercise your Basic Subscription Rights in full and other holders of Subscription Rights do exercise, your proportionate ownership interest in our company will decrease. If you do not exercise your Basic Subscription Rights in full, you will not be entitled to exercise your Over-Subscription Privilege.

How soon must I act to exercise my Subscription Rights?

If you received a Rights Certificate and elect to exercise any or all of your Subscription Rights, the Subscription Agent must receive your completed and signed Rights Certificate and payment for both your Basic Subscription Rights and any Over-Subscription Privilege you elect to exercise before the Rights Offering expires on July 13, 2018, at 5:00 p.m., Eastern Time, unless we extend or earlier terminate the Rights Offering. If you hold your shares in the name of a broker, dealer, bank or other nominee, your nominee may establish a deadline before the expiration of the Rights Offering by which you must provide it with your instructions to exercise your Subscription Rights, along with the required subscription payment.

May I transfer my Subscription Rights?

No. The Subscription Rights may be exercised only by the stockholders to whom they are distributed, and they may not be sold, transferred, assigned or given away to anyone else, other than by operation of law. As a result, Rights Certificates may be completed only by the stockholder who receives the certificate. We do not intend to apply for the listing of the Subscription Rights on any securities exchange or recognized trading market.

Will our directors and executive officers participate in the Rights Offering?

To the extent they hold common stock or Series B Preferred Stock as of the Record Date, our directors and executive officers will be entitled to participate in the Rights Offering on the same terms and conditions applicable to other Rights holders. While none of our directors or executive officers has entered into any binding commitment or agreement to exercise Subscription Rights received in the Rights Offering, all of our directors and executive officers have indicated an interest in participating in the offering.

Has the board of directors made a recommendation to stockholders regarding the Rights Offering?

No. Our board of directors is making no recommendation regarding your exercise of the Subscription Rights. Rights holders who exercise Subscription Rights will incur investment risk on new money invested. There is currently no market for our shares of Series C Preferred Stock and, unless we or you choose to convert your shares of Series C Preferred Stock into shares of common stock, you will not be able to re-sell such shares. We cannot predict the price at which our shares of common stock and, if listed, the Warrants will trade after the Rights Offering. On June 21, 2018, the last reported sale price of our common stock on Nasdaq was \$2.04 per share. You should make your decision based on your assessment of our business and financial condition, our prospects for the future, the terms of the Rights Offering, the information contained in this prospectus and other considerations relevant to your circumstances. See "Risk Factors" for discussion of some of the risks involved in investing in our securities.

How do I exercise my Subscription Rights?

If you are a stockholder of record (meaning you hold your shares of our common stock or Series B Preferred Stock in your name and not through a broker, dealer, bank or other nominee) and you wish to participate in the Rights Offering, you must deliver a properly completed and signed Rights Certificate, together with payment of the Subscription Price for both your Basic Subscription Rights and any Over-Subscription Privilege you elect to exercise, to the Subscription Agent before 5:00 p.m., Eastern Time, on July 13, 2018. If you are exercising your Subscription Rights through your broker, dealer, bank or other nominee, you should promptly contact your broker, dealer, bank or other nominee and submit your subscription documents and payment for the Units subscribed for in accordance with the instructions and within the time period provided by your broker, dealer, bank or other nominee.

What if my shares are held in “street name”?

If you hold your shares of our common stock or Series B Preferred Stock in the name of a broker, dealer, bank or other nominee, then your broker, dealer, bank or other nominee is the record holder of the shares you beneficially own. The record holder must exercise the Subscription Rights on your behalf. Therefore, you will need to have your record holder act for you.

If you wish to participate in this Rights Offering and purchase Units, please promptly contact the record holder of your shares. We will ask the record holder of your shares, who may be your broker, dealer, bank or other nominee, to notify you of this Rights Offering.

What form of payment is required?

You must timely pay the full Subscription Price for the full number of Units you wish to acquire pursuant to the exercise of Subscription Rights by delivering to the Subscription Agent a:

- personal check drawn on a U.S. bank;
- certified check drawn on a U.S. bank;
- U.S. Postal money order; or
- wire transfer.

If you send payment by personal uncertified check, payment will not be deemed to have been delivered to the Subscription Agent until the check has cleared. As such, any payments made by personal check should be delivered to the Subscription Agent no fewer than three business days prior to the expiration date.

If you send a payment that is insufficient to purchase the number of Units you requested, or if the number of Units you requested is not specified in the forms, the payment received will be applied to exercise your Subscription Rights to the fullest extent possible based on the amount of the payment received.

When will I receive my new shares of Series C Preferred Stock and Warrants?

As soon as practicable after the expiration of the Rights Offering, and within five business days thereof, we expect to close on subscriptions and for the Subscription Agent to arrange for the issuance of the shares of Series C Preferred Stock and Warrants purchased in the Rights Offering. At closing, all prorating calculations and reductions contemplated by the terms of the Rights Offering will have been effected and payment to us for the subscribed-for Units will have cleared. All shares and Warrants that you purchase in the Rights Offering will be issued in book-entry, or uncertificated, form meaning that you will receive a direct registration, or DRS, account statement from our

transfer agent reflecting ownership of these securities if you are a holder of record of shares or warrants. If you hold your shares in the name of a broker, dealer, bank or other nominee, DTC will credit your account with your nominee with the securities you purchase in the Rights Offering. Broadridge Corporate Issuer Solutions, Inc. is acting as the warrant agent in this offering.

After I send in my payment and Rights Certificate to the Subscription Agent, may I cancel my exercise of Subscription Rights?

No. Exercises of Subscription Rights are irrevocable, even if you later learn information that you consider to be unfavorable to the exercise of your Subscription Rights. You should not exercise your Subscription Rights unless you are certain that you wish to purchase Units at the Subscription Price.

How much will our company receive from the Rights Offering?

Assuming that all 25,000 Units are sold in the Rights Offering, we estimate that the net proceeds from the Rights Offering will be approximately \$22.8 million, based on the Subscription Price of \$1,000 per Unit, after deducting fees and expenses payable to the dealer-manager, and after deducting other estimated expenses payable by us and excluding any proceeds received upon exercise of any Warrants. If all Warrants included in the Units are exercised for cash at the exercise price of \$3.17 per share, we will receive an additional \$15.9 million. We intend to use approximately the first \$12.0 million of the net proceeds from the exercise of Subscription Rights for research and development, including the development of our current oncology pipeline, approximately \$5.0 million to repay a portion of the amount outstanding under the Loan Agreement, and, if funds remain, for further research and development activities. In addition, we intend to use any remaining net proceeds for general corporate purposes, primarily sales and marketing initiatives relating to our potential commercialization of our ATI-0918 in Europe, and any other remaining net proceeds for general administrative expenses, working capital and capital expenditures. See "Use of Proceeds."

Are there risks in exercising my Subscription Rights?

Yes. The exercise of your Subscription Rights involves risks. Exercising your Subscription Rights involves the purchase of shares of our Series C Preferred Stock and Warrants to purchase common stock and you should consider this investment as carefully as you would consider any other investment. There is currently no market for our shares of Series C Preferred Stock and, unless we or you choose to convert your shares of Series C Preferred Stock into shares of common stock, you will not be able to re-sell such shares. In addition, our Warrants may not be listed on Nasdaq and, even if listed, a market for the Warrants may not develop. See "Risk Factors" for discussion of additional risks involved in investing in our securities.

Can the board of directors terminate or extend the Rights Offering?

Yes. Our board of directors may decide to terminate the Rights Offering at any time and for any reason before the expiration of the Rights Offering. We also have the right to extend the Rights Offering for additional periods in our sole discretion. We do not presently intend to extend the Rights Offering. We will notify stockholders and the public if the Rights Offering is terminated or extended by issuing a press release announcing the extension no later than 9:00 a.m., Eastern Time, on the next business day after the most recently announced expiration date of the Rights Offering.

If the Rights Offering is not completed or is terminated, will my subscription payment be refunded to me?

Yes. The Subscription Agent will hold all funds it receives in a segregated bank account until completion of the Rights Offering. If we do not complete the Rights Offering, all subscription payments received by the Subscription Agent will be returned within 10 business days after the termination or expiration of the Rights

Offering, without interest or deduction. If you own shares in “street name,” it may take longer for you to receive your subscription payment because the Subscription Agent will return payments through the record holder of your shares.

How do I exercise my Rights if I live outside the United States?

The Subscription Agent will hold Rights Certificates for stockholders having addresses outside the United States. To exercise Subscription Rights, foreign stockholders must notify the Subscription Agent and timely follow other procedures described in the section entitled “The Rights Offering – Foreign Stockholders.”

What fees or charges apply if I purchase shares in the Rights Offering?

We are not charging any fee or sales commission to issue Subscription Rights to you or to issue shares of common stock or Warrants to you if you exercise your Subscription Rights. If you exercise your Subscription Rights through a broker, dealer, bank or other nominee, you are responsible for paying any fees your broker, dealer, bank or other nominee may charge you.

What are the U.S. federal income tax consequences of receiving and/or exercising my Subscription Rights?

For U.S. federal income tax purposes, we believe you should not recognize income or loss in connection with the receipt of Subscription Rights in the Rights Offering with respect to your existing shares of common stock, although you will recognize income upon receipt of Subscription Rights in the Rights Offering with respect to your existing shares of Series B Preferred Stock. The exercise of the Subscription Rights in either case should not result in income or loss for U.S. federal income tax purposes. You should consult your tax advisor as to the tax consequences of the Rights Offering in light of your particular circumstances. For a detailed discussion, see “Material U.S. Federal Income Tax Consequences.”

To whom should I send my forms and payment?

If your shares are held in the name of a broker, dealer, bank or other nominee, then you should send your subscription documents and subscription payment to that broker, dealer, bank or other nominee. If you are the record holder, then you should send your subscription documents, Rights Certificate, and subscription payment to the Subscription Agent by hand delivery, first class mail or courier service to:

By mail:

Broadridge Corporate Issuer Solutions, Inc.
Attn: BCIS Re-Organization Dept.
P.O. Box 1317
Brentwood, New York 11717-0693
(855) 793-5068 (toll free)

By hand or overnight courier:

Broadridge Corporate Issuer Solutions, Inc.
Attn: BCIS IWS
51 Mercedes Way
Edgewood, New York 11717
(855) 793-5068

You or, if applicable, your nominee are solely responsible for completing delivery to the Subscription Agent of your subscription documents, Rights Certificate and payment. You should allow sufficient time for delivery of your subscription materials to the Subscription Agent and clearance of payment before the expiration of the Rights Offering at 5:00 p.m. Eastern Time on July 13, 2018.

Whom should I contact if I have other questions?

If you have other questions or need assistance, please contact the Information Agent:

Broadridge Corporate Issuer Solutions, Inc.
(855) 793-5068 (toll free)

Who is the dealer-manager?

Maxim Group LLC will act as dealer-manager for the Rights Offering. Under the terms and subject to the conditions contained in the dealer-manager agreement, the dealer-manager will use its best efforts to solicit the exercise of Subscription Rights. We have agreed to pay the dealer-manager certain fees for acting as dealer-manager and to reimburse the dealer-manager for certain out-of-pocket expenses incurred in connection with this offering. The dealer-manager is not underwriting or placing any of the Subscription Rights or the shares of our common stock or Warrants being issued in the Rights Offering and is not making any recommendation with respect to such Subscription Rights (including with respect to the exercise or expiration of such Subscription Rights), shares of Series C Preferred Stock or Warrants.

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 stockholder value. Our current corporate activities fall substantially into advancing these platforms: Cytori Nanomedicine and Cytori Cell Therapy.

The Cytori Nanomedicine platform features a versatile liposomal nanoparticle technology for drug encapsulation that has thus far provided the foundation to bring two promising drugs into mid/late stage clinical trials. Nanoparticle encapsulation is promising because it can help improve the delivery and metabolism of many drugs, thus potentially enhancing the therapeutic profile and patient benefits. Our lead drug candidate, ATI-0918 is a generic version of pegylated liposomal encapsulated doxorubicin. 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 nanomedicine drug candidate is ATI-1123, a novel and new chemical entity which is a nanoparticle-encapsulated form of docetaxel, also a workhorse 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, most likely in conjunction with a development partner. 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 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 providers and their 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. Further, we recently received feedback from a FDA pre-submission meeting, indicating 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. We finalized meeting minutes and we are considering additional dialogue with the FDA to clarify the parameters and key aspects of a potential follow-on clinical trial of Habeo. At this time, we do not have, and are not prepared to commit, the financial and other resources required in order to conduct an additional clinical trial of Habeo, and will instead look to partnering or out-licensing opportunities as a basis for any 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 data is anticipated in the second half of 2018. Additional CCT treatments are in various stages of development in the areas of urology, wounds, and orthopedics. Further, 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, detailed in an announcement on November 13, 2017. Currently, we internally manufacture the Celution devices and consumables in the United States and the United Kingdom and

source our Celase and Intravase reagents from a third-party supplier. We are exploring contract manufacturing organization options for the Celution System to 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. 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.

Summary of the Rights Offering

Securities to be Offered	We are distributing to you, at no charge, one non-transferable Subscription Right to purchase one Unit for every share of our common stock that you owned on the Record Date. Each Unit consists of one share of Series C Preferred Stock and 200 Warrants.
Size of offering	25,000 Units.
Subscription Price	\$1,000 per Unit.
Series C Preferred Stock	Each share of Series C Preferred Stock will be convertible, at our option at any time on or after the first anniversary of the closing of the Rights Offering, 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 \$2.64 per share, subject to adjustment. The Series C Preferred Stock has certain conversion rights, dividend rights and liquidation preferences.
Warrants	Each Warrant entitles the holder to purchase one share of our common stock at an exercise price of \$3.17 per share, subject to adjustment, from the date of issuance through its expiration 30 months from the date of issuance. The Warrants will be exercisable for cash, or, solely during any period when a registration statement for the exercise of the Warrants is not in effect, on a cashless basis, at any time and from time to time after the date of issuance. We plan to apply to list the Warrants on Nasdaq under the symbol "CYTXL," although there is no assurance that a sufficient number of Subscription Rights will be exercised so that the Warrants will meet the minimum listing criteria to be accepted for listing on Nasdaq. We may redeem the Warrants for \$0.01 per Warrant if our common stock closes above \$7.92 per share for 20 consecutive trading days, subject to certain conditions, provided that we may not do so prior to the first anniversary of closing of the Rights Offering.
Record Date	5:00 p.m., Eastern Time, June 26, 2018.
Basic Subscription Rights	Your Basic Subscription Right will entitle you to purchase one Unit at the Subscription Price.
Over-Subscription Privilege	If you exercise your Basic Subscription Rights in full, you may also choose to purchase a portion of any Units that are not purchased by our other stockholders through the exercise of their Basic Subscription Rights, subject to proration and stock ownership limitations described elsewhere in this prospectus.
Expiration date	The Subscription Rights will expire at 5:00 p.m., Eastern Time, on July 13, 2018.
Procedure for Exercising Subscription Rights	<p>To exercise your Subscription Rights, you must take the following steps:</p> <p>If you are a record holder of our common stock, you must deliver payment and a properly completed Rights Certificate to the Subscription Agent to be received before 5:00 p.m., Eastern Time, on July 13, 2018. You may deliver the documents and payments by first class mail or courier service. If you use first class mail for this purpose, we recommend using registered mail, properly insured, with return receipt requested.</p> <p>If you are a beneficial owner of shares that are registered in the name of a broker, dealer, bank or other nominee, you should instruct your broker, dealer, bank or other nominee to exercise your Subscription Rights on your behalf. Please follow the instructions of your nominee, who may require that you meet a deadline earlier than 5:00 p.m., Eastern Time, on July 13, 2018.</p>

Delivery of Shares and Warrants	As soon as practicable after the expiration of the Rights Offering, and within five business days thereof, we expect to close on subscriptions and for the Subscription Agent to arrange for the issuance of the shares of Series C Preferred Stock and Warrants purchased pursuant to the Rights Offering. All shares and Warrants that are purchased in the Rights Offering will be issued in book-entry, or uncertificated, form meaning that you will receive a direct registration, or DRS, account statement from our transfer agent reflecting ownership of these securities if you are a holder of record of shares or warrants. If you hold your shares 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 Rights Offering.
Non-transferability of Subscription Rights	The Subscription Rights may not be sold, transferred, assigned or given away to anyone. The Subscription Rights will not be listed for trading on any stock exchange or market.
Transferability of Warrants	The Warrants will be separately transferable following their issuance and through their expiration 30 months from the date of issuance.
No board recommendation	Our board of directors is not making a recommendation regarding your exercise of the Subscription Rights. You are urged to make your decision to invest based on your own assessment of our business and financial condition, our prospects for the future, the terms of the Rights Offering, the information in this prospectus and other information relevant to your circumstances. Please see “Risk Factors” for a discussion of some of the risks involved in investing in our securities.
No Revocation	All exercises of Subscription Rights are irrevocable, even if you later learn of information that you consider to be unfavorable to the exercise of your Subscription Rights.
Use of Proceeds	Assuming the exercise of Subscription Rights to purchase all 25,000 Units of the Rights Offering, after deducting fees and expenses and excluding any proceeds received upon exercise of any Warrants, we estimate the net proceeds of the Rights Offering will be approximately \$22.8 million. We intend to use up to approximately the first \$12.0 million of the net proceeds from the exercise of Subscription Rights for research and development, including the development of our current oncology pipeline, approximately \$5.0 million to repay a portion of the amount outstanding under the Loan Agreement, and, if funds remain, for further research and development activities. In addition, we intend to use any remaining net proceeds for general corporate purposes, primarily development and sales and marketing initiatives relating to our potential commercialization of our ATI-0918 in Europe, and any other remaining net proceeds for general administrative expenses, working capital and capital expenditures. See “Use of Proceeds.”
Material U.S. Federal Income Tax Consequences	For U.S. federal income tax purposes, we believe you should not recognize income or loss upon receipt of a Subscription Right with respect to your existing shares of common stock, although you will recognize income upon receipt of a Subscription Right with respect to your existing shares of Series B Preferred Stock. You should consult your tax advisor as to the tax consequences of the Rights Offering in light of your particular circumstances. See “Material U.S. Federal Income Tax Consequences.”
Extension and Termination	Although we do not presently intend to do so, we may extend the Rights Offering for additional time in our sole discretion. Our board of directors may for any reason terminate the Rights Offering at any time before the completion of the Rights Offering.
Subscription and Information Agent	Broadridge Corporate Issuer Solutions, Inc.
Questions	If you have any questions about the Rights Offering, please contact the Subscription and Information Agent, Broadridge Corporate Issuer Solutions, Inc., at (855) 793-5068 (toll free).
Market for common stock	Our common stock is listed on Nasdaq under the symbol “CYTX.”

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

Dealer-Manager Maxim Group LLC.

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 Report 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 Rights 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 Rights 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. In addition, the Subscription Rights are non-transferrable.

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 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. However, we may be unable to maintain compliance with our current minimum bid price obligation or other listing requirements, which could cause us to lose eligibility for continued listing on the Nasdaq Capital Market or any comparable trading market.

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 markets 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 elect to exercise your subscription rights. If that occurs, you may have committed to buy shares of our Series C 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 C Preferred Stock and, unless we or you choose to convert your shares of Series C Preferred Stock into shares of common stock, you will not be able to re-sell such shares. We will not pay you interest on funds delivered to the Subscription Agent pursuant to the exercise of Subscription Rights.

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

As of March 31, 2018, we had 6,161,380 shares of our common stock outstanding. Sales of shares of common stock in the public market, including pursuant to the Lincoln Park Purchase Agreement, or our ATM 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 1,173,241 shares of our common stock that we issued in the name of Azaya at the closing of our acquisition of the Cytora 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.

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 Rights Offering.

Stockholders who do not fully exercise their Subscription Rights 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 fully exercised their Subscription Rights. Further, the shares issuable upon the exercise of the Warrants to be issued pursuant to the Rights Offering will dilute the ownership interest of stockholders not participating in this offering or holders of Warrants who have not exercised them.

Further, if you purchase Units in this offering at the Subscription Price, you may suffer immediate and substantial dilution in the net tangible book value of our common stock. See “Dilution” in this prospectus for a more detailed discussion of the dilution which may incur in connection with this offering.

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

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

The Subscription Price, together with the number of shares of common stock we propose to issue and ultimately will issue if this Rights 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 Rights Offering. If that occurs, you may have committed to buy shares of our Series C 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 Rights Offering will have on the market price of our common stock from time to time. Further, if a substantial number of Subscription Rights are exercised and the holders of the shares received upon exercise of those Subscription Rights or the related Warrants choose to sell some or all of the shares underlying the Subscription Rights or the related 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.

If we terminate this offering for any reason, we will have no obligation other than to return subscription monies within 10 business days.

We may decide, in our sole discretion and for any reason, to cancel or terminate the Rights Offering at any time prior to the expiration date. If this offering is cancelled or terminated, we will have no obligation with respect to Subscription Rights that have been exercised except to return within 10 business days, without interest or deduction, all subscription payments deposited with the Subscription Agent. If we terminate this offering and you have not exercised any Subscription Rights, such Subscription Rights will expire and be worthless.

The Subscription Price determined for this offering is not an indication of the fair value of our common stock.

In determining the Subscription 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 Rights Offering, the cost of capital from other sources, the value of the Series C 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 Subscription 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 Subscription Price. You should not consider the Subscription Price as an indication of the value of our company or our common stock.

If you do not act on a timely basis and follow subscription instructions, your exercise of Subscription Rights may be rejected.

Holders of Subscription Rights who desire to purchase shares of our Series C Preferred Stock and Warrants in this offering must act on a timely basis to ensure that all required forms and payments are actually received by the Subscription Agent prior to 5:00 p.m., New York City time, on the expiration date, unless extended. If you are a beneficial owner of shares of common stock or Series B Preferred Stock and you wish to exercise your Subscription Rights, you must act promptly to ensure that your broker, dealer, bank, trustee or other nominee acts for you and that all required forms and payments are actually received by your broker, dealer, bank, trustee or other nominee in sufficient time to deliver such forms and payments to the Subscription Agent to exercise the Subscription Rights granted in this offering that you beneficially own prior to 5:00 p.m., New York City time on the expiration date, as may be extended. We will not be responsible if your broker, dealer, bank, trustee or other nominee fails to ensure that all required forms and payments are actually received by the Subscription Agent prior to 5:00 p.m., New York City time, on the expiration date.

If you fail to complete and sign the required subscription forms, send an incorrect payment amount, or otherwise fail to follow the subscription procedures that apply to your exercise in this Rights Offering, the Subscription Agent may, depending on the circumstances, reject your subscription or accept it only to the extent of the payment received. Neither we nor the Subscription Agent undertakes to contact you concerning an incomplete or incorrect subscription form or payment, nor are we under any obligation to correct such forms or payment.

You may not receive all of the Units for which you subscribe.

While we are distributing to holders of our common stock one Subscription Right for every share of common stock or Series B Preferred Stock (on an as-if-converted-to-common-stock basis) owned on the Record Date, we are only seeking to raise \$25.0 million dollars in gross proceeds in this Rights Offering. As a result, based on 6,161,380 shares of common stock and 357,900 shares of our common stock issuable upon the conversion of shares of Series B Preferred Stock outstanding as of March 31, 2018, we would grant Subscription Rights to acquire 6,519,280 Units but will only accept subscriptions for 25,000 Units. Accordingly, sufficient Units may not be available to honor your subscription in full. If excess Units are available after the exercise of Basic Subscription Rights, holders who fully

exercise their Basic Subscription Rights will be entitled to subscribe for an additional number of Units. Over-Subscription Privileges will be allocated pro rata among Rights holders who over-subscribed, based on the number of over-subscription Units to which they have subscribed. We cannot guarantee that you will receive any or the entire amount of Units for which you subscribed. If for any reason the amount of Units allocated to you is less than you have subscribed for, then the excess funds held by the Subscription Agent on your behalf will be returned to you, without interest, as soon as practicable after the Rights Offering has expired and all prorating calculations and reductions contemplated by the terms of the Rights Offering have been effected, and we will have no further obligations to you.

Unless we otherwise agree in writing, a person or entity, together with related persons or entities, may not exercise Subscription Rights (including Over-Subscription Privileges) to purchase Units that, when aggregated with their existing ownership, would result in such person or entity, together with any related persons or entities, owning in excess of 19.99% of our issued and outstanding shares of common stock following the closing of the transactions contemplated by this Rights Offering. If the amount of shares allocated to you is less than your subscription request, then the excess funds held by the Subscription Agent on your behalf will be returned to you, without interest, as soon as practicable after the Rights Offering has expired and all prorating calculations and reductions contemplated by the terms of the Rights Offering have been effected, and we will have no further obligations to you.

If you make payment of the Subscription Price by personal check, your check may not clear in sufficient time to enable you to purchase shares in this Rights Offering.

Any personal check used to pay for shares and Warrants to be issued in this Rights Offering must clear prior to the expiration date of this Rights Offering, and the clearing process may require five or more business days. If you choose to exercise your Subscription Rights, in whole or in part, and to pay for shares and Warrants by personal check and your check has not cleared prior to the expiration date of this Rights Offering, you will not have satisfied the conditions to exercise your Subscription Rights and will not receive the shares and Warrants you wish to purchase.

The receipt of Subscription Rights, in the case of holders of shares of Series B Preferred Stock, will be, and in the case of holders of shares of common stock, may be treated as a taxable distribution to you.

We believe the distribution of the Subscription Rights in this Rights Offering should be a non-taxable distribution to holders of shares of common stock under Section 305(a) of the Internal Revenue Code of 1986, as amended, or the Code. Please see the discussion on the “Material U.S. Federal Income Tax Consequences” below. This position is not binding on the IRS, or the courts, however. If this Rights Offering is deemed to be part of a “disproportionate distribution” under Section 305 of the Code, your receipt of Subscription Rights in this offering may be treated as the receipt of a taxable distribution to you equal to the fair market value of the Subscription Rights. Any such distribution would be treated as dividend income to the extent of our current and accumulated earnings and profits, if any, with any excess being treated as a return of capital to the extent thereof and then as capital gain. On the other hand, we believe the distribution of the Subscription Rights in this Rights Offering will be treated a taxable distribution to holders of shares of Series B Preferred Stock under Section 305 of the Code. As a result, the distribution of Subscription Rights with respect to the existing shares of Series B Preferred Stock would be a taxable distribution treated in the manner as described below under “Material U.S. Federal Income Tax Consequences —Tax Consequences Applicable to U.S. Holders— Distributions on Series C Preferred Stock and Common Stock.” A non-U.S. holder of Series B Preferred Stock would be subject to withholding tax at a rate of 30% on the fair market value of the Subscription Rights received by such holder on the date of the distribution to the extent of such holder’s share of our current and accumulated earnings and profits, unless (i) such non-U.S. holder is eligible for an exemption or a reduced tax rate under the benefit of an applicable income tax treaty (and appropriate certification is provided) or (ii) the amount treated as a taxable dividend is effectively connected with such non-U.S. holder’s conduct of a trade or business in the United States.

Each holder of shares of common stock or Series B Preferred Stock is urged to consult his, her or its tax advisor with respect to the particular tax consequences of this Rights Offering.

The Subscription Rights are not transferable, and there is no market for the Subscription Rights.

You may not sell, transfer, assign or give away your Subscription Rights. Because the Subscription Rights are non-transferable, there is no market or other means for you to directly realize any value associated with the Subscription Rights. You must exercise the Subscription Rights to realize any potential value from your Subscription Rights.

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 plan to apply to list the Warrants for trading on Nasdaq under the symbol "CYTXL," but there can be no assurance that a sufficient number of Subscription Rights will be exercised so that the Warrants will meet minimum listing criteria to be accepted for listing on Nasdaq or that a market will develop for the Warrants. Even if a market for the Warrants does develop, the price of the Warrants may fluctuate and liquidity may be limited. If the Warrants are not accepted for listing on Nasdaq or 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 C Preferred Stock in this offering.

There is no established public trading market for the Series C Preferred Stock, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the Series C 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 30 months 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.

The Warrants contain features that may reduce your economic benefit from owning them.

The Warrants contain features that allow us to redeem the Warrants and that prohibit you from engaging in certain investment strategies. We may redeem the Warrants for \$0.01 per Warrant once the closing price of our common stock has equaled or exceeded \$7.92 per share, subject to adjustment, for 20 consecutive trading days, subject to certain conditions, provided that we may not do so prior to the first anniversary of closing of the Rights Offering, and only upon not less than 30 days' prior written notice of redemption. If we give notice of redemption, you will be forced to sell or exercise your Warrants or accept the redemption price. The notice of redemption could

come at a time when it is not advisable or possible for you to exercise the Warrants. As a result, you may be unable to benefit from owning the Warrants being redeemed.

The dealer-manager is not underwriting, nor acting as placement agent of, the Subscription Rights or the securities underlying the Subscription Rights.

Maxim Group LLC will act as dealer-manager for this Rights Offering. As provided in the dealer-manager agreement, the dealer-manager will provide marketing assistance in connection with this offering. The dealer-manager is not underwriting or placing any of the Subscription Rights or the shares of our Series C Preferred Stock or Warrants being issued in this offering and is not making any recommendation with respect to such Subscription Rights (including with respect to the exercise or expiration of such Subscription Rights), shares or Warrants. The dealer-manager will not be subject to any liability to us in rendering the services contemplated by the dealer-manager agreement except for any act of bad faith or gross negligence by the dealer-manager. The Rights Offering may not be successful despite the services of the dealer-manager to us in this offering.

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

Assuming that all 25,000 Units are subscribed for in the Rights Offering, we estimate that the net proceeds from the Rights Offering will be approximately \$22.8 million, after deducting expenses relating to this offering payable by us estimated at approximately \$2.2 million, including dealer-manager fees and expenses and excluding any proceeds received upon exercise of any Warrants.

We intend to use approximately the first \$12.0 million of the net proceeds from the exercise of Subscription Rights for research and development, including the development of our current oncology pipeline, approximately \$5.0 million to repay a portion of the amount outstanding under the Loan Agreement, and, if funds remain, for further research and development activities. In addition, we intend to use any remaining net proceeds for general corporate purposes, primarily development and sales and marketing initiatives relating to our potential commercialization of our ATI-0918 in Europe, and any other remaining net proceeds for general administrative expenses, working capital and capital expenditures. We expect to use any proceeds we receive from the exercise of Warrants for substantially the same purposes and in substantially the same manner. Pending these uses, we intend to invest the net proceeds in investment-grade, short-term, interest-bearing securities. 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.

As of March 31, 2018, the outstanding principal balance on our term loan under the Loan Agreement was \$13.0 million. The term loan bears interest at 8.95% per annum and matures on June 1, 2019.

Our management will have broad discretion as to the allocation 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.

DILUTION

Purchasers of Units in the Rights Offering will experience an immediate dilution of the net tangible book value per share of our common stock. Our net tangible book value as of March 31, 2018 was approximately \$(2.3) million, or \$(0.38) per share of our common stock (based upon 6,161,380 shares of our common stock outstanding). Net tangible book value per share is equal to our total tangible assets less our total liabilities, divided by the number of shares of our outstanding common stock.

Dilution per share of common stock equals the difference between the amount per share of common stock paid by purchasers of Units in the Rights Offering (assuming the conversion of shares of Series C Preferred Stock into common stock and ascribing no value to the Warrants contained in the Units) and the net tangible book value per share of our common stock immediately after the Rights Offering.

Based on the sale by us in this Rights Offering of a maximum of 25,000 Units at the Subscription Price of \$1,000 per Unit (assuming the conversion of all shares of Series C Preferred Stock into common stock and no exercise of the Warrants), and after deducting estimated offering expenses and dealer-manager fees and expenses payable by us, our pro forma net tangible book value as of March 31, 2018 would have been approximately \$20.4 million, or \$1.31 per share. This represents an immediate increase in pro forma net tangible book value to existing stockholders of \$1.69 per share and an immediate dilution to purchasers in the Rights Offering of \$1.33 per share. The following table illustrates this per-share dilution:

Subscription Price		\$	1,000
Conversion price per share of Series C Preferred Stock contained in a Unit		\$	2.64
Net tangible book value per share as of March 31, 2018		\$	(0.38)
Increase in net tangible book value per share attributable to Rights Offering		\$	1.69
Pro forma net tangible book value per share as of March 31, 2018, after giving effect to Rights Offering		\$	1.31
Dilution in net tangible book value per share to purchasers in the Rights Offering		\$	1.33

The information above is as of March 31, 2018 and excludes:

- 99,654 shares of common stock issuable upon the exercise of stock options outstanding as of March 31, 2018 with a weighted average exercise price of \$113.24 per share;
- 51 shares of common stock issuable upon the vesting of outstanding restricted stock awards as of March 31, 2018;
- 206,050 shares of common stock available for future grants under our 2014 Equity Incentive Plan as of March 31, 2018;
- 29,316 shares of common stock available for future grants under our 2015 New Employee Incentive Plan as of March 31, 2018;
- 357,900 shares of common stock issuable upon the conversion of outstanding shares of Series B Preferred Stock as of March 31, 2018;
- 2,165,951 shares of our common stock issuable upon the exercise of outstanding warrants as of March 31, 2018 with a weighted-average exercise price of \$9.50 per share;
- the shares of our common stock issuable upon the exercise of the Warrants offered hereby.

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. Our common stock has, from time to time, traded on a limited, sporadic and volatile basis. The following tables show the high and low sales prices for our common stock for the periods indicated, as reported on the Nasdaq Global Market or the Nasdaq Capital Market, as applicable. These prices do not include retail markups, markdowns or commissions.

	Price Ranges	
	High	Low
<i>Fiscal Year Ending December 31, 2018</i>		
First Quarter	\$5.00	\$2.70
Second Quarter (Through June 21, 2018)	\$3.20	\$1.65
<i>Fiscal Year Ended December 31, 2017</i>		
First Quarter	\$19.90	\$15.30
Second Quarter	\$17.20	\$9.20
Third Quarter	\$11.70	\$3.10
Fourth Quarter	\$6.30	\$2.30
<i>Fiscal Year Ended December 31, 2016</i>		
First Quarter	\$33.00	\$19.50
Second Quarter	\$52.50	\$20.00
Third Quarter	\$22.50	\$18.30
Fourth Quarter	\$20.00	\$13.60

The closing price of our common stock on June 21, 2018 was \$2.04 per share. All of our outstanding shares have been deposited with the Depository Trust & Clearing Corporation, or DTCC, since December 2005. As of June 4, 2018, we had approximately 15 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.

THE RIGHTS OFFERING

The Subscription Rights

We are distributing to the record holders of our common stock and holders of our Series B Preferred Stock, at no charge, non-transferable Subscription Rights to purchase one Unit at a subscription price of \$1,000 per Unit. Each Basic Subscription Right will entitle you to purchase one share of our Series C Preferred Stock and 200 Warrants. Each Warrant will be exercisable for one share of our common stock at an exercise price of \$3.17 per share from the date of issuance through the expiration 30 months from the date of issuance. Each record holder of our common stock or Series B Preferred Stock will receive one Subscription Right for every share of our common stock or Series B Preferred Stock (on an as-if-converted-to-common-stock basis) owned by such record holder as of the Record Date. Each Subscription Right entitles the record holder to a Basic Subscription Right and an Over-Subscription Privilege.

Basic Subscription Rights

Your Basic Subscription Rights will entitle you to purchase one share of our Series C Preferred Stock and 200 Warrants. For example, if you owned 100 shares of common stock as of the Record Date, you will receive 100 Subscription Rights and will have the right to purchase 100 shares of our Series C Preferred Stock and Warrants to purchase 20,000 shares of our common stock for \$1,000 per Unit, or a total payment of \$100,000. You may exercise all or a portion of your Basic Subscription Rights, or you may choose not to exercise any of your Basic Subscription Rights. If you do not exercise your Basic Subscription Rights in full, you will not be entitled to exercise your Over-Subscription Privilege.

Over-Subscription Privilege

If you exercise your Basic Subscription Rights in full, you may also choose to exercise your Over-Subscription Privilege. Subject to proration and the limitations described in this prospectus, we will seek to honor the Over-Subscription Requests in full. If Over-Subscription Requests exceed the number of Units available, however, we will allocate the available Units pro rata among the stockholders as of the record date exercising the Over-Subscription Privilege in proportion to the number of shares of our common stock or Series B Preferred Stock each of those stockholders owned on the Record Date, relative to the number of shares owned on the Record Date by all stockholders as of the record date exercising the Over-Subscription Privilege. If this pro rata allocation results in any stockholder receiving a greater number of Units than the record holder subscribed for pursuant to the exercise of the Over-Subscription Privilege, then such record holder will be allocated only that number of Units for which the record holder oversubscribed, and the remaining Units will be allocated among all other stockholders exercising the Over-Subscription Privilege on the same pro rata basis described above. The proration process will be repeated until all Units have been allocated.

Broadridge Corporate Issuer Solutions, Inc., the Subscription Agent for the Rights Offering, will determine the over-subscription allocation based on the formula described above.

To the extent the aggregate subscription payment of the actual number of unsubscribed Units available to you pursuant to the Over-Subscription Privilege is less than the amount you actually paid in connection with the exercise of the Over-Subscription Privilege, you will be allocated only the number of unsubscribed Units available to you, and any excess subscription payments will be returned to you, without interest or deduction, with 10 business days after expiration of the Rights Offering.

We can provide no assurances that you will actually be entitled to purchase the number of Units issuable upon the exercise of your Over-Subscription Privilege in full at the expiration of the Rights Offering. We will not be able to satisfy any requests for Units pursuant to the Over-Subscription Privilege if all of our stockholders exercise their

Basic Subscription Rights in full, and we will only honor an Over-Subscription Privilege to the extent sufficient Units are available following the exercise of Basic Subscription Rights.

Limitation on the Purchase of Units

You may only purchase the number of Units purchasable upon exercise of the number of Basic Subscription Rights distributed to you in the Rights Offering, plus the Over-Subscription Privilege, if any. Accordingly, the number of Units that you may purchase in the Rights Offering is limited by the number of shares of our common stock or Series B Preferred Stock (on an as-if-converted-to-common-stock basis) you held on the Record Date and by the extent to which other stockholders exercise their Basic Subscription Rights and Over-Subscription Privileges, which we cannot determine prior to completion of the Rights Offering. However, due to stock exchange restrictions, we will not issue Units in the Rights Offering to the extent that a holder would beneficially own, together with any other person with whom such holder's securities may be aggregated under applicable law, more than 19.99% of our outstanding shares of common stock.

Subscription Price

The Subscription Price is \$1,000 per Unit. The Subscription Price does not necessarily bear any relationship to our past or expected future results of operations, cash flows, current financial condition, or any other established criteria for value. No change will be made to the Subscription Price by reason of changes in the trading price of our common stock or other factor prior to the expiration of this Rights Offering.

Determination of Subscription Price

In the determining the Subscription Price, the board of directors considered a variety of factors including those listed below:

- 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 Rights Offering;
- the cost of capital from other sources;
- the value of the Series C Preferred Stock being issued as a component of the Unit;
- the value of the Warrant being issued as a component of the Unit;
- comparable precedent transactions, including the percentage of shares offered, the terms of the subscription rights being offered, the subscription price and the discount that the subscription price represents to the immediately prevailing closing prices for these offerings;
- 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 Subscription 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 Subscription Price. You should not consider the Subscription Price as an indication of actual value of our company or our common stock. The market price of our common stock may decline during or after the Rights Offering. There is currently no market for our shares of Series C Preferred Stock and, unless we or you choose to convert your shares of Series C Preferred

Stock into shares of common stock, you will not be able to re-sell such shares. We cannot predict the price at which our shares of common stock and, if listed, the Warrants will trade after the Rights Offering. You should obtain a current price quote for our common stock and perform an independent assessment of our Series C Preferred Stock and Warrants before exercising your Subscription Rights and make your own assessment of our business and financial condition, our prospects for the future, and the terms of this Rights Offering. Once made, all exercises of Subscription Rights are irrevocable.

No Recombination

The Series C Preferred Stock and Warrants comprising the Units will separate upon the exercise of the Subscription Rights, and the Units will not trade as a separate security. Holders may not recombine shares of Series C Preferred Stock and Warrants to receive a Unit.

Non-Transferability of Subscription Rights

The Subscription Rights are non-transferable (other than by operation of law) and, therefore, you may not sell, transfer, assign or give away your Subscription Rights to anyone. The Subscription Rights will not be listed for trading on any stock exchange or market.

Expiration Date; Extension

The subscription period, during which you may exercise your Subscription Rights, expires at 5:00 p.m., Eastern Time, on July 13, 2018, which is the expiration of the Rights Offering. If you do not exercise your Subscription Rights before that time, your Subscription Rights will expire and will no longer be exercisable. We will not be required to issue shares to you if the Subscription Agent receives your Rights Certificate or your subscription payment after that time. We have the option to extend the Rights Offering in our sole discretion, although we do not presently intend to do so. We may extend the Rights Offering by giving oral or written notice to the Subscription Agent before the Rights Offering expires. If we elect to extend the Rights Offering, we will issue a press release announcing the extension no later than 9:00 a.m., Eastern Time, on the next business day after the most recently announced expiration date of the Rights Offering.

If you hold your shares of common stock or Series B Preferred Stock in the name of a broker, dealer, bank or other nominee, the nominee will exercise the Subscription Rights on your behalf in accordance with your instructions. Please note that the nominee may establish a deadline that may be before 5:00 p.m., Eastern Time, on July 13, 2018, which is the expiration date that we have established for the Rights Offering.

Termination

We may terminate the Rights Offering at any time and for any reason prior to the completion of the Rights Offering. If we terminate the Rights Offering, we will issue a press release notifying stockholders and the public of the termination.

Return of Funds upon Completion or Termination

The Subscription Agent will hold funds received in payment for shares in a segregated account pending completion of the Rights Offering. The Subscription Agent will hold this money until the Rights Offering is completed or is terminated. To the extent you properly exercise your Over-Subscription Privilege for an amount of Units that exceeds the number of unsubscribed Units available to you, any excess subscription payments will be returned to you within 10 business days after the expiration of the Rights Offering, without interest or deduction. If

the Rights Offering is terminated for any reason, all subscription payments received by the Subscription Agent will be returned within 10 business days, without interest or deduction.

Shares of Our Capital Stock and Warrants Outstanding After the Rights Offering

Assuming no other transactions by us involving our capital stock prior to the expiration of the Rights Offering, and if the Rights Offering is fully subscribed, upon consummation of the Rights Offering we will have 6,161,380 shares of common stock issued and outstanding, 25,000 shares of Series C Preferred Stock issued and outstanding, and Warrants to purchase an additional 5,000,000 shares of our common stock issued and outstanding, based on 6,161,380 shares of our common stock outstanding as of March 31, 2018. The exact number of shares of Series C Preferred Stock and Warrants that we will issue in this offering will depend on the number of Units that are subscribed for in the Rights Offering.

Methods for Exercising Subscription Rights

The exercise of Subscription Rights is irrevocable and may not be cancelled or modified. You may exercise your Subscription Rights as follows:

Subscription by Record Holders

If you are a stockholder of record, the number of Units you may purchase pursuant to your Subscription Rights is indicated on the enclosed Rights Certificate. You may exercise your Subscription Rights by properly completing and executing the Rights Certificate and forwarding it, together with your full payment, to the Subscription Agent at the address given below under “Subscription Agent,” to be received before 5:00 p.m., Eastern Time, on July 13, 2018.

Subscription by Beneficial Owners

If you are a beneficial owner of shares of our common stock or Series B Preferred Stock that are registered in the name of a broker, dealer, bank or other nominee, you will not receive a Rights Certificate. Instead, we will issue one Subscription Right to such nominee record holder for all shares of our common stock or Series B Preferred Stock (on an as-if-converted-to-common-stock basis) held by such nominee at the Record Date. If you are not contacted by your nominee, you should promptly contact your nominee in order to subscribe for shares in the Rights Offering and follow the instructions provided by your nominee.

To properly exercise your Over-Subscription Privilege, you must deliver the subscription payment related to your Over-Subscription Privilege before the Rights Offering expires. Because we will not know the total number of unsubscribed Units before the Rights Offering expires, if you wish to maximize the number of shares you purchase pursuant to your Over-Subscription Privilege, you will need to deliver payment in an amount equal to the aggregate subscription payment for the maximum number of Units that you wish to purchase.

Payment Method

Payments must be made in full in U.S. currency by personal check, certified check or bank draft, or by wire transfer, and payable to “Broadridge Corporate Issuer Solutions, Inc., as Subscription Agent for Cytospor Therapeutics, Inc.” You must timely pay the full subscription payment, including payment for the Over-Subscription Privilege, for the full number of shares of our common stock you wish to acquire pursuant to the exercise of Subscription Rights by delivering a:

- certified or personal check drawn against a U.S. bank payable to “Broadridge Corporate Issuer Solutions, Inc., as Subscription Agent for Cytori Therapeutics, Inc.”;
- U.S. Postal money order payable to “Broadridge Corporate Issuer Solutions, Inc., as Subscription Agent for Cytori Therapeutics, Inc.”; or
- wire transfer of immediately available funds directly to the account maintained by Broadridge Corporate Issuer Solutions, Inc., as Subscription Agent, for purposes of accepting subscriptions in this Rights Offering at U.S. Bank, 800 Nicollet Mall, Minneapolis, MN 55402, ABA, # 123000848, Account # 153910728465, for further credit Cytori Therapeutics, Inc., Account # 153911608922.

If you elect to exercise your Subscription Rights, you should consider using a wire transfer or certified check drawn on a U.S. bank to ensure that the Subscription Agent receives your funds before the Rights Offering expires. If you send a personal check, payment will not be deemed to have been received by the Subscription Agent until the check has cleared. The clearinghouse may require five or more business days to clear a personal check. Accordingly, holders who wish to pay the Subscription Price by means of a personal check should make payment sufficiently in advance of the expiration of the Rights Offering to ensure that the payment is received and clears by that date. If you send a certified check, payment will be deemed to have been received by the Subscription Agent immediately upon receipt of such instrument.

You should read the instruction letter accompanying the Rights Certificate carefully and strictly follow it. **DO NOT SEND RIGHTS CERTIFICATES OR PAYMENTS DIRECTLY TO US.** We will not consider your subscription received until the Subscription Agent has received delivery of a properly completed and duly executed Rights Certificate and payment of the full subscription payment.

The method of delivery of Rights Certificates and payment of the subscription payment to the Subscription Agent will be at the risk of the holders of Subscription Rights. If sent by mail, we recommend that you send those certificates and payments by registered mail, properly insured, with return receipt requested, or by overnight courier, and that you allow a sufficient number of days to ensure delivery to the Subscription Agent and clearance of payment before the Rights Offering expires.

Missing or Incomplete Subscription Forms or Payment

If you fail to complete and sign the Rights Certificate or otherwise fail to follow the subscription procedures that apply to the exercise of your Subscription Rights before the Rights Offering expires, the Subscription Agent will reject your subscription or accept it to the extent of the payment received. Neither we nor our Subscription Agent undertakes any responsibility or action to contact you concerning an incomplete or incorrect subscription form, nor are we under any obligation to correct such forms.

If you send a payment that is insufficient to purchase the number of shares you requested, or if the number of shares you requested is not specified in the forms, the payment received will be applied to exercise your Subscription Rights to the fullest extent possible based on the amount of the payment received. Any excess subscription payments received by the Subscription Agent will be returned, without interest or deduction, within 10 business days following the expiration of the Rights Offering.

Issuance of Series C Preferred Stock and Warrants

The shares of Series C Preferred Stock and Warrants that are purchased in the Rights Offering as part of the Units will be issued in book-entry, or uncertificated, form meaning that you will receive a DRS account statement from our transfer agent reflecting ownership of these securities if you are a holder of record of shares or warrants. If you hold your shares of common stock or Series B 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 Rights Offering.

Subscription and Information Agent

The Subscription and Information Agent for the Rights Offering is Broadridge Corporate Issuer Solutions, Inc.. The address to which Rights Certificates and payments should be mailed or delivered by overnight courier is provided below. If sent by mail, we recommend that you send documents and payments by registered mail, properly insured, with return receipt requested, and that you allow a sufficient number of days to ensure delivery to the Subscription Agent and clearance or payment before the Rights Offering expires. Do not send or deliver these materials to us.

By mail:

Broadridge Corporate Issuer Solutions, Inc.
Attn: BCIS Re-Organization Dept.
P.O. Box 1317
Brentwood, New York 11717-0693
(855) 793-5068 (toll free)

By hand or overnight courier:

Broadridge Corporate Issuer Solutions, Inc.
Attn: BCIS IWS
51 Mercedes Way
Edgewood, New York 11717
(855) 793-5068

If you deliver the Rights Certificates in a manner different than that described in this prospectus, we may not honor the exercise of your Subscription Rights.

You should direct any questions or requests for assistance concerning the method of subscribing for the shares of our common stock or for additional copies of this prospectus to the Information Agent as follows:

Broadridge Corporate Issuer Solutions, Inc.
(855) 793-5068 (toll free)

Warrant Agent

The warrant agent for the Warrants is Broadridge Corporate Issuer Solutions, Inc.

No Fractional Shares

We will not issue fractional shares of Series C Preferred Stock in the Rights Offering. Subscription Rights holders will only be entitled to purchase a number of Units representing a whole number of shares and Warrants, rounded down to the nearest whole number of shares or Warrants, as applicable, a holder would otherwise be entitled to purchase. Any excess subscription payments received by the Subscription Agent will be returned within 10 business days after expiration of the Rights Offering, without interest or deduction. Similarly, no fractional shares of common stock will be issued in connection with the exercise of a Warrant. Instead, for any such fractional share that would otherwise have been issuable upon exercise of the Warrant, the holder will be entitled to a cash payment equal to the pro-rated per share market price of the common stock on the last trading day preceding the exercise.

Notice to Brokers and Nominees

If you are a broker, dealer, bank or other nominee holder that holds shares of our common stock or Series B Preferred Stock for the account of others on the Record Date, you should notify the beneficial owners of the shares for whom you are the nominee of the Rights Offering as soon as possible to learn their intentions with respect to exercising their Subscription Rights. If a beneficial owner of our common stock or Series B Preferred Stock so instructs, you should complete the Rights Certificate and submit it to the Subscription Agent with the proper subscription payment by the expiration date. You may exercise the number of Subscription Rights to which all beneficial owners in the aggregate otherwise would have been entitled had they been direct holders of our common

stock or Series B Preferred Stock on the Record Date, provided that you, as a nominee record holder, make a proper showing to the Subscription Agent by submitting the form entitled “Nominee Holder Certification,” which is provided with your Rights Offering materials. If you did not receive this form, you should contact our Subscription Agent to request a copy.

Validity of Subscriptions

We will resolve all questions regarding the validity and form of the exercise of your Subscription Rights, including time of receipt and eligibility to participate in the Rights Offering. Our determination will be final and binding. Once made, subscriptions are irrevocable; we will not accept any alternative, conditional, or contingent subscriptions. We reserve the absolute right to reject any subscriptions not properly submitted or the acceptance of which would be unlawful. You must resolve any irregularities in connection with your subscriptions before the expiration date of the Rights Offering, unless we waive them in our sole discretion. Neither we nor the Subscription Agent is under any duty to notify you or your representative of defects in your subscriptions. A subscription will be considered accepted, subject to our right to withdraw or terminate the Rights Offering, only when the Subscription Agent receives a properly completed and duly executed Rights Certificate and any other required documents and the full subscription payment including final clearance of any personal check. Our interpretations of the terms and conditions of the Rights Offering will be final and binding.

Stockholder Rights

You will have no rights as a holder of the shares of our common stock issuable upon conversion of the Series C Preferred Stock issued in the Rights Offering until such Series C Preferred Stock is converted to common stock and such shares of common stock are issued in book-entry form or your account at your broker, dealer, bank or other nominee is credited with the shares of our common stock. Holders of Warrants issued in connection with the Rights Offering will not have rights as holders of our common stock until such Warrants are exercised and the shares of common stock underlying the Warrants are issued to the holder.

Foreign Stockholders

We will not mail this prospectus or Rights Certificates to stockholders with addresses that are outside the United States or that have an army post office or foreign post office address. The Subscription Agent will hold these Rights Certificates for their account. To exercise Subscription Rights, our foreign stockholders must notify the Subscription Agent prior to 5:00 p.m., Eastern Time, on July 13, 2018, the third business day prior to the expiration date, of your exercise of Subscription Rights and provide evidence satisfactory to us, such as a legal opinion from local counsel, that the exercise of such Subscription Rights does not violate the laws of the jurisdiction in which such stockholder resides and payment by a U.S. bank in U.S. dollars before the expiration of the offer. If no notice is received by such time or the evidence presented is not satisfactory to us, the Subscription Rights represented thereby will expire.

No Revocation or Change

Once you submit the Rights Certificate or have instructed your nominee of your subscription request, you are not allowed to revoke or change the exercise or request a refund of monies paid. All exercises of Subscription Rights are irrevocable, even if you learn information about us that you consider to be unfavorable. You should not exercise your Subscription Rights unless you are certain that you wish to purchase shares at the Subscription Price.

U.S. Federal Income Tax Treatment of Rights Distribution

For U.S. federal income tax purposes, we believe holders of shares of our common stock should not recognize income or loss upon receipt of a Subscription Right, although holders of shares of our Series B Preferred Stock will

recognize income upon receipt of a Subscription Right. The exercise of the Subscription Rights in either case should not result in income or loss for U.S. federal income tax purposes. For a detailed discussion, see “Material U.S. Federal Income Tax Consequences.”

No Recommendation to Rights Holders

Our board of directors is not making a recommendation regarding your exercise of the Subscription Rights. Stockholders who exercise Subscription Rights risk investment loss on money invested. There is currently no market for our shares of Series C Preferred Stock and, unless we or you choose to convert your shares of Series C Preferred Stock into shares of common stock, you will not be able to re-sell such shares. We cannot predict the price at which our shares of common stock and, if listed, the Warrants will trade after the Rights Offering. You should make your investment decision based on your assessment of our business and financial condition, our prospects for the future and the terms of this Rights Offering. Please see “Risk Factors” for a discussion of some of the risks involved in investing in our common stock.

Fees and Expenses

We will pay all fees charged by the Subscription Agent and the Information Agent, and by the dealer-manager. You are responsible for paying any other commissions, fees, taxes or other expenses incurred in connection with the exercise of your Subscription Rights.

Listing

The Subscription Rights may not be sold, transferred, assigned or given away to anyone, and will not be listed for trading on any stock exchange or market. There is no established public trading market for the Series C Preferred Stock and we do not intend to apply for listing of Series C Preferred Stock on any securities exchange or recognized trading system. We plan to apply to have the Warrants listed for trading on Nasdaq under the symbol “CYTXL,” however, there is no assurance that a sufficient number of Subscription Rights will be exercised so that the Warrants will meet the minimum listing criteria to be accepted for listing on Nasdaq. The shares of our common stock issuable upon conversion of the Series C Preferred Stock and underlying the Warrants to be issued in the Rights Offering are traded on Nasdaq under the symbol “CYTX.”

Important

Do not send Rights Certificates directly to us. You are responsible for choosing the payment and delivery method for your Rights Certificate and you bear the risks associated with such delivery. If you choose to deliver your Rights Certificate and payment by mail, we recommend that you use registered mail, properly insured, with return receipt requested. We also recommend that you allow a sufficient number of days to ensure delivery to the Subscription Agent and clearance of payment prior to the expiration time.

Distribution Arrangements

Maxim Group LLC is the dealer-manager for the Rights Offering. The dealer-manager will provide marketing assistance and advice to us in connection with the Rights Offering and will use its best efforts to solicit the exercise of Subscription Rights and participation in the Over-Subscription Privilege. The dealer-manager is not underwriting or placing any of the Subscription Rights or the shares of our Series C Preferred Stock or Warrants to be issued in the Rights Offering and does not make any recommendation with respect to such Subscription Rights (including with respect to the exercise or expiration of such Subscription Rights), shares or Warrants. We have agreed to pay the dealer-manager certain fees and to reimburse the dealer-manager for certain out-of-pocket expenses incurred in connection with this offering. See “Plan of Distribution.”

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES

The following discussion is a summary of the material U.S. federal income tax consequences of the receipt and exercise (or expiration) of the Subscription Rights acquired through the Rights Offering, the ownership and disposition of shares of our Series C Preferred Stock and Warrants received upon exercise of the Subscription Rights or the ownership and disposition of the shares of common stock received upon the conversion of our Series C 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 the Subscription Rights, shares of our Series C 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 receipt of Subscription Rights acquired through the Rights Offering by persons holding shares of our common stock, the exercise (or expiration) of the Subscription Rights, the acquisition, ownership and disposition of shares of our Series C Preferred Stock, the acquisition, ownership and disposition (or expiration) of Warrants acquired upon exercise of the Subscription Rights, and the acquisition, ownership and disposition of shares of our common stock acquired upon conversion of our Series C Preferred Stock or exercise of the Warrants.

This discussion is limited to holders that hold the Subscription Rights, shares of our Series C Preferred Stock, Warrants and shares of our common stock, in each case, 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 the Subscription Rights, shares of our Series C 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 the Subscription Rights, shares of Series C 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 the Subscription Rights, shares of our Series C 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 the Subscription Rights, shares of our Series C 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 our common stock, Subscription Rights, shares of our Series C Preferred Stock and Warrants acquired upon exercise of Subscription Rights or shares of our common stock acquired upon conversion of our Series C Preferred Stock or exercise of the Warrants, as the case may be, 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 RECEIPT, OWNERSHIP AND EXERCISE OF SUBSCRIPTION RIGHTS AND THE ACQUISITION, OWNERSHIP, AND DISPOSITION OF SHARES OF OUR SERIES C PREFERRED STOCK AND WARRANTS ACQUIRED UPON EXERCISE OF SUBSCRIPTION RIGHTS AND SHARES OF OUR COMMON STOCK ACQUIRED UPON CONVERSION OF SERIES C PREFERRED STOCK OR EXERCISE OF 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.

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 shares of our common stock Subscription Rights, shares of our Series C Preferred Stock and Warrants acquired upon exercise of Subscription Rights or shares of our common stock acquired upon conversion of our Series C Preferred Stock or exercise of Warrants, as the case may be, 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.

Receipt of Subscription Rights

Section 305(a) of the Code states that a stockholder's taxable income does not include in-kind stock dividends. The general non-recognition rule in Section 305(a) of the Code is, however, subject to exceptions described in Section 305(b) of the Code, which include "disproportionate distributions" and certain distributions with respect to certain preferred stock. A disproportionate distribution is a distribution or a series of distributions, including deemed distributions, that has the effect of the receipt of cash or other property by some stockholders or holders of debt instruments convertible into stock and an increase in the proportionate interest of other stockholders in a corporation's assets or earnings and profits.

Although the authorities governing transactions such as this Rights Offering are complex and do not speak directly to the consequences of certain aspects of this Rights Offering, including the inclusion of the right to purchase Warrants in the Subscription Rights (rather than the right to purchase only shares of our Series C Preferred Stock) and the effects of the Over-Subscription Privilege, we do not believe a U.S. holder's receipt of Subscription Rights pursuant to the Rights Offering should be treated as a taxable distribution with respect to their existing shares of common stock for U.S. federal income tax purposes. Our position regarding the tax-free treatment of the receipt of Subscription Rights with respect to existing shares of common stock is not binding on the IRS or the courts. If this position were finally determined by the IRS or a court to be incorrect, whether on the basis that the issuance of the Subscription Rights is a "disproportionate distribution" or otherwise, the fair market value of the Subscription Rights would be taxable to U.S. holders of our common stock in the manner described below under "—Tax Consequences Applicable to U.S. Holders— Distributions on Series C Preferred Stock and Common Stock." If our position were incorrect, the U.S. federal income tax consequences applicable to the holders may also be materially different than as described below.

On the other hand, we believe a U.S. holder who receives Subscription Rights pursuant to the Rights Offering with respect to their existing shares of Series B Preferred Stock will be treated as having received a taxable distribution equal to the fair market value, if any, of such Subscription Rights. Any such taxable distribution would be taxable in the manner described below under "—Tax Consequences Applicable to U.S. Holders— Distributions on Series C Preferred Stock and Common Stock."

The following discussion is based upon the treatment of the Subscription Right issuance as a non-taxable distribution with respect to a U.S. holder's existing shares of common stock for U.S. federal income tax purposes and as a taxable distribution with respect to a U.S. holder's existing shares of Series B Preferred Stock for U.S. federal income tax purposes.

Tax Basis and Holding Period in the Subscription Rights

If the fair market value of the Subscription Rights a U.S. holder receives with respect to existing shares of common stock is less than 15% of the fair market value of the U.S. holder's existing shares of common stock (with respect to which the Subscription Rights are distributed) on the date the U.S. holder receives the Subscription Rights, the Subscription Rights will be allocated a zero tax basis for U.S. federal income tax purposes, unless the U.S. holder elects to allocate its tax basis in its existing shares of common stock between its existing shares of common stock and the Subscription Rights in proportion to the relative fair market values of the existing shares of common stock and the Subscription Rights determined on the date of receipt of the Subscription Rights. If a U.S. holder chooses to allocate tax basis between its existing common shares and the Subscription Rights, the U.S. holder must make this election on a statement included with its timely filed tax return (including extensions) for the taxable year in which the U.S. holder receives the Subscription Rights. Such an election is irrevocable. However, if the fair market value of the Subscription Rights a U.S. holder receives is 15% or more of the fair market value of their existing shares of common stock on the date the U.S. holder receives the Subscription Rights, then the U.S. holder must allocate its tax basis in its existing shares of common stock between those shares and the Subscription Rights the U.S. holder receives in proportion to their fair market values determined on the date the U.S. holder receives the Subscription Rights. The holding period of Subscription Rights received will include a holder's holding period in shares of common stock with respect to which the Subscription Rights were distributed. Please refer to discussion

below regarding the U.S. tax treatment of a U.S. holder that, at the time of the receipt of the Subscription Right, no longer holds the common stock with respect to which the Subscription Right was distributed.

A U.S. holder's tax basis in the Subscription Rights received with respect to their existing shares of Series B Preferred Stock would be equal to their fair market value on the date of distribution, and the holding period in the Subscription Rights would begin on the day after receipt.

The fair market value of the Subscription Rights on the date that the Subscription Rights are distributed is uncertain, and we have not obtained, and do not intend to obtain, an appraisal of the fair market value of the Subscription Rights on that date. In determining the fair market value of the Subscription Rights, U.S. holders should consider all relevant facts and circumstances, including any difference between the Subscription Price of the Subscription Rights and the trading price of our shares of common stock on the date that the Subscription Rights are distributed, the fair market value of the Series C Preferred Stock, the exercise price of the Warrants, the length of the period during which the Subscription Rights may be exercised and the fact that the Subscription Rights are non-transferable.

Exercise of Subscription Rights

Generally, a U.S. holder will not recognize gain or loss upon the exercise of a Subscription Right received in the Rights Offering. A U.S. holder's adjusted tax basis, if any, in the Subscription Right plus the Subscription Price should be allocated between the new share of Series C Preferred Stock and the Warrant acquired upon exercise of the Subscription Right in proportion to their relative fair market values on the exercise date. This allocation will establish the U.S. holder's initial tax basis for U.S. federal income tax purposes in the new shares of Series C Preferred Stock and Warrants received upon exercise. The holding period of a share of Series Preferred Stock or a Warrant acquired upon exercise of a Subscription Right in the Rights Offering will begin on the date of exercise.

If, at the time of the receipt or exercise of the Subscription Right, the U.S. holder no longer holds the common stock with respect to which the Subscription Right was distributed, then certain aspects of the tax treatment of the receipt and exercise of the Subscription Right are unclear, including (1) the allocation of the tax basis between the shares of our common stock previously sold and the Subscription Right, (2) the impact of such allocation on the amount and timing of gain or loss recognized with respect to the shares of our common stock previously sold, and (3) the impact of such allocation on the tax basis of the shares of our Series C Preferred Stock and Warrants acquired upon exercise of the Subscription Right. If a U.S. holder exercises a Subscription Right received in the Rights Offering after disposing of shares of our common stock with respect to which the Subscription Right is received, the U.S. holder should consult its tax advisor.

Expiration of Subscription Rights

If a U.S. holder that receives Subscription Rights with respect to their common stock allows such Subscription Rights received in the Rights Offering to expire, the U.S. holder should not recognize any gain or loss for U.S. federal income tax purposes, and the U.S. holder should re-allocate any portion of the tax basis in its existing common shares previously allocated to the Subscription Rights that have expired to the existing common shares.

If a U.S. holder that receives Subscription Rights with respect to their Series B Preferred Stock allows such Subscription Rights received in the Rights Offering to expire, the U.S. holder would recognize a capital loss equal to its basis in such Subscription Rights. The deductibility of capital losses is subject to limitations.

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 at any time during the period in which a U.S. holder holds Warrants, we were to pay a taxable dividend to our stockholders and, in accordance with the anti-dilution provisions of the Warrants, the exercise price of the Warrants were decreased, that decrease would be deemed to be the payment of a taxable dividend to a U.S. holder of the Warrants to the extent of our earnings and profits, notwithstanding the fact that such holder will not receive a cash payment. If the exercise price is adjusted in certain other circumstances (or in certain circumstances, there is a failure to make adjustments), such adjustments may also 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 C 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 C Preferred Stock or common stock in the foreseeable future. However, if we do make distributions of cash or property on our Series C 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 C 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 C Preferred Stock and Common Stock

Upon a sale, exchange, or other disposition of our Series C 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 C Preferred Stock or our common stock. The U.S. holder’s adjusted tax basis in our Series C Preferred Stock generally will equal its cost for the Series C 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 its initial tax basis in our common stock (discussed below under “—Conversion of the Series C 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 C Preferred Stock or our common stock exceeded one year at the time of disposition (see the discussion below under “—Conversion of Our Series C 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 C 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 C 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 C 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 C Preferred Stock prior to conversion.

In the event a U.S. holder’s Series C 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 C Preferred Stock.” U.S. holders should consult their own tax advisors to determine the specific tax treatment of a conversion under such circumstances.

Constructive Dividends on Series C Preferred Stock

The conversion rate of our Series C Preferred Stock is subject to adjustment under certain circumstances, as described above under “Description of Securities —Series C Preferred Stock.” Section 305(c) of the Code and Treasury regulations thereunder will treat a U.S. holder of our Series C 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 C Preferred Stock and Common Stock,” if and to the extent that certain adjustments in the conversion rate (or failures to make such an adjustment) increase 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 C 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 C 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 C 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, in the case of holders of Series B Preferred Stock, Subscription Rights) or receives proceeds from the sale or other taxable disposition of the Warrants, shares of our Series C Preferred Stock acquired through the exercise of Subscription Rights or shares of our common stock acquired through conversion of our Series C Preferred Stock or exercise of the Warrants. 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 the Subscription Rights, shares of our Series C Preferred Stock, 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.

Receipt, Exercise and Expiration of the Subscription Rights

The discussion assumes that the receipt of Subscription Rights with respect to existing shares of common stock will be treated as a nontaxable distribution and the receipt of Subscription Rights with respect to existing shares of Series B Preferred Stock will be treated as a taxable distribution. See “— Tax Consequences Applicable to U.S. Holders – Receipts of Subscription Rights” above. Non-U.S. holders that receive Subscription Rights with respect to existing shares of common stock will generally not be subject to U.S. federal income tax (or any withholding thereof) on the receipt, exercise or expiration of the Subscription Rights. Non-U.S. holders that receive Subscription Rights with respect to their existing shares of Series B Preferred Stock will, on the other hand, be subject to the rules described below under “—Distributions on Series C Preferred Stock and Common Stock.”.

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 C 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 C Preferred Stock or common stock in the foreseeable future. However, if at any time during the period in which a non-U.S. holder holds Warrants we were to pay a taxable dividend to our stockholders and, in accordance with the anti-dilution provisions of the Warrants, the exercise price of the Warrants were decreased, that decrease would be deemed to be the payment of a taxable dividend to a non-U.S. holder to the extent of our earnings and profits, notwithstanding the fact that such holder will not receive a cash payment. If the exercise price is adjusted in certain other circumstances (or in certain circumstances, there is a failure to make adjustments), such adjustments may also result in the deemed payment of a taxable dividend to a non-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 C 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 C Preferred Stock or common stock in the foreseeable future. However, if we do make distributions of cash or property on our Series C 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 C 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 C 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 C 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 C 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 C 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 C 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 C 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 C 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 C Preferred Stock.

Constructive Dividends on Series C Preferred Stock

As described above under “— Tax Consequences Applicable to U.S. Holders — Constructive Dividends on Series C 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 C 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 C 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 C Preferred Stock or common stock we make to the non-U.S. holder and, in the case of holders of Series B Preferred Stock, the distribution of Subscription Rights, 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 C Preferred Stock, Warrants and our common stock to the non-U.S. holder and, in the case of holders of Series B Preferred Stock, the distribution of Subscription Rights, 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 C 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 C 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 C 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 and, in the case of holders of Series B Preferred Stock, the distribution of Subscription Rights) or gross proceeds from the sale or other disposition of our Series C 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), and will apply to payments of gross proceeds from the sale or other disposition of our Series C Preferred Stock, Warrants or our common stock on or after January 1, 2019. 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.

DESCRIPTION OF SECURITIES

In this offering, we are offering for sale 25,000 Units, with each Unit consisting of one share of Series C Preferred Stock and 200 Warrants. Each Warrant will be exercisable for one share of our common stock. The shares of Series C 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 C Preferred Stock and exercise of the Warrants. These securities are being issued pursuant to a dealer-manager agreement between us and the dealer-manager. You should review the dealer-manager agreement, certificate of designation for the Series C 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 C Preferred Stock and the Warrants. The following brief summary of the material terms and provisions of the Series C Preferred Stock and the Warrants is subject to, and qualified in its entirety by, the certificate of designation for the Series C Preferred Stock and the form of Warrant.

Preferred Stock

We have 5,000,000 shares of authorized preferred stock, \$0.001 par value, 23,500 shares of which were issued and 1,203 of which were outstanding as of March 31, 2018. Of this amount, 13,500 shares have been designated Series A 3.6% Convertible Preferred Stock, none of which are outstanding, and 10,000 shares have been designated Series B Convertible Preferred Stock, 1,203 shares of which are outstanding, in each case as of March 31, 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.

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 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

We will authorize the Series C Preferred Stock by filing a certificate of designation with the Secretary of State of the State of Delaware. The certificate of designation may be authorized by our board of directors without approval by our stockholders.

Conversion. Each share of Series C Preferred Stock will be convertible, at our option at any time on or after the first anniversary of the closing of the Rights Offering, 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 \$2.64 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 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.

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 shall be 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.

Warrants

Warrants Included in Units Issuable in the Rights Offering

The Warrants to be issued as a part of this Rights Offering will be designated as our “Series T” warrants. These Warrants will be separately transferable following their issuance and through their expiration 30 months from the date of issuance. Each Warrant will entitle the holder to purchase one share of common stock at an exercise price of \$3.17 per share from the date of issuance through its expiration. We plan to apply to have the Warrants listed for trading on Nasdaq under the symbol “CYTXL,” however, there is no assurance that a sufficient number of Subscription Rights will be exercised so that the Warrants will meet the minimum listing criteria to be accepted for listing on Nasdaq. The common stock underlying the Warrants, upon issuance, will also be traded on Nasdaq under the symbol “CYTX.”

All Warrants that are purchased in the Rights Offering as part of the Units will be issued in book-entry, or uncertificated, form meaning that you will receive a DRS account statement from our transfer agent reflecting ownership of Warrants if you are a holder of record. The Subscription Agent will arrange for the issuance of the Warrants as soon as practicable after the closing, which will occur as soon as practicable after the Rights Offering has expired but which may occur up to five business days thereafter. At closing, all prorating calculations and reductions contemplated by the terms of the Rights Offering will have been effected and payment to us for the subscribed-for Units will have cleared. If you hold your shares of common stock or Series B Preferred Stock, as applicable, in the name of a bank, broker, dealer, or other nominee, DTC will credit your account with your nominee with the Warrants you purchased in the Rights Offering.

Exercisability. Each Warrant will be exercisable at any time and from time to time after the date of issuance and will expire 30 months from the date of issuance. The Warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and payment in full for the number of shares of our common stock purchased upon such exercise, except in the case of a cashless exercise as discussed below.

Cashless Exercise. If at the time of exercise there is no effective registration statement registering, or the prospectus contained therein is not available for issuance of, the shares issuable upon exercise of the Warrant, the holder may exercise the Warrant on a cashless basis. When exercised on a cashless basis, a portion of the Warrant is cancelled in payment of the purchase price payable in respect of the number of shares of our common stock purchasable upon such exercise.

Exercise Price. Each Warrant represents the right to purchase one share of common stock at an exercise price of \$3.17 per share. In addition, the exercise price per share is subject to adjustment for stock dividends, distributions, subdivisions, combinations, or reclassifications, and for certain dilutive issuances. Subject to limited exceptions, a holder of Warrants will not have the right to exercise any portion of the Warrant to the extent that, after giving effect to the exercise, the holder, together with its affiliates, would beneficially own in excess of 4.99% of the number of shares of our common stock outstanding immediately after giving effect to its exercise, except that a holder of Warrants may, upon notice to us, increase such percentage to up to 9.99% (such percentage, the Warrant holder’s “Maximum Percentage”).

Transferability. Subject to applicable laws and restrictions, a holder may transfer a Warrant upon surrender of the Warrant to us with a completed and signed assignment in the form attached to the Warrant. The transferring holder will be responsible for any tax that liability that may arise as a result of the transfer.

Exchange Listing. We plan to apply to list the Warrants on Nasdaq under the symbol “CYTXL,” although there is no assurance that a sufficient number of Subscription Rights will be exercised so that the Warrants will meet the minimum listing criteria to be accepted for listing on Nasdaq.

Rights as Stockholder. Except as set forth in the Warrant, the holder of a Warrant, solely in such holder’s capacity as a holder of a Warrant, will not be entitled to vote or to any of the other rights of our stockholders.

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 exercise of the Warrants, the holders of the Warrants 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 exercise of the Warrants.

Dividends. Holders of Warrants shall be 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.

Redemption Rights. We may redeem the Warrants for \$0.01 per Warrant if our common stock closes above \$7.92 per share for 20 consecutive trading days, subject to certain conditions, provided that we may not do so prior to the first anniversary of closing of the Rights Offering and we may not do so if the redemption would cause the Warrant holder to exceed such Warrant holder’s Maximum Percentage.

Amendments and Waivers. The provisions of the Warrants may be modified or amended or the provisions thereof waived with the written consent of us and the holders of a majority of the outstanding Warrants.

The Warrants will be issued pursuant to a warrant agent agreement by and between us and Broadridge Corporate Issuer Solutions, Inc., the warrant agent.

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 March 31, 2018, there were 6,161,380 shares of common stock issued and outstanding, warrants to purchase 2,165,951 shares of common stock outstanding, options to purchase 99,654 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.”

Possible Anti-Takeover Effects of Delaware Law and our Certificate of Incorporation and Bylaws

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 and Warrant Agent

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

PLAN OF DISTRIBUTION

On or about June 29, 2018, we will distribute the Subscription Rights, Rights Certificates and copies of this prospectus to the holders of our common stock or Series B Preferred Stock on the Record Date. Subscription Rights holders who wish to exercise their Subscription Rights and purchase Units must complete the Subscription Rights Certificate and return it with payment for the shares to the Subscription Agent at the following address:

By mail:

Broadridge Corporate Issuer Solutions, Inc.
Attn: BCIS Re-Organization Dept.
P.O. Box 1317
Brentwood, New York 11717-0693
(855) 793-5068 (toll free)

By hand or overnight courier:

Broadridge Corporate Issuer Solutions, Inc.
Attn: BCIS IWS
51 Mercedes Way
Edgewood, New York 11717
(855) 793-5068

If you have any questions, you should contact our Information Agent for the Rights Offering:

Broadridge Corporate Issuer Solutions, Inc.
(855) 793-5068 (toll free)

Other than as described in this prospectus, we do not know of any existing agreements between any stockholder, broker, dealer, underwriter or agent relating to the sale or distribution of the underlying securities.

Maxim Group LLC is the dealer-manager of this Rights Offering. In such capacity, such dealer-manager will provide marketing assistance and financial advice (including determining the Subscription Price and the structure of the Rights Offering) to us in connection with this offering and will solicit the exercise of Subscription Rights and participation in the Over-Subscription Privilege. The dealer-manager will provide us with updated investor feedback and recommendations on pricing and structure through to the end of the subscription period. The dealer-manager is not underwriting or placing any of the Subscription Rights or the shares of our Series C Preferred Stock or Warrants being issued in this offering and does not make any recommendation with respect to such Subscription Rights (including with respect to the exercise or expiration of such Subscription Rights), shares or Warrants.

In connection with this Rights Offering, we have agreed to pay fees to Maxim Group LLC as dealer-manager a cash fee equal to (a) 6% of the gross proceeds received by us directly from exercises of the Subscription Rights if the amount of such gross proceeds is less than \$12 million or (b) 7% of the gross proceeds received by us directly from exercises of the Subscription Rights if the amount of such gross proceeds is at least \$12 million. We advanced \$20,000 to Maxim Group LLC against reimbursement of accountable expenses upon their engagement as a dealer-manager, or the Advance, and agreed to reimburse the reasonable fees and expenses (including legal fees) of the dealer-manager up to \$75,000. Any portion of the Advance will be returned to us to the extent it is not actually incurred. In addition, upon closing of the Rights Offering, for a period of 12 months following the commencement of sales of the offering, Maxim Group LLC will have a "right of participation" to serve at a minimum as a "co-manager" or "co-placement agent", as the case may be, for any and all future public and private equity offerings with economics of no less than 20%.

We have also agreed to indemnify the dealer-manager and its respective affiliates against certain liabilities arising under the Securities Act of 1933, as amended. The dealer-manager's participation in this offering is subject to customary conditions contained in the dealer-manager agreement, including the receipt by the dealer-manager of an opinion of our counsel. The dealer-manager and its affiliates may provide to us from time to time in the future in the ordinary course of their business certain financial advisory, investment banking and other services for which they will be entitled to receive fees.

Maxim Group LLC is a broker-dealer and member of the Financial Industry Regulatory Authority, Inc. The principal business address of Maxim Group LLC is 405 Lexington Avenue, New York, New York 10174.

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 dealer-manager is being represented by Ellenoff Grossman & Schole LLP, New York, New York.

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 quarter ended March 31, 2018, filed on May 11, 2018;
- 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 and June 20, 2018; 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

Subscription Rights to Purchase Up to 25,000 Units
Consisting of an Aggregate of Up to 25,000 Shares of Series C Preferred Stock
and Warrants to Purchase Up to 5,000,000 Shares of Common Stock
at a Subscription Price of \$1,000 Per Unit

Dealer-Manager

Maxim Group LLC

June 22, 2018