



OCTOBER 17, 2017
SPECIAL MEETING

SUPPLEMENTAL
PROXY

NASDAQ: CYTR

CytRx Corporation

11726 San Vicente Boulevard, Suite 650
Los Angeles, California 90049

DEAR STOCKHOLDER:

As you know, CytRx Corporation (the “Company”) is holding a special meeting of its stockholders (the “Special Meeting”) on Tuesday October 17, 2017, at 10:00 a.m., local time, at the offices of Loeb & Loeb LLP, 10100 Santa Monica Blvd., 18th Floor, Los Angeles, CA 90067. The purpose of the Special Meeting is for our stockholders to consider and vote upon a proposal to approve amendments to our Restated Certificate of Incorporation (“Restated Certificate”) to (i) effect a reverse stock split with respect to the issued and outstanding common stock, \$0.001 par value per share (the “Common Stock”), (ii) if and when such reverse stock split is effected, reduce the number of authorized shares of Common Stock by one-sixth to 41,666,666 and (iii) if and when such reverse stock split is effected, reduce the number of authorized shares of preferred stock, \$0.01 par value per share (the “Preferred Stock”) by one-sixth to 833,333. We are proposing a reverse stock split with respect to our Common Stock in order to facilitate the continued listing of our Common Stock on the Nasdaq Capital Market (“Nasdaq”) by providing our Common Stock with the opportunity for higher share prices based on fewer shares outstanding. As we have previously disclosed to our stockholders, we believe that Nasdaq will delist our Common Stock if we are unable to maintain a closing bid price for our Common Stock at or in excess of \$1.00 per share for at least 10 consecutive business days. We believe that a delisting from Nasdaq would not be in the best interests of our stockholders. We are proposing proportionate reductions in our authorized Common Stock and Preferred Stock to correspond to the proposed reverse stock split of our issued and outstanding Common Stock.

On or about September 5, 2017, the Company mailed to you a detailed proxy statement that contains a description of the item on which you have been asked to vote (the “Definitive Proxy Statement”). The attached supplement contains additional information that supplements and amends the Definitive Proxy Statement. The Company urges you to read this supplement, together with the Definitive Proxy Statement previously sent to you regarding the proposed item, carefully and in its entirety. This proxy supplement (the “Supplement”) is being sent to you on or about September 13, 2017.

In the Definitive Proxy Statement, the Company proposed to amend its Restated Certificate to effect a one-for-six (1-for-6) reverse stock split whereby every six (6) shares of the Company's issued and outstanding Common Stock would be combined into one (1) share (the “Reverse Stock Split”), and (ii) if and when the Reverse Stock Split is effected, reduce the number of authorized shares of common stock by one-half to 125,000,000 shares (the “Original Proposal”). Based on feedback from stockholders received after we filed the Definitive Proxy Statement, the Company's Board of Directors determined that it is in the best interests of the Company to amend in part the Original Proposal (the “Amended Proposal”) (i) to reduce by one-sixth to 41,666,666 shares (instead of by one-half to 125,000,000 shares) the number of authorized shares of Common Stock following the implementation of the Reverse Stock Split and (ii) to reduce by one-sixth to 833,333 shares the number of authorized shares of Preferred Stock following the implementation of the Reverse Stock Split. Our Board of Directors recommends that you vote “FOR” the Amended Proposal.

The Special Meeting is being held now for the following purposes:

1. To approve an amendment to our Restated Certificate of Incorporation to (i) effect a one-for-six (1-for-6) reverse stock split whereby every six (6) shares of the Company's issued and outstanding common stock, \$0.001 par value per share (the “Common Stock”), shall be combined into one (1) share (the “Reverse Stock Split”), (ii) if and when the Reverse Stock Split is effected, reduce the number of authorized shares of common stock by one-sixth to 41,666,666 shares and (iii) if and when the Reverse Stock Split is effected, reduce the number of authorized shares of Preferred Stock by one-sixth to 833,333 shares;

- 2 The transaction of such other business as may properly come before the Special Meeting and at any postponement or adjournment thereof.

A replacement “supplemental proxy card” setting forth the Amended Proposal for which votes can be cast is enclosed.

It is important that your shares of the Company are represented at the Special Meeting. Whether or not you plan to attend the Special Meeting, we urge you to read carefully this entire Supplement and the Definitive Proxy Statement and vote your shares. Approval of the proposed amendments to our Restated Certificate requires the affirmative vote of the holders of at least a majority of the outstanding shares of Common Stock. If you "Abstain" from voting on the Amended Proposal, it will have the same effect as an "Against" vote on the Amended Proposal.

Regardless of whether you expect to attend the Special Meeting, please complete, date and sign the accompanying replacement form of proxy and return it promptly in the enclosed return envelope, or follow the instructions on the enclosed form of proxy to vote your proxy by telephone or Internet. If you grant a proxy, you may revoke it at any time prior to the Special Meeting or nevertheless vote in person at the Special Meeting. **IF YOU SENT IN THE PRIOR WHITE PROXY CARD OR VOTED YOUR PROXY BY TELEPHONE OR INTERNET, IT WILL NOT BE COUNTED. YOU MUST SEND IN THE REPLACEMENT “SUPPLEMENTAL PROXY CARD” OR FOLLOW THE VOTING INSTRUCTIONS ON THE SUPPLEMENTAL PROXY CARD AND VOTE AGAIN BY TELEPHONE OR INTERNET, OR VOTE IN PERSON FOR YOUR VOTE TO BE COUNTED.**

We look forward to seeing you at the Special Meeting. Thank you for your continued support.

BY ORDER OF THE BOARD OF DIRECTORS,



John Caloz
Chief Financial Officer

Dated: September 13, 2017

**SUPPLEMENT
TO
PROXY STATEMENT DATED SEPTEMBER 5, 2017
FOR
SPECIAL MEETING OF STOCKHOLDERS
OF
CYTRX CORPORATION**

The date of this Supplement is September 13, 2017

CytRx Corporation. (the “Company”) is furnishing this supplement dated September 13, 2017 (the “Supplement”) to its proxy statement dated September 5, 2017 (“Definitive Proxy Statement”) in connection with its Special Meeting of Stockholders to be held on Tuesday October 17, 2017, at 10:00 a.m., local time, at the offices of Loeb & Loeb LLP, 10100 Santa Monica Blvd., 18th Floor, Los Angeles, CA 90067 in order to supplement and amend the Definitive Proxy Statement and the original Proposal set forth therein entitled--“Approval of Amendment to the CytRx Corporation Restated Certificate of Incorporation to Effect a One-For-Six (1-for-6) Reverse Stock Split and Decrease in Authorized Shares of Common Stock” (i) to reduce the number of authorized shares of common stock, par value \$0.001 per share (“Common Stock”) following the implementation of the Reverse Stock Split by one-sixth to 41,666,666 shares (instead of by one-half to 125,000,000 shares) and (ii) to reduce the number of authorized shares of preferred stock, par value \$0.01 per share (“Preferred Stock”) following the implementation of the Reverse Stock Split by one-sixth to 833,333 shares.

Except as specifically supplemented by the information contained in this supplement, all information set forth in the Definitive Proxy Statement remains unchanged. We urge you to read this Supplement carefully and in its entirety together with the Definitive Proxy Statement. The Definitive Proxy Statement is available on the internet at www.cytrx.com or through the SEC’s electronic data system called EDGAR at www.sec.gov. From and after the date of this Supplement, all references to the “Proxy Statement” are to the Definitive Proxy Statement as supplemented by this Supplement.

If you have already submitted a proxy card or voting instruction form on the original Proposal, please complete, sign and date the enclosed “supplemental proxy card” and follow the instructions below under “Additional Information — How do I Vote?” **IF YOU SENT IN THE PRIOR WHITE PROXY CARD OR VOTING INSTRUCTION FORM, IT WILL NOT BE COUNTED. YOU MUST SEND IN THE REPLACEMENT “SUPPLEMENTAL PROXY CARD” OR VOTE AGAIN BY TELEPHONE OR THE INTERNET, OR OTHERWISE VOTE IN PERSON FOR YOUR VOTE TO BE COUNTED.**

This Supplement and the accompanying replacement proxy card are first being distributed to stockholders on or about September 13, 2017. Only those stockholders of record at the close of business on August 28, 2017 are entitled to notice of and to vote at the Special Meeting and at any postponement or adjournment thereof.

The following information supplements and amends and should be read in conjunction with the Definitive Proxy Statement. Capitalized terms used but not defined in this Supplement have the respective meanings ascribed to them in the Definitive Proxy Statement.

The following question and answer set forth on page 2 of the Definitive Proxy Statement is amended in its entirety as follows:

What am I voting on?

The approval of an amendment to our Restated Certificate of Incorporation to (i) effect a one-for-six (1-for-6) reverse stock split whereby every six (6) shares of the Company's issued and outstanding common stock, \$0.001 par value per share (the "Common Stock"), shall be combined into one (1) share (the "Reverse Stock Split"), (ii) if and when the Reverse Stock Split is effected, reduce the number of authorized shares of common stock by one-sixth to 41,666,666 shares; and (iii) if and when the Reverse Stock Split is effected, reduce the number of authorized shares of preferred stock, par value \$0.01 per share ("Preferred Stock") by one-sixth to 833,333 shares.

The transaction of such other business as may properly come before the Special Meeting and at any postponement or adjournment thereof.

The Reverse Stock Split and corresponding reductions in the number of authorized shares are collectively referred to in this Proxy Statement as the "Proposal" or the "Reverse Stock Split Amendments".

The following question and answer set forth on page 3 of the Definitive Proxy Statement is amended in its entirety as follows:

What is the recommendation of the Board of Directors?

Our Board of Directors recommends a vote "FOR" approval of the amendment to our Restated Certificate to (i) effect a one-for-six (1-for-6) reverse stock split whereby every six (6) shares of the Company's issued and outstanding common stock, \$0.001 par value per share (the "Common Stock"), shall be combined into one (1) share (the "Reverse Stock Split"), (ii) if and when the Reverse Stock Split is effected, reduce the number of authorized shares of Common Stock by one-sixth to 41,666,666 shares and (iii) if and when the Reverse Stock Split is effected, reduce the number of authorized shares of Preferred Stock by one-sixth to 833,333 shares.

The heading on page 5 of the Definitive Proxy Statement and the first and second paragraphs on page 5 of the Definitive Proxy Statement under the heading "PROPOSAL- APPROVAL OF AMENDMENT TO THE CYTRX CORPORATION RESTATED CERTIFICATE OF INCORPORATION TO EFFECT A ONE-FOR-SIX (1-FOR-6) REVERSE STOCK SPLIT AND DECREASE IN AUTHORIZED SHARES OF COMMON STOCK" are amended in their entirety as follows:

PROPOSAL--APPROVAL OF AMENDMENT TO THE CYTRX CORPORATION RESTATED CERTIFICATE OF INCORPORATION TO EFFECT A ONE-FOR-SIX (1-FOR-6) REVERSE STOCK SPLIT AND DECREASE IN AUTHORIZED SHARES OF COMMON STOCK AND PREFERRED STOCK

Our Board of Directors has adopted a resolution to amend our Restated Certificate of Incorporation ("Restated Certificate") to effect a one-for-six (1-for-6) reverse split of our issued and outstanding shares of Common Stock (the "Reverse Stock Split"), and contemporaneously with such Reverse Stock Split, (i) to effect a reduction in the number of authorized shares of Common Stock by one-sixth from 250,000,000 to 41,666,666 shares, and (ii) to effect a reduction in the number of authorized shares of Preferred Stock by one-sixth from 5,000,000 to 833,333 shares, subject to an affirmative vote of the holders of at least a majority of the issued and outstanding shares as of the record date entitled to vote on the this Proposal at the Special Meeting. The Reverse Stock Split and corresponding reductions in the number of authorized shares are collectively referred to in this Proxy Statement as the "Proposal" or the "Reverse Stock Split Amendments".

Upon receiving stockholder approval of the Reverse Stock Split Amendments, the Board of Directors will have the authority, but not the obligation, in its sole discretion, to decide without further action on the part of the stockholders whether or not to effect the Reverse Stock Split Amendments. The Reverse Stock Split Amendments would be effected by filing an amendment to our Restated Certificate in the form of the Certificate of Amendment attached as Annex A

to this Supplement. The actual timing of any such filing will be determined by the Board of Directors, based on its evaluation of the best interests of the Company and its stockholders.

The fourth paragraph on page 5 under the heading “Background and Purpose of the Proposal” is amended in its entirety as follows:

If our stockholders approve this Proposal, our Board of Directors will determine, in its discretion, whether and when to file a Certificate of Amendment to our Restated Certificate in the form of Annex A to this Supplement with the Secretary of State of the State of Delaware to effect the Reverse Stock Split Amendments. The Reverse Stock Split Amendments, if implemented, would not change the par value of our Common Stock or Preferred Stock. Except for any insignificant changes as a result of the treatment of fractional shares, each stockholder will hold the same percentage of Common Stock outstanding immediately prior to the Reverse Stock Split as the stockholder did immediately prior to the Reverse Stock Split.

The fourth bullet point under the heading “Principal Effects of the Reverse Stock Split Amendments—Corporate Matters” on page 6 of the Definitive Proxy Statement is amended in its entirety as follows:

The Company’s authorized shares of Common Stock will be reduced by one-sixth from 250,000,000 shares to 41,666,666 shares.

A fifth bullet point shall be added under the heading “Principal Effects of the Reverse Stock Split Amendments—Corporate Matters” on page 6 of the Definitive Proxy Statement to read in its entirety as follows:

The Company’s authorized shares of Preferred Stock will be reduced by one-sixth from 5,000,000 shares to 833,333 shares

The paragraphs entitled Principal Effects of the Reverse Stock Split Amendments—Authorized Shares” on page 6 of the Definitive Proxy Statement are amended in their entirety as follows:

Authorized Shares. Upon the completion of the Reverse Stock Split Amendments, the number of authorized shares of Common Stock in our Restated Certificate will be reduced by one-sixth, from 250,000,000 to 41,666,666 shares. Upon completion of the Reverse Stock Split Amendments, our issued and outstanding shares of Common Stock will be also reduced to one-sixth of the previous amount. As of the record date, we had 250,000,000 shares of Common Stock authorized and 165,825,800 shares of Common Stock issued and outstanding. Authorized but unissued Common Stock will be available for future issuance, and we may issue such shares in financings or otherwise. If we issue additional shares, the ownership interest of holders of our Common Stock may be diluted. We have no present plan, agreement or understanding to issue any of our authorized but unissued shares of Common Stock or Preferred Stock if the Reverse Stock Split is effected.

Upon the completion of the Reverse Stock Split Amendments, the total number of authorized shares of Preferred Stock in our Restated Certificate will be reduced by one-sixth, from 5,000,000 to 833,333 shares. As of the record date, we had 5,000,000 shares of Preferred Stock authorized and no shares of Preferred Stock issued and outstanding. Any future issuance of preferred shares may have rights, preferences or privileges senior to those of our Common Stock.

The paragraph at the bottom of page 9 of the Definitive Proxy Statement immediately after the paragraph entitled “Required Vote” shall be amended in its entirety as follows:

THE BOARD OF DIRECTORS RECOMMENDS THAT STOCKHOLDERS VOTE "FOR" THE AMENDMENT TO THE RESTATED CERTIFICATE OF INCORPORATION TO EFFECT A ONE FOR SIX (1-FOR-6) REVERSE STOCK SPLIT AND DECREASE IN AUTHORIZED SHARES OF COMMON STOCK. AND PREFERRED STOCK

Additional Questions and Answers

What is the difference between the supplemental proxy card enclosed with this Supplement and the white proxy card enclosed with the Definitive Proxy Statement?

A replacement supplemental proxy card is enclosed with this Supplement to reflect the amended Proposal to approve an amendment to our Restated Certificate of Incorporation to (i) effect a one-for-six (1-for-6) reverse stock split whereby every six (6) shares of the Company's issued and outstanding common stock, \$0.001 par value per share (the "Common Stock"), shall be combined into one (1) share (the "Reverse Stock Split"), (ii) if and when the Reverse Stock Split is effected, reduce the number of authorized shares of common stock by one-sixth to 41,666,666 shares and (iii) if and when the Reverse Stock Split is effected, reduce the number of authorized shares of preferred stock, par value \$0.01 per share ("Preferred Stock") by one-sixth to 833,333 shares. The new supplemental proxy card does not otherwise differ from the original white proxy card previously furnished to you.

How do I Vote?

You may vote your proxy by completing, dating signing, and mailing the accompanying replacement supplemental proxy card in the return envelope provided, or by telephone or by Internet by following the instructions on the replacement form of proxy. If you vote your shares by telephone or Internet, you do not have to return your supplemental proxy card. The persons authorized by such means to vote your shares will vote them as you specify or, in the absence of your specification, as stated on the replacement supplemental proxy card.

You may also vote by attending the Special Meeting in person. If you attend the Special Meeting, you may vote there in person, regardless whether you have voted. If you wish to vote your shares in person at the Special Meeting and your shares are registered in the name of a broker, trust, bank or nominee, you will need to bring a legal proxy or a letter from that broker, trust, bank or other holder of record that confirms that you are the beneficial owner of those shares.

IF YOU SENT IN THE PRIOR WHITE PROXY CARD, IT WILL NOT BE COUNTED. YOU MUST SEND IN THE REPLACEMENT "SUPPLEMENTAL PROXY CARD" OR FOLLOW THE INSTRUCTIONS ON THE REPLACEMENT PROXY TO VOTE BY TELEPHONE OR INTERNET, OR VOTE IN PERSON FOR YOUR VOTE TO BE COUNTED.

What if I already submitted a white proxy card?

If you have already submitted a white proxy card or voting instruction form on the original Proposal, for your vote to be included in the Special Meeting, please complete, sign and date the new supplemental proxy card enclosed herewith and follow the instructions.

What can I do if I change my mind after I vote?

You may revoke your supplemental proxy card and change your vote by either (i) signing another supplemental proxy card with a later date and returning it before the polls close at the Special Meeting; (ii) voting in person at the Special Meeting; (iii) changing your vote by telephone; or (iv) changing your vote on the Internet.

However, if you hold your shares in street name, you must request a proxy from the person in whose name your shares are held, usually your stockbroker, to vote at the Special Meeting.

Are there any other changes to the Definitive Proxy Statement?

Except as described in this Supplement all the disclosures in the Definitive Proxy Statement remain in effect.

Are copies of this Supplement and the Definitive Proxy Statement available on the Internet?

Yes. This Supplement and the Definitive Proxy Statement are available at our website at www.cytrx.com and on the SEC's website at www.sec.gov.

What if I have questions regarding the Special Meeting or would like additional copies of the supplemental proxy card?

If you would like additional copies of the supplemental proxy card, please contact your broker, if your shares are held in street name. Otherwise, you may call 1-800-690-6903. If you have any questions concerning the Special Meeting, please contact CytRx at (310) 826-5648 or by email: info@cytrx.com. If you have any questions or need assistance voting your shares, please call Saratoga Proxy Consulting LLC at (212) 257-1311 or 888-368-0379.

By Order of the Board of Directors,



John Caloz
Chief Financial Officer

September 13, 2017

ANNEX A

**CERTIFICATE OF AMENDMENT TO
RESTATED CERTIFICATE OF INCORPORATION
OF
CYTRX CORPORATION**

CytRx Corporation, a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "Corporation"), DOES HEREBY CERTIFY as follows:

FIRST: The Restated Certificate of Incorporation of the Corporation is hereby amended by deleting in its entirety the Fourth Article and by replacing it with the following:

"FOURTH: The total number of shares of all classes of stock that the corporation shall have the authority to issue is Forty-Two Million Four Hundred Ninety-Nine Thousand Nine Hundred Ninety-Nine (42,999,999), of which Forty-One Million Six Hundred Sixty Six Thousand Six Hundred Sixty-Six (41,666,666) shall be common stock, par value \$.001 per share (the "Common Stock"), and Eight Hundred Thirty-Three Thousand Three Hundred Thirty-Three (833,333) shall be preferred stock, par value \$.01 per share (the "Preferred Stock").

The Board of Directors is hereby authorized, subject to any limitations prescribed by law, to provide for the issuance of the shares of Preferred Stock in series, and by filing a Certificate pursuant to the applicable law of the State of Delaware (hereinafter referred to as a "Preferred Stock Designation"), to establish from time to time the number of shares to be included in each such series, and to fix the designations, powers, preferences, and rights of the shares of each such series, any qualifications, limitations or restrictions thereof.

Upon the filing and effectiveness (the "Effective Time") of this Certificate of Amendment pursuant to the General Corporation Law of the State of Delaware, each six (6) shares of the corporation's Common Stock issued and outstanding immediately prior to the Effective Time shall, automatically and without any action on the part of the respective holders thereof, be reclassified and combined into one (1) validly issued, fully paid and non-assessable share of Common Stock, subject to the treatment of fractional share interests described below (the "Reverse Stock Split"). No fractional shares of Common Stock shall be issued as a result of the Reverse Stock Split. Fractional shares will be rounded up to the next whole share. The Corporation will issue one full share of the post Reverse Stock Split Common Stock to any stockholder who would have been entitled to receive a fractional share as a result of the process. Each certificate that immediately prior to the Effective Time represented shares of Common Stock (an "Old Certificate") shall thereafter represent that number of shares of Common Stock into which the shares of Common Stock represented by the Old Certificate shall have been combined, subject to the elimination of fractional share interests as described above."

SECOND: The foregoing amendment was duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

THIRD: The foregoing amendment shall be effective upon filing with the Secretary of State of the State of Delaware.

