

CYTRX CORP
Form S-4/A
August 07, 2008

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As filed with the Securities and Exchange Commission on August 7, 2008

Reg. No. 333-152309

**SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

**Amendment No. 1
to
FORM S-4
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

CYTRX CORPORATION
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

58-1642750
(I.R.S. Employer
Identification No.)

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

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Steven A. Kriegsman
President and Chief Executive Officer
CytRx Corporation
11726 San Vicente Boulevard., Suite 650
Los Angeles, California 90049
(310) 826-5648

(Name, address, including zip code, and telephone number, including area code, of agent for service)
With copies to:

Benjamin S. Levin, Esq.
CytRx Corporation

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Los Angeles, California 90049
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Raleigh, North Carolina 27607
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Approximate date of commencement of proposed sale to public: As soon as practicable after this Registration Statement becomes effective and upon completion of the merger described in the enclosed proxy statement/prospectus.

If the securities being registered on this form are to be offered in connection with the formation of a holding company and there is compliance with General Instruction G, check the following box. o

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company

(Do not check if a smaller reporting company)

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(A) OF THE SECURITIES ACT OF 1933 OR UNTIL THIS REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(A), MAY DETERMINE.

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MERGER PROPOSED YOUR VOTE IS VERY IMPORTANT

Dear Stockholders:

We cordially invite you to attend a special meeting of stockholders of Innovive Pharmaceuticals, Inc., a Delaware corporation, at our offices located at 555 Madison Avenue, 25th Floor, New York, New York, on September 19, 2008, at 10:00 a.m., local time.

At the special meeting, we will ask you to consider and vote upon a proposal to approve an Agreement and Plan of Merger, dated as of June 6, 2008, pursuant to which CytRx Corporation, a Delaware corporation, has agreed to acquire Innovive as a wholly owned subsidiary. The acquisition will be effected by the merger of Innovive with CytRx Merger Subsidiary, Inc., with Innovive as the surviving corporation. CytRx Merger Subsidiary, Inc. was formed by CytRx solely for purposes of entering into the merger agreement and completing the transactions contemplated by the merger agreement.

A copy of the merger agreement is attached as Appendix A to the accompanying proxy statement/prospectus. Pursuant to the terms of the merger agreement, Merger Subsidiary will merge with and into Innovive with Innovive to be the surviving corporation in the merger. As a result of the merger, Innovive will become a wholly owned subsidiary of CytRx and will change its corporate name to CytRx Oncology Corporation. Shares of Innovive common stock will no longer be publicly traded after the merger.

In the merger, CytRx will pay initial merger consideration of \$3,000,000 in the form of shares of CytRx common stock valued at \$0.94 per share, which equals the average daily volume-weighted closing price of CytRx common stock as reported on The Nasdaq Capital Market over the 10 trading days prior to the signing of the merger agreement. CytRx also will pay future earnout merger consideration of up to \$18,253,462, subject to the achievement of specified net sales under Innovive's existing license agreements. Subject to specified conditions, any earnout merger consideration will be payable in shares of CytRx common stock or, at CytRx's election, in cash, or by a combination of shares of CytRx common stock and cash. CytRx common stock will be valued for purposes of any earnout merger consideration based upon the average of the daily market price during the 10-trading day period ending on the second trading day prior to payment of the earnout merger consideration. If Innovive's stockholders approve the merger agreement and the merger is completed, all of the outstanding shares of Innovive common stock immediately prior to the effective time of the merger (other than shares held by Innovive, CytRx and Merger Subsidiary and by Innovive stockholders, if any, who properly exercise their rights as dissenting stockholders under Delaware law) will be converted into the right to receive an allocable portion of the merger consideration based upon the fully diluted shares of Innovive at the effective time of the merger.

After careful consideration, Innovive's board of directors, by a unanimous vote of the directors, has determined that the merger agreement is advisable, fair to, and in the best interests of the stockholders of Innovive, has approved and authorized in all respects the merger agreement, and recommends that you vote **FOR** the approval of the merger agreement.

The accompanying proxy statement/prospectus provides you with detailed information about the proposed merger and the special meeting. Please give this material your careful attention. You may also obtain more information about Innovive and CytRx from documents filed with the Securities and Exchange Commission. We encourage you to obtain current market quotations for CytRx common stock, which is traded on The Nasdaq Capital Market under the symbol **CYTR**.

We would like you to attend the special meeting. **HOWEVER, WHETHER OR NOT YOU PLAN TO ATTEND THE SPECIAL MEETING, IT IS IMPORTANT THAT YOUR SHARES BE REPRESENTED.** Accordingly, please sign, date, and return the enclosed proxy card in the postage-paid envelope or submit your proxy by the Internet prior to the special meeting. If you attend the special meeting and vote in person, your vote by ballot will revoke any proxy previously submitted. If your shares are held in street name, you must instruct your broker in order to vote. Remember, failing to vote has the same effect as a vote against the approval of the merger agreement.

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We look forward to seeing you on September 19, 2008.

Sincerely,

Steven Kelly

President and Chief Executive Officer

See Risk Factors on page 11 for a discussion of important factors that you should consider before you return your proxy or vote at the special meeting.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the merger or of the securities to be issued in connection with the merger or determined if this proxy statement/prospectus is accurate or complete. Any representation to the contrary is a criminal offense.

This proxy statement/prospectus is dated August __, 2008 and is first being mailed to Innovive stockholders on or about August __, 2008.

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INNOVIVE PHARMACEUTICALS, INC.
555 Madison Avenue, 25th Floor
New York, New York 10022
NOTICE OF SPECIAL MEETING OF STOCKHOLDERS
To Be Held on September 19, 2008

To our Stockholders:

Notice is hereby given that a special meeting of stockholders of Innovive Pharmaceuticals, Inc., a Delaware corporation, will be held on September 19, 2008, at 10:00 a.m., local time, at our offices located at 555 Madison Avenue, 25th Floor, New York, New York, in order to:

(1) Consider and vote upon a proposal to approve the Agreement and Plan of Merger, dated as of June 6, 2008, among Innovive, CytRx Corporation, a Delaware corporation, CytRx Merger Subsidiary, Inc., a Delaware corporation and a wholly owned subsidiary of CytRx, which we refer to as Merger Subsidiary, and Steven Kelly, as stockholder representative. A copy of the merger agreement is attached as Appendix A to the accompanying proxy statement/prospectus. Pursuant to the terms of the merger agreement, Merger Subsidiary will merge with and into Innovive, with Innovive to be the surviving corporation in the merger. As a result of the merger, Innovive will become a wholly owned subsidiary of CytRx and will change its corporate name to CytRx Oncology Corporation. Shares of Innovive common stock will no longer be publicly traded after the merger.

In the merger, CytRx will pay initial merger consideration of \$3,000,000 in the form of shares of CytRx common stock valued at \$0.94 per share, which equals the average daily volume-weighted closing price of CytRx common stock as reported on The Nasdaq Capital Market over the 10 trading days prior to the signing of the merger agreement. CytRx also will pay future earnout merger consideration of up to \$18,253,462, subject to the achievement of specified net sales under Innovive's existing license agreements. Subject to specified conditions, any earnout merger consideration will be payable in shares of CytRx common stock or, at CytRx's election, in cash, or by a combination of shares of CytRx common stock and cash. CytRx common stock will be valued for purposes of any earnout merger consideration based upon the average of the daily market price during the 10-trading day period ending on the second trading day prior to payment of the earnout merger consideration. If Innovive's stockholders approve the merger agreement and the merger is completed, all of the outstanding shares of Innovive common stock immediately prior to the effective time of the merger (other than those shares held by Innovive, CytRx and Merger Subsidiary and by Innovive stockholders, if any, who properly exercise their rights as dissenting stockholders under Delaware law) will be converted into the right to receive an allocable portion of the merger consideration based upon the fully-diluted shares of Innovive at the effective time of the merger; and

(2) Approve the adjournment of the special meeting, if necessary or appropriate, to solicit additional proxies if there are insufficient votes at the time of the special meeting to approve the merger agreement; and

(3) Transact such other business that may properly come before the special meeting or any adjournment or postponement of the special meeting.

Only stockholders of record of our common stock at the close of business on July 31, 2008 are entitled to notice of and to vote at the special meeting and at any adjournment or postponement of the special meeting. All stockholders of record are cordially invited to attend the special meeting in person.

The approval of the merger agreement requires the approval of the holders of a majority of the outstanding shares of Innovive common stock entitled to vote, with each share having a single vote for this purpose. Directors and officers of Innovive and their affiliates who own beneficially an aggregate of approximately 22% of the shares of Innovive common stock entitled to vote at the special meeting have agreed to vote all shares that they control in favor of the merger agreement.

Whether or not you plan to attend the special meeting, we urge you to vote your shares by completing, signing, dating, and returning the proxy card as promptly as possible in the postage-paid envelope and thus ensure that your shares will be

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represented at the special meeting if you are unable to attend. If you sign, date, and mail your proxy card without indicating how you wish to vote, your proxy will be voted in favor of the approval of the merger agreement. If you fail to return your proxy card or fail to submit your proxy by the Internet and do not vote in person at the special meeting, it will have the same effect as a vote against the approval of the merger agreement. Any stockholder attending the special meeting may vote in person even if he or she has returned a proxy card; such vote by ballot will revoke any proxy previously submitted. If, however, you hold your shares through a bank or broker or other custodian, you must obtain a legal proxy issued from such custodian in order to vote your shares in person at the special meeting.

Each Innovive stockholder who does not vote in favor of the approval of the merger agreement will have the right to require Innovive to purchase his or her shares, in cash, for the fair value of the shares, but only if (i) the merger is completed and (ii) the stockholder complies with the requirements of Delaware law for the exercise of dissenters rights that are summarized in the accompanying proxy statement/prospectus. The completion of the merger is subject to the condition, among others, that the holders of not more than 5% of Innovive's common stock properly exercise their rights as dissenting stockholders.

By Order of the Board of Directors

Eric Poma, Ph.D.
Corporate Secretary

August __, 2008

Please do not send your stock certificates at this time. If the merger is completed, the disbursing agent will provide you with instructions regarding the surrender of your stock certificates

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THE SPECIAL MEETING AND THE MERGER**

*The following questions and answers address briefly some questions you may have regarding the special meeting and the proposed merger. These questions and answers may not address all questions that may be important to you. Please refer to the more detailed information contained elsewhere in this proxy statement/prospectus, the appendices to this proxy statement/prospectus, and the documents referred to in this proxy statement/prospectus. References in this proxy statement/prospectus to **you** refer to Innovive stockholders and references to **we**, **us**, or **our** mean Innovive. References in this proxy statement/prospectus to **CytRx** mean CytRx before the merger, or CytRx and its subsidiaries, including Innovive, after the merger, as the context requires.*

Q: What is the proposed transaction?

A: We are proposing that Innovive be acquired by CytRx pursuant to the merger agreement. If the merger agreement is approved by Innovive's stockholders and the other closing conditions under the merger agreement have been satisfied or waived, Merger Subsidiary, a wholly owned subsidiary of CytRx, will merge with and into Innovive, with Innovive to be the surviving corporation in the merger. As a result of the merger, Innovive will become a wholly owned subsidiary of CytRx and will change its corporate name to CytRx Oncology Corporation. Shares of Innovive's common stock will no longer be publicly traded after the merger.

Q: What is the consideration payable in the merger?

A: In the merger, CytRx will pay initial merger consideration of \$3,000,000 in the form of shares of CytRx common stock valued at \$0.94 per share, which equals the average daily volume-weighted closing price of CytRx common stock as reported on The Nasdaq Capital Market over the 10 trading days prior to the signing of the merger agreement. CytRx also will pay future earnout merger consideration of up to \$18,253,462, subject to the achievement of specified net sales under Innovive's existing license agreements, as follows:

Net Sales	Earnout Merger Consideration
\$ 2,000,000	\$2,000,000
\$15,000,000	\$5,000,000
\$30,000,000	\$5,000,000
\$40,000,000	\$6,253,462

Subject to specified conditions, any earnout merger consideration will be payable in shares of CytRx common stock or, at CytRx's election, in cash, or by a combination of shares of CytRx common stock and cash. CytRx common stock will be valued for purposes of any earnout merger consideration based upon the average of the daily market price during the 10-trading day period ending on the second trading day prior to payment of the earnout merger consideration.

Q: What is my share of the merger consideration?

A: In the merger, you will be entitled to receive for each share of Innovive common stock you hold immediately prior to the effective time of the merger an amount equal to the quotient determined by dividing the sum of the initial merger consideration and the earnout merger consideration (to the extent the earnout merger consideration becomes payable) by the fully diluted shares immediately prior to the effective time of the merger. For purposes of the merger agreement, **fully diluted shares** means the sum of all issued and outstanding shares (including any dissenting shares) of Innovive common stock and all shares of Innovive common stock issuable upon the exercise, in full,

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of all outstanding Innovive warrants that, by their terms, will remain outstanding following the merger. As of the date of this proxy statement/prospectus, there were 19,382,913 fully diluted shares. This does not include the option for 2,000,000 shares that we granted to CytRx pursuant to the loan and security agreement as described under Ancillary Agreements Loan and Security Agreement. The initial merger consideration and any earnout merger consideration paid or payable for each share of Innovive common stock are sometimes collectively referred to in this proxy statement/prospectus as the **merger consideration**. Your right to receive any earnout merger consideration will not be transferable, except by operation of law. No fractional shares of CytRx common stock will be issued in the merger. In lieu of any fractional share, you will receive cash equal to the value in the merger of such fractional share, less any applicable withholding.

Q: What is this document?

A. This document constitutes a proxy statement and a notice of meeting with respect to the special meeting of Innovive stockholders at which you will be asked to consider and vote on the proposal to approve the merger agreement. This document also constitutes a prospectus of CytRx with respect to the shares of CytRx common stock to be issued to you pursuant to the merger agreement.

Q: Where and when is the special meeting?

A: The special meeting will be held at 10:00 a.m., local time, on September 19, 2008, at our offices located at 555 Madison Avenue, 25th Floor, New York, New York.

Q: Are all Innovive stockholders as of the record date entitled to vote at the special meeting?

A: Yes. All stockholders who own Innovive common stock at the close of business on July 31, 2008, the record date for the special meeting, are entitled to receive notice of the special meeting and to vote the shares of Innovive common stock that they held on that date at the special meeting, or at any adjournments or postponements of the special meeting.

Q: Are all Innovive stockholders as of the record date entitled to attend the special meeting?

A: Yes. Innovive stockholders as of the record date, or their legally authorized proxies named in the proxy card, may attend the special meeting. Seating, however, is limited. Cameras, recording devices, and other electronic devices will not be permitted at the meeting. If your shares are held in the name of a broker, trust, bank, or other nominee, you should bring a proxy or letter from the broker, trustee, bank, or nominee confirming your beneficial ownership of the shares.

Q: What vote of Innovive s stockholders is required to approve the merger agreement?

A: For us to complete the merger, stockholders holding a majority of the outstanding shares of Innovive common stock at the close of business on the record date must vote **FOR** the approval of the merger agreement, with each share having a single vote for these purposes. Accordingly, failure to vote or abstaining from voting will have the same effect as a vote against the merger agreement.

Q. How do the Innovive insiders intend to vote their shares?

Steven Kelly, Neil Herskowitz, J. Jay Lobell and Eric Poma, M.D., each of whom is a director or officer of Innovive, and their affiliates, Lindsay A. Rosenwald, M.D., and Lester Lipshutz, as investment manager or trustee

of trusts established for the benefit of Dr. Rosenwald and his family, along with Angelo De Caro, who recently resigned as a director, have agreed pursuant to support agreements that they have entered into with CytRx and Merger Subsidiary to vote all Innovive shares that they control in favor of the merger agreement. These directors and officers and their affiliates own beneficially an aggregate of approximately 22% of the shares of common stock entitled to vote at

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the special meeting. To facilitate the support agreements, these beneficial owners also granted CytRx proxies to vote their shares with respect to the merger and the merger agreement.

Q: Does our board of directors recommend that our stockholders vote FOR the approval of the merger agreement?

A: Yes. After careful consideration, the board of directors, by a unanimous vote of the directors, recommends that you vote **FOR** the approval of the merger agreement. You should read *The Merger Innoviv's Reasons for the Merger* beginning on page 43 of this proxy statement/prospectus for a discussion of the factors that our board of directors considered in deciding to recommend the approval of the merger agreement.

In considering the recommendation of the board of directors with respect to the merger agreement, you should be aware that some of Innoviv's directors and executive officers who participated in meetings of the board of directors have interests in the merger that are different from, or in addition to, the interests of our stockholders generally. See *The Merger Interests of Certain Persons in the Merger* beginning on page 47.

Q: What do I need to do now?

A: We urge you to read this proxy statement/prospectus carefully, including its appendices, and to consider how the merger affects you. If you are a stockholder as of the record date, then you can ensure that your shares are voted at the special meeting by completing, signing, dating, and returning each proxy card in the postage-paid envelope provided or submitting your proxy by the Internet prior to the special meeting.

Q: If my shares are held in street name by my broker, will my broker vote my shares for me?

A: Your broker will vote your shares on your behalf only if you provide instructions to your broker on how to vote. You should follow the directions provided by your broker regarding how to instruct your broker to vote your shares. Without those instructions, your shares will not be voted, which will have the same effect as voting against the merger.

Q: How do I change or revoke my vote?

A: You can change your vote at any time before your proxy is voted at the special meeting. You may revoke your proxy prior to the special meeting by notifying us in writing or by submitting a later-dated new proxy by the Internet or by mail to Innoviv Pharmaceuticals, Inc., 555 Madison Avenue, 25th Floor, New York, New York 10022, Attention: Corporate Secretary. You also may revoke your proxy by attending the special meeting and voting in person. Simply attending the special meeting, however, will not be sufficient to revoke your proxy. If you have instructed a broker to vote your shares, these options for changing your vote do not apply, and instead you must follow the instructions received from your broker to change your vote.

Q: What does it mean if I get more than one proxy card or vote instruction card?

A: If your shares are registered differently and are in more than one account, you will receive more than one proxy card. Please sign, date, and return all of the proxy cards you receive (or submit your proxy by the Internet) to ensure that all of your shares are voted.

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Q: When do you expect the merger to be completed?

A: We are working toward completing the merger as quickly as possible, and we anticipate that it will be completed in September 2008, assuming satisfaction or waiver of all of the conditions to the merger described under "The Merger Agreement - Conditions to the Merger" beginning on page 70 of this proxy statement/prospectus. However, because the merger is subject to certain conditions, the exact timing of the completion of the merger and the likelihood of the consummation of the merger cannot be predicted with certainty. If any of the conditions in the merger agreement is not satisfied, the merger agreement may terminate as a result.

Q. Are there risks associated with the merger?

A. Yes. The merger involves risks, including the following:

the merger is subject to a number of conditions, and there is no assurance that the merger will be completed;

the expected benefits of the merger to the combined company are subject to post-merger challenges, including maintaining the listing of CytRx common stock on The Nasdaq Capital Market to promote liquidity for stockholders of the combined company and potentially greater access to capital and using the assets and resources of the combined company to successfully develop the existing product candidates of the combined company, and these and benefits may not be realized;

if the costs associated with the merger exceed the benefits, the combined company may experience adverse financial results, including increased losses;

CytRx expects to continue to incur operating losses, and the combined company will need to raise additional funds to cover the cost of operating or it may have to reduce or stop operations;

the merger agreement limits our ability to pursue alternatives to the merger, and CytRx will be entitled to exercise its option to purchase Innovive common stock if we do so, which would be materially dilutive to our stockholders;

the support agreements may deter competing bids;

because the market price of CytRx common stock may fluctuate, you cannot be sure of the market value of CytRx common stock that you will receive in the merger;

you cannot be sure when you will receive any earnout merger consideration, and you may never receive any earnout merger consideration;

the merger may be a taxable transaction for U.S. federal income tax purposes, in which case you will recognize taxable gain or loss to the extent that the value of the merger consideration you receive is greater or less than your tax basis in your Innovive shares, and even if the merger otherwise qualifies as a tax-free reorganization for U.S. federal income tax purposes, you will recognize taxable income or gain to the extent of any earnout merger consideration characterized as imputed interest and to the extent the balance of any earnout merger consideration received in the form of cash is greater than your tax basis in your Innovive shares allocable to that earnout merger consideration;

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if the merger is not completed, we will have incurred substantial expenses without realizing the expected benefits of the merger and will have to repay CytRx for advances under the loan and security agreement, which we may not be able to do;

our officers and directors have financial interests in the merger that may be different from, or in addition to, the interests of our stockholders, generally;

if the merger is not consummated by September 30, 2008, either we or CytRx may choose not to proceed with the merger;

the fairness opinion obtained by us from our financial advisor will not reflect changes in circumstances subsequent to the date of the merger agreement; and

the shares of CytRx common stock to be received in the merger will have different rights from the shares of Innovive common stock that you now hold.

Q: Who will bear the cost of this solicitation?

A: The expenses of preparing, printing, and mailing this proxy statement/prospectus and the proxies solicited hereby will be borne by Innovive. Additional solicitation may be made by telephone, facsimile, or other contact by certain directors, officers, employees, or agents of Innovive, none of whom will receive additional compensation for those activities. Innovive will, upon request, reimburse brokerage houses and other custodians, nominees, and fiduciaries for their reasonable expenses for forwarding material to the beneficial owners of shares held of record by others.

Q: Will a proxy solicitor be used?

A: No. However, the directors, officers, employees, and other agents of Innovive may solicit proxies on our behalf from stockholders by telephone, by other electronic means, or in person.

Q: Should I send in my stock certificates now?

A: No. Shortly after the merger is completed, you will receive a letter of transmittal with instructions informing you how to surrender your stock certificates or book-entry shares to the disbursing agent in order to receive the merger consideration. **Please do not send in your stock certificates with your proxy card.**

Q: Who can help answer my other questions?

A: If you have more questions about the merger, need assistance in submitting your proxy or voting your shares, or need additional copies of the proxy statement/prospectus or the enclosed proxy card, you can call our Chief Financial Officer, J. Gregory Jester, at (212) 716-1814. If your broker holds your shares, you should also call your broker for additional information.

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SUMMARY OF THE PROXY STATEMENT/PROSPECTUS

This summary highlights selected information from the proxy statement/prospectus and may not contain all of the information that is important to you. You should carefully read the entire proxy statement/prospectus to fully understand the proposed transaction. We encourage you to read the merger agreement that is attached as Appendix A, because it is the legal document that governs the parties' agreement pursuant to which CytRx will acquire Innovive in a merger if all of the conditions to the merger are satisfied or waived. Certain items in this summary include page references directing you to a more complete description of the items in this proxy statement/prospectus.

The Parties to the Merger (pages 40, 79 and 127)

CytRx Corporation

CytRx Corporation was organized in 1985 as a Delaware corporation. CytRx is a clinical-stage biopharmaceutical company engaged in developing human therapeutic products based primarily upon its small-molecule molecular chaperone amplification technology. Through February 2008, CytRx owned a majority of the outstanding shares of common stock of RXi Pharmaceuticals Corporation, which CytRx refers to as **RXi**. RXi was founded in April 2006 by CytRx and four researchers in the field of ribonucleic acid interference, or RNAi, including Dr. Craig Mello, recipient of the 2006 Nobel Prize for Medicine for his co-discovery of RNAi. In March 2008, CytRx distributed to its stockholders approximately 36% of RXi's outstanding shares, which reduced CytRx's ownership to less than 50% of RXi. RXi is focused solely on developing and commercializing therapeutic products based upon RNAi technologies for the treatment of human diseases.

CytRx's executive officers are located at 11726 San Vicente Boulevard, Suite 650, Los Angeles, California 90049, and its telephone number is (310) 826-5648. CytRx common stock is listed for trading on The Nasdaq Capital Market under the symbol **CYTR**. The common stock of RXi is listed on The Nasdaq Capital Market under the symbol **RXII**.

Innovive Pharmaceuticals, Inc.

Innovive Pharmaceuticals, Inc. was organized in 2004 as a Delaware corporation. Innovive is a development-stage biopharmaceutical company engaged in the development of compounds for the treatment of cancer. Innovive's executive offices are located at 555 Madison Avenue, 25th Floor, New York, New York 10022, and its telephone number is (212) 716-1810. Innovive common stock is quoted on the Over-the-Counter Bulletin Board, or OTCBB, under the symbol **IVPH**.

CytRx Merger Subsidiary, Inc.

CytRx Merger Subsidiary, Inc. was organized in 2008 as a Delaware corporation and wholly owned subsidiary of CytRx. Merger Subsidiary was formed by CytRx solely for purposes of entering into and completing the transactions contemplated by the merger agreement. It has not conducted any activities to date other than activities incidental to its organization and in connection with the transactions contemplated by the merger agreement. Merger Subsidiary's business address and telephone number are the same as those of CytRx.

The Merger (page 40)

You are being asked to vote your shares of Innovive to approve the merger agreement. The merger agreement provides that Merger Subsidiary will be merged with and into Innovive, and that the outstanding shares of Innovive common stock (other than shares that are owned by Innovive, CytRx and Merger

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Subsidiary and shares that are owned by stockholders, if any, who properly exercise dissenters' rights under Delaware law) will be cancelled and converted into the right to receive the merger consideration.

After the completion of the merger, you will have no ownership interest in Innovive and shares of Innovive's common stock will no longer be publicly traded.

The Special Meeting of Stockholders (page 58)

Place, Date, and Time

The special meeting of stockholders will be held at 10:00 a.m., local time, on September 19, 2008, at our offices located at 555 Madison Avenue, 25th Floor, New York, New York.

Vote Required for Approval of the Merger Agreement (page 58)

Approval of the merger agreement requires stockholders holding a majority of the outstanding shares of Innovive common stock at the close of business on the record date to vote FOR the approval of the merger agreement, with each share having a single vote for this purpose. The failure to vote has the same effect as a vote against the approval of the merger agreement.

Who Can Vote at the Special Meeting (page 58)

You may vote at the special meeting all of the shares of Innovive common stock you own of record as of the close of business on July 31, 2008. If you own shares that are registered in someone else's name (for example, a broker), you need to direct that person to vote those shares on your behalf or obtain an authorization from them to vote the shares yourself at the special meeting. As of the close of business on July 31, 2008, there were 14,610,003 shares of Innovive common stock outstanding held by 171 holders of record. We believe that a number of our stockholders hold their shares in street name and, as a result, that the number of beneficial holders of Innovive common stock is greater than the number of record holders.

Procedure for Voting (page 59)

You may vote your shares by attending the special meeting and voting in person, or you may submit a proxy by the Internet or by mailing the enclosed proxy card. You can change your vote at any time before your proxy is voted at the special meeting. You may revoke your proxy prior to the special meeting by notifying us in writing or by submitting a later-dated proxy by the Internet or by mail to Innovive Pharmaceuticals, Inc., 555 Madison Avenue, 25th Floor, New York, New York 10022, Attention: Corporate Secretary. In addition, you may revoke your proxy by attending the special meeting and voting in person. However, simply attending the special meeting will not revoke your proxy. If you have instructed a broker to vote your shares, these options for changing your vote do not apply, and instead you must follow the instructions received from your broker to change your vote.

If your shares are held in street name by your broker, please follow the directions provided by your broker in order to instruct your broker as to how to vote your shares. If you do not instruct your broker to vote your shares, it will have the same effect as a vote against the approval of the merger agreement.

Board Recommendation (page 60)

After careful consideration, our board of directors, by unanimous vote:

has determined that the merger agreement is advisable, fair to, and in the best interests of Innovive and its stockholders;

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has approved and authorized in all respects the merger agreement, the merger, and the other transactions contemplated by the merger agreement; and

recommends that Innovive's stockholders vote FOR the approval of the merger agreement.

Neither Innovive nor any of our officers or directors has an ownership interest in CytRx or is otherwise affiliated with CytRx, and we have had no dealings with CytRx or its officers or directors other than in connection with the merger agreement and related matters. However, in considering the recommendation of the board of directors with respect to the merger agreement, you should be aware that some of Innovive's directors and executive officers who participated in meetings of the board of directors have interests in the merger that are different from, or in addition to, the interests of our stockholders, generally. See The Merger Interests of Certain Persons in the Merger beginning on page 47.

Fairness Opinion (page 49 and Appendix C)

In connection with the merger, our board of directors received a written opinion, dated June 6, 2008, from Chartered Capital Advisers, Inc., Innovive's financial advisor, which we refer to as **Chartered**, as to the fairness, from a financial point of view and as of the date of the opinion, of the merger consideration to be received by holders of our common stock. The full text of Chartered's written opinion is attached to this proxy statement/prospectus as Appendix C. We encourage you to read the opinion carefully in its entirety for a description of the assumptions made, procedures followed, matters considered, and limitations on the review undertaken.

Chartered's opinion was provided to our board of directors in connection with our board of directors evaluation of the merger consideration from a financial point of view and does not address any terms or other aspects or implications of the merger, other than the merger consideration to the extent expressly specified in the opinion, or any aspects or implications of any other agreement, arrangement or understanding entered into in connection with the merger or otherwise. Chartered's opinion is not intended to be, and does not constitute, a recommendation to any stockholder as to how such stockholder should vote or act on any matters relating to the proposed merger.

Shares Held by Directors and Officers; Support Agreements (pages 48 and 155 and Appendix B)

As of July 31, 2008, the directors and officers of Innovive beneficially owned approximately 3% of the shares of Innovive common stock entitled to vote at the special meeting. Steven Kelly, Neil Herskowitz, J. Jay Lobell and Eric Poma, M.D., each of whom is a director or officer of Innovive, and their affiliates, Lindsay A. Rosenwald, M.D., and Lester Lipshutz, as investment manager or trustee of trusts established for the benefit of Dr. Rosenwald and his family, along with Angelo De Caro, who recently resigned as a director, have agreed pursuant to support agreements that they have entered into with CytRx and Merger Subsidiary to vote all Innovive shares that they control in favor of the merger agreement. These directors and officers and their affiliates own beneficially an aggregate of approximately 22% of the shares of common stock entitled to vote at the special meeting. To facilitate the support agreements, these beneficial owners also granted CytRx proxies to vote their share with respect to the merger and the merger agreement. The full text of the form of the support agreements, including the form of proxy, is attached to this proxy statement/prospectus as Appendix B. We encourage you to read the form of the support agreements in its entirety.

Material United States Federal Income Tax Consequences (page 55)

The treatment of the merger for U.S. federal income tax may be uncertain. If the merger is a taxable exchange, each U.S. holder of Innovive common stock will recognize income, gain or loss for U.S. federal income tax purposes measured by the difference between the fair market value of the merger consideration received in the merger and the holder's tax basis in the Innovive common stock. If, on the other hand, the

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merger constitutes a tax-free reorganization, each U.S. holder of Innovive common stock will not recognize gain or loss on the receipt of CytRx common stock, but will recognize (i) taxable income on the portion of any earnout merger consideration characterized as imputed interest and (ii) taxable gain on the receipt of the balance of any earnout merger consideration received in the form of cash, to the extent it exceeds the U.S. holder's adjusted tax basis in the Innovive common stock allocable to such earnout merger consideration. You should consult your personal tax advisor, however, for a full understanding of the tax consequences related to the merger that are particular to you.

Stock Exchange Listing of CytRx Common Stock (page 49)

It is a condition to the completion of the merger that the shares of CytRx common stock issuable to Innovive stockholders in payment of the initial merger consideration be approved for listing on The Nasdaq Capital Market. It is also a condition to the payment of any earnout merger consideration that CytRx may elect to pay in shares of CytRx common stock that such shares be listed on The Nasdaq Capital Market or other trading market.

Comparative Market Prices of Common Stock (page 49)

CytRx common stock is listed on The Nasdaq Capital Market and our common stock is quoted on the OTCBB. On June 6, 2008, the last full trading day before the public announcement of the merger agreement, the closing price of CytRx common stock as reported on The Nasdaq Capital Market was \$0.99. On June 6, 2008, the last full trading day before the public announcement of the merger agreement, the closing price of shares of our common stock as reported on the OTCBB was \$0.15. If the merger is completed, there is no assurance as to what the market price of CytRx common stock will be at that or any other time.

Regulatory Requirements (page 49)

The merger is not subject to any federal or state regulatory requirements.

Dissenters' or Appraisal Rights (page 157 and Appendix D)

If you do not vote your shares in favor of approval of the merger agreement, you will be entitled to receive in cash an amount equal to the fair value of your shares, provided that you comply with the procedures set forth in Section 262 of the Delaware General Corporation Law. The ultimate amount you receive as a dissenting stockholder may be more or less than, or the same as, the merger consideration you would have received in the merger. Your failure to follow exactly the procedures specified under Delaware law will result in the loss of your dissenters' rights.

The completion of the merger is subject to the condition, among others, that the holders of not more than 5% of Innovive's common stock properly exercise their rights as dissenting stockholders.

Interests of Certain Persons in the Merger (page 47)

In considering the recommendation of our board of directors with respect to the merger agreement, you should be aware that some of our directors and executive officers have interests in the merger that may be different from, or in addition to, the interests of our stockholders, generally. These interests include indemnification and insurance arrangements with our officers and directors and severance benefits that may become payable to some of our officers. Our board of directors was aware of these interests and considered them, among other matters, in approving the merger agreement.

CytRx's officers and directors own CytRx common stock and have been granted stock options to purchase CytRx common stock, none of which will vest or be adjusted or otherwise changed as a result of the

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merger. Except for the interests inherent in their ownership of CytRx common stock and stock options, CytRx's officers and directors do not have any material interests in the merger.

Comparison of Rights of Innovive Stockholders and CytRx Stockholders (page 165)

Your rights as Innovive stockholders are currently governed by our certificate of incorporation, our bylaws and Delaware law. Upon completion of the merger, you will become stockholders of CytRx and your rights will be governed by CytRx's restated certificate of incorporation, CytRx's restated bylaws, the Shareholder Protection Rights Agreement, dated April 16, 1997, as amended, between CytRx and American Stock Transfer & Trust Co., as rights agent, which we refer to in this proxy statement/prospectus as the **CytRx rights agreement**, and Delaware law.

Procedure for Receiving the Merger Consideration (page 62)

CytRx will appoint a disbursing agent reasonably acceptable to us to coordinate the payment of the initial merger consideration following the merger. Promptly after the completion of the merger, the disbursing agent will mail a letter of transmittal with instructions to you and the other stockholders. The letter of transmittal and instructions will tell you how to surrender your stock certificates or book-entry shares in order to receive the merger consideration.

Please do not send in your share certificates now.

Stock Options (page 62)

At or prior to the completion of the merger, the administrator of our stock plans will resolve under the stock plans that each Innovive stock option outstanding immediately prior to the effective time of the merger, whether or not then vested or exercisable, will be cancelled immediately prior to the effective time, with any consideration due to the holders thereof being paid at such time. All of our stock options currently are underwater, so we expect that our option holders will receive no payments or other consideration in connection with the merger. After the merger, such stock options will no longer be outstanding and the holders of the options will no longer have any rights to purchase Innovive stock or other securities.

Warrants (page 62)

Each Innovive warrant outstanding immediately prior to the effective time of the merger that, by its terms, does not expire upon the effective time, will remain outstanding in accordance with its terms, and the holder thereof will thereafter have the right to purchase and receive (in lieu of the shares of Innovive common stock) the merger consideration payable with respect to the number of shares of Innovive common stock purchasable under the warrant immediately prior to the effective time of the merger. To the extent Innovive warrants outstanding at the effective time of the merger are subsequently cancelled, or terminate, without being exercised in full, the merger consideration otherwise payable with respect to such cancelled or terminated warrants will become the property of CytRx. If required by the terms of the warrants, CytRx will cause to be issued promptly after the completion of the merger replacement warrants for the Innovive warrants that, by their terms, will remain outstanding after the merger.

No Solicitation by Us of Alternative Acquisition Transactions (page 67)

The merger agreement contains restrictions on our ability to solicit or engage in discussions or negotiations with any third party relating to an acquisition transaction, which generally means (1) a license or sublicense of our intellectual property under our existing license agreements, (2) acquisition of 10% or more of our assets, (3) acquisition of at least 10% of our common stock, (4) a tender offer or exchange offer that would result in any person beneficially owning 10% or more of our common stock, or (5) merger, consolidation or similar transaction. We have agreed that, prior to the completion of the merger or the earlier termination of the merger agreement, we will not (i) initiate, solicit, or provide non-public or confidential information to facilitate any inquiry that constitutes, or may reasonably be expected to lead to, a proposal or

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offer relating to an acquisition transaction, or (ii) enter into, continue, or otherwise participate in any discussions or negotiations with any third party regarding, or furnish to any person any non-public information, or provide access to our properties, books, or records with respect to, any inquiries that constitute, or may reasonably be expected to lead to, an acquisition transaction.

However, prior to receipt of our stockholders' approval of the merger agreement, if we receive any bona fide written offer or proposal with respect to a potential or proposed acquisition transaction that was not solicited, initiated, or knowingly encouraged by us in violation of the merger agreement and which our board of directors determines is or could reasonably be expected to result in a proposal that is superior to the terms of the merger agreement, we are allowed to (1) furnish (subject to the execution of a confidentiality agreement) confidential or non-public information to, and negotiate with, the potential third party acquirer and (2) upon compliance by us with the termination provisions of the merger agreement with CytRx, including the payment to CytRx of a \$1,500,000 termination fee, enter into an agreement relating to the superior proposal.

Conditions to the Merger (page 70)

Before we can complete the merger, a number of conditions must be satisfied, including:

approval of the merger agreement by our stockholders;

none of the parties to the merger agreement being subject to any law, order, injunction, judgment, or ruling by any governmental authority that prohibits the consummation of the merger or makes the consummation of the merger illegal;

the effectiveness under the Securities Act of 1933, as amended, of the registration statement of which this proxy statement/prospectus is a part;

the exemption, qualification or registration under applicable state securities laws of the shares of CytRx common stock issuable in payment of the initial merger consideration;

the listing on The Nasdaq Capital Market of the shares of CytRx common stock issuable in payment of the initial merger consideration;

the absence of any lawsuit (1) seeking to restrain or prohibit the consummation of the merger or seeking to obtain damages from Innovive, CytRx, or Merger Subsidiary, (2) seeking the disposition of any material assets or businesses of Innovive, or (3) otherwise seeking to limit the actions of CytRx with respect to the material assets or business of Innovive after the merger;

the continued accuracy of the representations and warranties of us and CytRx that are contained in the merger agreement;

the resignation, effective as of the effective time of the merger, of each of our directors and officers;

the performance by us and CytRx of all of the obligations that we and CytRx are required to perform under the merger agreement prior to the time of the merger; and

the holders of not more than 5% of the outstanding shares of our common stock having properly exercised their rights as dissenting stockholders.

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Termination of the Merger Agreement (page 71)

We and CytRx may agree at any time to terminate the merger agreement without completing the merger. The merger agreement may also be terminated in certain other circumstances specified in the merger agreement, including, without limitation and subject to the detailed terms and conditions specified in the merger agreement:

by either us or CytRx, if the merger has not been completed by September 30, 2008 other than due to the fault of the party seeking to terminate the merger agreement and other than due to the failure of the condition regarding effectiveness of the registration statement of which this proxy statement/prospectus is a part;

by either us or CytRx, if the other party is in material breach of its representations, warranties, or covenants contained in the merger agreement;

by either us or CytRx following the entry of any final and non-appealable judgment, injunction, order, or decree by a court or governmental agency restraining or prohibiting the completion of the merger;

by us, if our board of directors decides to accept an unsolicited superior proposal for an acquisition transaction and pays the termination fee described below to CytRx;

by CytRx, if our board of directors changes or withdraws, or fails to reaffirm, its recommendation to Innovative's stockholders that they approve the merger agreement;

by CytRx, if we receive a proposal regarding an acquisition transaction from any person and our board of directors takes a neutral position or makes no recommendation with respect to the proposal and does not publicly reaffirm its recommendation in favor of the merger agreement; and

by either us or CytRx, if our stockholders fail to approve the merger agreement at the special meeting.

Termination Fee (page 72)

The merger agreement provides that, upon termination of the merger agreement under specified circumstances, we will be obligated to pay CytRx a termination fee of \$1,500,000. We will owe the termination fee if the merger agreement is terminated because (1) our board of directors decides to accept an unsolicited superior proposal for an acquisition transaction, (2) our board of directors changes or withdraws, or fails to reaffirm, its recommendation to our stockholders that they approve the merger agreement, (3) if we receive a proposal regarding an acquisition transaction from any person and our board of directors takes a neutral position or makes no recommendation with respect to the proposal and does not publicly reaffirm its recommendation in favor of the merger agreement, (4) we breach specified provisions in the merger agreement, or (5) our stockholders fail to approve the merger agreement and we enter into another acquisition transaction within one year after the termination of the merger agreement with a party that made a proposal for such acquisition transaction prior to the special meeting of stockholders.

Indemnification and Offset (page 73)

The merger agreement contains indemnification rights for the benefit of CytRx (1) to the extent that our actual net liabilities (as defined in the merger agreement) as of June 6, 2008 exceeded our estimated net liabilities of \$3,746,538 on that date as represented by us in the merger agreement, (2) for all losses (including the first \$50,000 of any such losses) to CytRx resulting from breaches of our representations and warranties once such losses exceed a \$50,000 threshold and (3) actual deposits returned to or recovered by CytRx or the

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surviving corporation are less than the deposits previously disclosed by us. CytRx's recourse for indemnification will be limited to its right of offset against any earnout merger consideration. The termination fee and indemnification provisions of the merger agreement and right of offset are generally the sole remedies for CytRx with respect to any breaches of Innovive's representations and warranties in the merger agreement.

Stockholder Representative (pages 60 and 73)

If the merger agreement is approved at the special meeting, you will be deemed to have irrevocably appointed Steven Kelly, our President and Chief Executive Officer, as your agent and attorney-in-fact for purposes of the merger agreement if the merger is completed. You will be bound by all actions taken by the stockholder representative in connection with the merger agreement, and CytRx will be entitled to rely on any action or decision of the stockholder representative as being your decision, act, consent or instruction. With some exceptions, CytRx will be relieved from any liability to any person for any acts done by it in accordance with such decision, act, consent or instruction of the stockholder representative. The stockholder representative will not be required to take any action involving any expense to the stockholder representative unless the payment of such expense is made or provided for in a manner satisfactory to him. The reasonable legal fees and other expenses, if any, incurred by the stockholder representative in performance of his duties, not to exceed \$20,000 in the aggregate, will be advanced by CytRx. CytRx also will compensate the stockholder representative at the rate of \$250 per hour, not to exceed \$10,000 in the aggregate, for the performance of his duties.

The stockholder representative will establish and maintain a register of our stockholders and warrant holders for purposes of payment and distribution of any earnout merger consideration. Your right to receive any earnout merger consideration will not be transferable, except by operation of law.

Loan and Security Agreement (page 76)

In connection with the merger agreement, we entered into a loan and security agreement with CytRx pursuant to which CytRx made an initial advance to us of approximately \$1,725,000, which was used to pay some of our current accounts payable and accrued expenses. Under the loan agreement, we may request that CytRx make additional advances in the cumulative aggregate principal amount of up to approximately \$3,775,000 to fund our working capital requirements pending the special meeting and the completion of the merger. All additional advances requested by us will be at CytRx's discretion. As of July 31, 2008, we had requested, and CytRx had made, approximately \$662,000 of additional advances under the loan and security agreement.

All advances under the loan agreement are secured by a lien on all or substantially all of our assets, bear interest at the rate of 12.5% per annum, and generally are due and payable, in full, together with accrued interest, on the earlier of the date of termination of the merger agreement or September 30, 2008.

In consideration for entering into the loan agreement and making the initial advance, we granted CytRx under the loan agreement a one-year option to purchase up to 2,000,000 shares of common stock of Innovive at an exercise price of \$0.01 per share. The option will become exercisable only if we terminate the merger agreement to pursue a superior proposal as permitted by the merger agreement.

Table of Contents**Selected Historical Financial Information of CytRx**

Set forth below is selected historical financial information of CytRx as of and for the years ended December 31, 2003 through 2007 and as of and for the three months ended March 31, 2008 and 2007. The results of operations for the three months ended March 31, 2008 and 2007 are not necessarily indicative of the results of operations for the full year or any other interim period. CytRx management prepared the unaudited information on the same basis as it prepared CytRx's audited consolidated financial statements. In the opinion of CytRx management, the unaudited information reflects all adjustments, consisting of only normal recurring adjustments, necessary for a fair presentation of this information. You should read the following information in conjunction with CytRx's historical financial statements and related notes included as Appendix E to this proxy statement/prospectus.

	Three Months Ended March 31,		Years Ended December 31,				
	2008	2007	2007	2006	2005	2004	2003
	(unaudited)						
	(in thousands, except per share information)						
Statement of Operations Information:							
Revenues:							
Service revenue	\$ 2,181	\$ 1,447	\$ 7,242	\$ 1,859	\$ 83	\$	\$
Licensing revenue			101	101	101	428	94
Grant revenue		116	116	106			
Total revenues	\$ 2,181	\$ 1,563	\$ 7,459	\$ 2,066	\$ 184	\$ 428	\$ 94
Deemed dividend for anti-dilution adjustments made to outstanding common stock warrants		(757)		(488)	(1,076)		
Net loss applicable to common stock	\$ (6,131)	\$ (4,546)	\$ (21,890)	\$ (17,240)	\$ (16,169)	\$ (16,392)	\$ (17,845)
Basic and diluted loss per share applicable to common stock	\$ (0.07)	\$ (0.06)	\$ (0.26)	\$ (0.25)	\$ (0.28)	\$ (0.48)	\$ (0.65)
Balance Sheet Information:							
Cash, cash equivalents and short-term investments	\$ 43,539	\$ 36,352	\$ 60,450	\$ 30,381	\$ 8,299	\$ 2,999	\$ 11,644
Total assets	\$ 50,540	\$ 38,072	\$ 64,146	\$ 31,636	\$ 9,939	\$ 5,049	\$ 12,324
Total stockholders' equity	\$ 33,391	\$ 12,794	\$ 40,224	\$ 5,150	\$ 7,208	\$ 1,595	\$ 10,193

Table of Contents**Selected Historical Financial Information of Innovive**

Set forth below is selected historical financial information of Innovive as of and for the years ended December 31, 2005 through 2007, for the period March 24, 2004 (inception) to December 31, 2007, for the period March 24, 2004 (inception) to March 31, 2008, and as of and for the three months ended March 31, 2008 and 2007. The results of operations for the three months ended March 31, 2008 and 2007 are not necessarily indicative of the results of operations for the full year or any other interim period. Innovive management prepared the unaudited information on the same basis as it prepared Innovive's audited financial statements. In the opinion of Innovive management, the unaudited information reflects all adjustments, consisting of only normal recurring adjustments, necessary for a fair presentation of this information. You should read the following information in conjunction with Innovive's historical financial statements and related notes included as Appendix F to this proxy statement/prospectus.

	Three Months Ended		Period from March 24, 2004 (inception) to March 31, 2008	Year Ended December 31,			Period from March 24, 2004 (inception) to December 31, 2007
	March 31, 2008	2007	2008	2007	2006	2005	2007
	(unaudited)						
	(in thousands, except per share information)						
Statement of Operations Information:							
Research and development	\$ 732	\$ 2,727	\$ 31,040	\$ 14,274	\$ 12,237	\$ 3,628	\$ 30,308
General and administrative	686	964	10,116	4,154	3,420	1,656	9,430
Total operating expenses	1,418	3,691	41,156	18,428	15,657	5,284	39,738
Loss from operations	(1,418)	(3,691)	(41,156)	(18,428)	(15,657)	(5,284)	(39,738)
Interest income	18	55	477	286	156	16	459
Interest expense			1,606		1,189	411	1,606
Other expense	177		220	43			43
Net loss	(1,576)	(3,636)	(42,505)	(18,185)	(16,690)	(5,679)	(40,928)
Imputed preferred stock dividends			809		809		809
Net loss applicable to common shares	\$ (1,576)	\$ (3,636)	\$ (43,314)	\$ (18,185)	\$ (17,499)	\$ (5,679)	\$ (41,737)
	\$ (0.11)	\$ (0.40)		\$ (1.41)	\$ (2.74)	\$ (1.83)	

Net loss per common share basic and diluted

Weighted average common shares outstanding basic and diluted

14,610,003	9,147,068	12,902,475	6,391,802	3,107,338
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Balance Sheet Information:

Cash and cash equivalents and short-term investments

\$	302	\$	464	\$	2,670	\$	2,545	\$	134
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Working capital (deficiency)

(3,671)	(2,020)	(2,222)	1,330	(4,039)
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Total assets

948	1,573	3,241	4,228	500
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Deficit accumulated during the development stage

(43,313)	(27,188)	(41,737)	(23,552)	(6,053)
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Total stockholders equity (deficiency)

(3,526)	(1,895)	(2,074)	1,456	(5,134)
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RISK FACTORS

In addition to the other information contained in this proxy statement/prospectus, we urge you to consider the following factors before deciding how to vote on the approval and adoption of the merger agreement.

Risks Associated with the Merger

There is no guarantee that the merger will be completed.

The merger is subject to a number of conditions, including approval by Innovive stockholders. There is no assurance that the merger will be approved or that the other conditions to the completion of the merger will be satisfied. If the merger is not completed, we will either need to complete another strategic transaction or file for bankruptcy protection.

Innovive and CytRx may not achieve the benefits they expect from the merger, which may have a material adverse effect on the combined company's business, financial, and operating results.

Innovive and CytRx entered into the merger agreement with the expectation that the merger will result in benefits to the combined company. Post-merger challenges include the following:

maintaining the listing of CytRx common stock on The Nasdaq Capital Market to promote liquidity for stockholders of the combined company and potentially greater access to capital; and

using the assets and resources of the combined company to successfully develop the existing product candidates of the combined company.

If the combined company is not successful in addressing these and other challenges, then the benefits of the merger may not be realized and, as a result, the combined company's operating results and the market price of CytRx's common stock may be adversely affected.

If the costs associated with the merger exceed the benefits, the combined company may experience adverse financial results, including increased losses.

Innovive and CytRx will incur significant transaction costs as a result of the merger, including legal and accounting fees that may exceed their current estimates. In addition, Innovive and CytRx expect that the combined company will incur integration expenses, which cannot be precisely estimated at this time. Actual transaction costs may substantially exceed the current estimates of Innovive and CytRx and may adversely affect the combined company's financial condition and operating results. If the benefits of the merger do not exceed the costs associated with the merger, the combined company's financial results could be adversely affected, resulting in, among other things, increased losses, and decreased trading prices for CytRx common stock.

CytRx expects to continue to incur operating losses, and the combined company will need to raise additional funds to cover the cost of operation. If the combined company is not able to raise necessary additional funds, it may have to reduce or stop operations.

CytRx has had no commercial revenues to date and cannot predict when it will. CytRx had an accumulated deficit of approximately \$170.5 million as of March 31, 2008. CytRx cannot be certain that the combined company after the merger will achieve or sustain profitability in the future. Until the combined company begins generating significant revenue, it will be required to obtain funding through the sale of equity securities, which may result in dilution to CytRx's then-existing stockholders, or other means. Additional funding may not be available to the combined company on acceptable terms, or at all. If the combined

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company is unable to obtain adequate financing on a timely basis, it may be required to delay, reduce or stop operations, any of which would have a material adverse effect on its business.

The merger agreement limits our ability to pursue alternatives to the merger, and if we do so, CytRx would be entitled to exercise its option to purchase Innovive common stock granted in the loan and security agreement, which would be dilutive to our stockholders.

The merger agreement contains no-shop provisions that, subject to specified exceptions, limit our ability to discuss, facilitate or commit to competing acquisition transactions. In addition, a termination fee of \$1,500,000 is payable by us if we terminate the merger agreement to pursue a superior proposal. These provisions might discourage a potential competing acquirer that might have an interest in acquiring all or a significant part of Innovive from considering or proposing that acquisition even if it were prepared to pay consideration greater than the merger consideration proposed in the merger, or might result in a potential competing acquirer proposing to pay less consideration to acquire Innovive than it might have been willing to pay absent these no-shop provisions.

If we were to terminate the merger agreement to pursue a superior proposal, CytRx would be entitled to exercise its option granted in the loan and security agreement to purchase up to 2,000,000 shares of our common stock at an exercise price of \$0.01 per share. CytRx would be likely to exercise its option in connection with the completion of a superior proposal transaction, which would materially reduce the amount of the consideration that otherwise would be received in the transaction by our other stockholders.

The support agreements may deter competing bids.

Our directors and officers and their affiliates who are entitled to vote approximately 22% of the shares of Innovive common stock entitled to vote at the special meeting have agreed in the support agreements to vote their shares in favor of the merger agreement and against any competing acquisition transaction. The support agreements may discourage other potential acquirers and would make it more difficult for a competing acquirer to obtain approval of its bid.

Because the market price of CytRx common stock may fluctuate, you cannot be sure of the market value of CytRx common stock that you will receive in the merger.

Upon completion of the merger, CytRx will pay initial merger consideration of \$3,000,000 in the form of shares of CytRx common stock valued at \$0.94 per share, which equals the average daily volume-weighted closing price of CytRx common stock as reported on The Nasdaq Capital Market over the ten trading days prior to the signing of the merger agreement, and is not subject to change. The market price of CytRx common stock will likely be different, and may be lower, than \$0.94 on the date that this proxy statement/prospectus is mailed to you, or the date of the special meeting, and on the date you receive shares of CytRx common stock in the merger. Differences in CytRx's stock price may result from a variety of factors, including factors beyond CytRx's control. For a discussion of factors that may affect CytRx's stock price, see Risk Factors Associated with CytRx's Business, Risk Factors Associated with CytRx's Investment in RXi and Risk Factors Associated with CytRx Common Stock below in this section.

You cannot be sure when you will receive any earnout merger consideration, and you may never receive any earnout merger consideration.

In addition to the initial merger consideration, CytRx will pay future earnout merger consideration of up to \$18,253,462, subject to the achievement of specified net sales under Innovive's existing license agreements. No Innovive products have been approved for marketing, and we believe that we are at least two years away from obtaining marketing approval for any products under our existing license agreement. CytRx may be unable to obtain marketing approval for any Innovive products. Even if CytRx obtains such approvals, there is no assurance that it will be able to achieve sufficient net sales to require payment of all or any portion

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of the earnout merger consideration, so you may never receive any earnout merger consideration. The earnout merger consideration also is subject to possible offset by CytRx for indemnification claims under the merger agreement.

The merger might be a taxable transaction for U.S. federal income tax purposes, in which event you will recognize gain or loss to the extent that the value of the merger consideration you receive is greater or less than your tax basis in your Innovive shares.

The merger might constitute a fully taxable exchange, in which case each U.S. holder of Innovive common stock will recognize income, gain or loss for U.S. federal income tax purposes measured by the difference between the fair market value of the merger consideration received in the merger and the holder's tax basis in the Innovive common stock. Even if the merger constitutes a tax-free reorganization, each U.S. holder of Innovive common stock will recognize (i) taxable income on the portion of any earnout merger consideration characterized as imputed interest and (ii) taxable gain on the receipt of any earnout merger consideration received in the form of cash, to the extent it exceeds the U.S. holder's adjusted tax basis in the Innovive common stock allocable to such earnout merger consideration.

If the merger is not completed, we will have incurred substantial expenses without realizing the expected benefits of the merger. We also will have to repay CytRx for advances under the loan and security agreement, and may not be able to do so.

We have incurred substantial expenses in connection with the merger described in this proxy statement/prospectus, the payment of all or substantially all of which was funded by our borrowings from CytRx under the loan and security agreement. We expect to borrow additional amounts prior to the special meeting and the completion of the merger. The completion of the merger depends on the approval of our stockholders and the satisfaction of the other conditions to the merger. If the merger is not completed, we would not have realized the expected benefits of the merger.

If the merger is not completed, our borrowings under the loan and security agreement, plus accrued interest, will become immediately due and payable to CytRx. As of July 31, 2008, CytRx had advanced to us under the loan and security agreement a total of approximately \$2,387,000, and we may request additional advances of up to \$3,113,000 under the loan and security agreement. We have no commitments and arrangements for any financing to repay such advances, so we expect that we would be unable to repay such advances if the merger agreement is not approved at the special meeting or the merger is not completed. In this event, CytRx would be entitled to pursue all of its remedies under the loan and security agreement, including the possible foreclosure sale of all or substantially all of our assets.

Our officers and directors may have financial interests in the merger that may be different from, or in addition to, the interests of our stockholders, generally.

Some of our officers may receive severance benefits under their existing employment agreements, and our officers and directors may have other financial interests in the merger that may be different from, or in addition to, the interests of our stockholders, generally. Our board of directors was aware of these interests and took them into account in its decision to approve and adopt the merger agreement. For information concerning these interests, please see the discussion under the caption "The Merger - Interests of Innovive's Directors and Officers in the Merger."

If the merger is not consummated by September 30, 2008, either we or CytRx may choose not to proceed with the merger.

Either we or CytRx may terminate the merger agreement if the merger has not been completed by September 30, 2008, unless the failure of the merger to be completed by such date has resulted from the failure

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of the party seeking to terminate the merger agreement to perform its obligations or the failure of the condition regarding effectiveness of the registration statement of which this proxy statement/prospectus is a part.

The fairness opinion obtained by us from our financial advisor will not reflect changes in circumstances subsequent to the date of the merger agreement.

We have obtained a fairness opinion dated as of June 6, 2008 from our financial advisor, Chartered Capital Advisers, Inc. We did not seek or obtain from Chartered an updated opinion as of the date of this proxy statement/prospectus. Changes in the operations and prospects of CytRx or us, general market and economic conditions and other factors that may be beyond the control of CytRx and us, and on which the fairness opinion was based, may alter our value or the price of shares of our common stock or of CytRx common stock by the time the merger is completed. Chartered's opinion does not speak to the time the merger will be completed or to any other date other than the date of such opinion. As a result, the opinion will not address the fairness of the merger consideration, from a financial point of view, at the time the merger is completed. For a description of the opinion that we received from Chartered, please refer to "Opinion of Innovive's Financial Advisor" beginning on page 49 of this proxy statement/prospectus.

The shares of CytRx common stock to be received in the merger will have different rights from the shares of Innovive common stock.

Upon completion of the merger, our stockholders will become CytRx stockholders. Your rights as CytRx stockholders will be governed by the restated certificate of incorporation and restated bylaws of CytRx and the CytRx rights agreement, which are different from the rights associated with Innovive common stock. See "Comparison of Rights of Holders of CytRx Common Stock and Innovive Common Stock" beginning on page 165 for a discussion of the different rights associated with CytRx common stock.

Risks Associated with CytRx's Common Stock

CytRx common stock may be delisted from The Nasdaq Capital Market if the stock price does not increase.

CytRx received notice from The Nasdaq Stock Market on May 28, 2008, that CytRx common stock had closed below \$1.00 per share for 30 consecutive business days, and CytRx was therefore not in compliance with the minimum bid price required by Nasdaq Marketplace Rule 4310(c)(4). In accordance with Marketplace Rule 4310(c)(8)(D), CytRx may regain compliance if at any time by November 24, 2008, CytRx common stock closes at or above \$1.00 for 10 consecutive business days and CytRx otherwise meets the Nasdaq's continuing listing requirements. Nasdaq also informed CytRx that if CytRx does not regain compliance by November 24, 2008, CytRx will be granted up to an additional 180 calendar days to regain full compliance while continuing to trade during this time on The Nasdaq Capital Market if at that time CytRx meets the Nasdaq's initial listing requirements other than the minimum bid price rule. If CytRx eventually fails to comply with this condition for continued listing and CytRx common stock is delisted from The Nasdaq Small Capital Market, there is no assurance that CytRx common stock will be listed for trading or quoted elsewhere and an active trading market for CytRx common stock may cease to exist, which would materially and adversely impact the market value of CytRx common stock.

CytRx's outstanding options and warrants and the availability for resale of CytRx's shares issued in CytRx's private financings may adversely affect the trading price of CytRx's common stock.

As of June 30, 2008, there were outstanding stock options and warrants to purchase approximately 18.2 million shares of CytRx's common stock at a weighted-average exercise price of \$1.73 per share. CytRx's outstanding options and warrants could adversely affect CytRx's ability to obtain future financing or engage in certain mergers or other transactions, since the holders of options and warrants can be expected to exercise them at a time when CytRx may be able to obtain additional capital through a new

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offering of securities on terms more favorable to CytRx than the terms of outstanding options and warrants. For the life of the options and warrants, the holders have the opportunity to profit from a rise in the market price of CytRx's common stock without assuming the risk of ownership. The issuance of shares upon the exercise of outstanding options and warrants will also dilute the ownership interests of CytRx's existing stockholders. Many of CytRx's outstanding warrants contain anti-dilution provisions pertaining to dividends or distributions with respect to CytRx's common stock. CytRx's outstanding warrants to purchase approximately 800,000 shares also contain anti-dilution provisions that are triggered upon any issuance of securities by CytRx below the prevailing market price of CytRx's common stock, and CytRx's outstanding warrants to purchase approximately 11.5 million shares contain anti-dilution provisions that are triggered upon any dividend of cash or property. CytRx's recent distribution to CytRx's stockholders of shares of RXi common stock triggered a reduction in the exercise price and an increase in the number of shares underlying these warrants. In the event that these anti-dilution provisions are triggered by CytRx in the future, CytRx would be required to further reduce the exercise price and increase the number of shares underlying these warrants, which would have a dilutive effect on CytRx's stockholders.

CytRx has registered with the SEC the resale by the holders of all or substantially all shares of CytRx common stock issuable upon exercise of its outstanding options and warrants. The availability of these shares for public resale, as well as actual resales of these shares, could adversely affect the trading price of CytRx's common stock.

CytRx may issue preferred stock in the future, and the terms of the preferred stock may reduce the value of CytRx's common stock.

CytRx is authorized to issue shares of preferred stock in one or more series. CytRx's board of directors may determine the terms of future preferred stock offerings without further action by CytRx's stockholders. If CytRx issues preferred stock, it could affect the rights of CytRx stockholders at that time or reduce the value of CytRx common stock. In particular, specific rights granted to future holders of preferred stock may include voting rights, preferences as to dividends and liquidation, conversion and redemption rights, sinking fund provisions, and restrictions on CytRx's ability to merge with or sell CytRx's assets to a third party.

CytRx may experience volatility in its stock price, which may adversely affect the trading price of CytRx's common stock.

The market price of CytRx's common stock has ranged from a low of approximately \$0.43 to a high of approximately \$5.49 per share since January 1, 2007, and it may continue to experience significant volatility from time to time. Factors such as the following may affect such volatility:

- announcements of regulatory developments or technological innovations by CytRx or CytRx's competitors;
- changes in CytRx's relationship with CytRx's licensors and other strategic partners;
- changes in CytRx's stock holdings or other relationships with RXi;
- CytRx's quarterly operating results;
- litigation involving or affecting CytRx;
- shortfalls in CytRx's actual financial results compared to CytRx's guidance or the forecasts of stock market analysts;
- developments in patent or other technology ownership rights;

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acquisitions or strategic alliances by CytRx or CytRx's competitors;

public concern regarding the safety of CytRx's products; and

government regulation of drug pricing.

Other factors which may affect CytRx's stock price are general changes in the economy, the financial markets or the pharmaceutical or biotechnology industries.

CytRx's anti-takeover provisions may make it more difficult to change CytRx's management, or may discourage others from acquiring CytRx, and thereby adversely affect stockholder value.

CytRx's rights plan and provisions in CytRx's bylaws are intended to protect CytRx's stockholders' interests by encouraging anyone seeking control of CytRx to negotiate with CytRx's board of directors. These provisions may discourage or prevent a person or group from acquiring CytRx without the approval of CytRx's board of directors, even if the acquisition would be beneficial to CytRx's stockholders.

CytRx has a classified board of directors, which means that at least two stockholder meetings, instead of one, will be required to effect a change in the majority control of CytRx's board of directors. This applies to every election of directors, not just an election occurring after a change in control. The classification of CytRx's board increases the amount of time it takes to change majority control of CytRx's board of directors and may cause potential acquirers to lose interest in a potential purchase of CytRx, regardless of whether such purchase would be beneficial to CytRx or its stockholders. The additional time and cost to change a majority of the members of CytRx's board of directors makes it more difficult and may discourage CytRx's existing stockholders from seeking to change CytRx's existing management in order to change the strategic direction or operational performance of CytRx's company.

CytRx's restated bylaws provide that directors may only be removed for cause by the affirmative vote of the holders of at least a majority of the outstanding shares of CytRx's capital stock then entitled to vote at an election of directors. This provision prevents stockholders from removing any incumbent director without cause. CytRx's bylaws also provide that a stockholder must give CytRx at least 120 days notice of a proposal or director nomination that such stockholder desires to present at any annual meeting or special meeting of stockholders. Such provision prevents a stockholder from making a proposal or director nomination at a stockholder meeting without CytRx having advance notice of that proposal or director nomination. This could make a change in control more difficult by providing CytRx's directors with more time to prepare an opposition to a proposed change in control. By making it more difficult to remove or install new directors, these bylaw provisions may also make CytRx's existing management less responsive to the views of CytRx's stockholders with respect to CytRx's operations and other issues such as management selection and management compensation.

CytRx does not intend to pay cash dividends on its common stock in the foreseeable future.

CytRx has not declared or paid any cash dividends on CytRx's common stock or other securities, and CytRx currently does not anticipate paying any cash dividends in the foreseeable future. Because CytRx does not anticipate paying cash dividends for the foreseeable future, CytRx's stockholders will not realize a return on their investment in CytRx's common stock except to the extent of any appreciation in the value of CytRx's common stock. CytRx's common stock may not appreciate in value, or may decline in value.

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Risks Associated With CytRx's Business

CytRx has operated at a loss and will likely continue to operate at a loss for the foreseeable future.

CytRx has operated at a loss due to its substantial expenditures for research and development of its product candidates and for general and administrative purposes and its lack of significant recurring revenue. CytRx incurred net losses of \$21.9 million, \$16.8 million and \$15.1 million, respectively, for the years ended December 31, 2007, 2006 and 2005 and a net loss of \$5.4 million for the three months ended March 31, 2008. CytRx had an accumulated deficit as of March 31, 2008 of approximately \$170.5 million. CytRx is likely to continue to incur losses unless and until it is able to commercialize one or more of its product candidates. These losses, among other things, have had and will continue to have an adverse effect on CytRx's stockholders' equity and working capital. Because of the numerous risks and uncertainties associated with its product development efforts, CytRx is unable to predict when CytRx may become profitable, if at all. If CytRx is unable to achieve and maintain profitability, the market value of its common stock will likely decline.

Because CytRx has no source of significant recurring revenue, CytRx must depend on financing to sustain its operations.

Developing products and conducting clinical trials require substantial amounts of capital. To date, CytRx has relied primarily upon proceeds from sales of its equity securities and the exercise of options and warrants, and to a much lesser extent, upon payments from its strategic partners and licensees, to generate funds needed to finance its business and operations. CytRx will need to raise additional capital to, among other things:

fund CytRx's clinical trials and pursue regulatory approval of CytRx's existing and possible future product candidates;

expand CytRx's research and development activities;

finance CytRx's general and administrative expenses;

acquire or license other technologies;

prepare, file, prosecute, maintain, enforce and defend CytRx's patent and other proprietary rights; and

develop and implement sales, marketing and distribution capabilities to successfully commercialize any product for which CytRx obtains marketing approval and which CytRx chooses to market itself.

CytRx's revenues were approximately \$7.5 million, \$2.1 million and \$0.2 million, respectively, for years ended December 31, 2007, 2006 and 2005, and approximately \$2.2 million for the three months ended March 31, 2008. CytRx's revenues for the years ended December 31, 2007 and 2006 and the three months ended March 31, 2008 included approximately \$7.2 million, \$1.9 million, and \$2.2 million, respectively, of deferred revenue recognized from CytRx's sale in August 2006 of a one percent royalty interest in worldwide sales of arimoclomol for the treatment of amyotrophic lateral sclerosis, which is commonly known as ALS, or Lou Gehrig's disease. CytRx will have no significant recurring revenue unless it is able to commercialize one or more of its product candidates in development, which may require CytRx to first enter into license or other strategic arrangements with third parties.

At March 31, 2008, CytRx had cash, cash equivalents and short-term investments of approximately \$43.5 million. CytRx believes that its current resources will be sufficient to support its currently planned level

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of operations into the second half of 2009. This estimate is based, in part, upon CytRx's currently projected expenditures for the remainder of 2008 and the first three months of 2009 of approximately \$23.9 million, including approximately \$1.5 million of direct expenditures for CytRx's planned clinical program for arimoclochol for ALS and related studies, approximately \$0.5 million of direct expenditures for its planned clinical program for arimoclochol for stroke recovery and related studies, approximately \$6.1 million of direct expenditures for its planned Phase II clinical trial of irovanadine for diabetic ulcers, approximately \$7.7 million for the operations of its research laboratory in San Diego, California, and approximately \$8.1 million for other general and administrative expenses. CytRx's projected expenditures are based on CytRx's recently announced plan to conduct additional animal toxicology studies prior to the resumption of its Phase II clinical program for arimoclochol for ALS that currently is on clinical hold by the FDA and prior to any initiation of its Phase II clinical trial for arimoclochol for stroke recovery. Those animal toxicology studies are expected to take approximately one year. As described in the risk factor that follows below in this section, these projected expenditures are based upon numerous other assumptions and subject to many uncertainties, and CytRx's actual expenditures may be significantly different from these projections. These projected expenditures also do not consider the effects of the merger on CytRx's operations and financial condition. However, CytRx will need additional funds to advance any of Innovive's product candidates.

If CytRx obtains marketing approval as currently planned and successfully commercializes its current product candidates, CytRx anticipates it will take a minimum of three years, and possibly longer, for CytRx to generate significant recurring revenue, and CytRx will be dependent on future financing until such time, if ever, as it can generate significant recurring revenue. CytRx has no commitments from third parties to provide CytRx with any additional financing, and CytRx may not be able to obtain future financing on favorable terms, or at all. If CytRx raises additional funds by issuing equity securities, dilution to CytRx's then-existing stockholders may result and new investors could have rights superior to holders of CytRx common stock, including holders who receive shares in the merger. In addition, debt financing, if available, may include restrictive covenants. If adequate funds are not available to CytRx, it may have to liquidate some or all of its assets or to delay or reduce the scope of or eliminate some portion or all of its development programs or clinical trials. CytRx also may have to license to other companies its product candidates or technologies that it would prefer to develop and commercialize on its own.

If CytRx does not achieve its projected development goals in the time frames CytRx announces and expects, or if CytRx's financial projections prove to be materially inaccurate, the commercialization of its products may be delayed and CytRx's stock price may significantly decline.

From time to time, CytRx estimates the timing of the accomplishment of various scientific, clinical, regulatory and other product development goals, which CytRx sometimes refers to as milestones. These milestones may include the commencement or completion of scientific studies and clinical trials and the submission of regulatory filings. For example, CytRx has disclosed elsewhere in this proxy statement/prospectus the expected timing of certain milestones relating to CytRx's arimoclochol and irovanadine clinical development program.

CytRx also may disclose projected expenditures or other forecasts for future periods. For example, CytRx has stated above in this section that it currently projects that its total expenditures for the remainder of 2008 and the first three months of 2009 will be approximately \$23.9 million, without considering the effects of the merger. CytRx's financial projections are based on CytRx management's current expectations and do not contain any cushion for any specific uncertainties, or for the uncertainties inherent in all financial forecasting. The assumptions CytRx management has used to produce these projections may change significantly or prove to be inaccurate. Accordingly, you should not unduly rely on any of these projections.

The actual timing of milestones and actual expenditures or other financial results of CytRx can vary dramatically compared to CytRx's estimates, in some cases for reasons beyond CytRx's control. If CytRx does not meet milestones or financial projections as announced from time to time, the development and commercialization of CytRx's products may be delayed and CytRx's stock price may decline significantly.

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If CytRx's products are not successfully developed and approved by the FDA, CytRx may be forced to reduce or curtail its operations.

All of CytRx's product candidates in development must be approved by the U.S. Food and Drug Administration, or FDA, or corresponding foreign governmental agencies before they can be marketed. The process for obtaining FDA and foreign government approvals is both time-consuming and costly, with no certainty of a successful outcome. This process typically includes the conduct of extensive pre-clinical and clinical testing, including post-approval testing, which may take longer or cost more than CytRx or its licensees, if any, anticipate, and may prove unsuccessful due to numerous factors. Product candidates that may appear to be promising at early stages of development may not successfully reach the market for a number of reasons. The results of preclinical and initial clinical testing of these product candidates may not necessarily be predictive of the results that will be obtained from later or more extensive testing. Companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in advanced clinical trials, even after obtaining promising results in earlier trials.

Numerous factors could affect the timing, cost or outcome of CytRx's product development efforts, including the following:

difficulty in securing centers to conduct trials;

difficulty in enrolling patients in conformity with required protocols or projected timelines;

unexpected adverse reactions by patients in trials;

difficulty in obtaining clinical supplies of the product;

changes in or CytRx's inability to comply with FDA or foreign governmental product testing, manufacturing or marketing requirements;

regulatory inspections of clinical trials or manufacturing facilities, which may, among other things, require CytRx or CytRx's manufacturers or licensees to undertake corrective action or suspend or terminate the affected clinical trials if investigators find them not to be in compliance with applicable regulatory requirements;

inability to generate statistically significant data confirming the safety and efficacy of the product being tested;

modification of the product during testing; and

reallocation of CytRx's limited financial and other resources to other clinical programs.

In addition, the FDA and other regulatory agencies may lack experience in evaluating product candidates to treat ALS. For example, CytRx is aware of only one drug that the FDA has approved to treat ALS, and that no new drug application, or NDA, based upon molecular chaperone amplification has ever been approved by the FDA. This inexperience may lengthen the regulatory review process, increase CytRx's development costs and delay or prevent commercialization of arimoclomol or CytRx's other product candidates. It is possible that none of the product candidates CytRx develops will obtain the regulatory approvals necessary for it to begin selling them. The time required to obtain FDA and foreign governmental approvals is unpredictable, but often can take years following the commencement of clinical trials, depending upon the complexity of the product candidate. Any analysis CytRx performs on data from clinical activities is subject to confirmation and interpretation by regulatory authorities, which could delay, limit or prevent regulatory approval. Furthermore, even if CytRx obtain regulatory approvals, CytRx's products and the manufacturing facilities used to produce them will be subject to continual review, including periodic

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inspections and mandatory post-approval clinical trials by the FDA and other CytRx and foreign regulatory authorities. Any delay or failure in obtaining required approvals or to comply with post-approval regulatory requirements could have a material adverse effect on CytRx's ability to generate revenue from the particular product candidate. The failure to comply with any post-approval regulatory requirements also could also result in the rescission of the related regulatory approvals or the suspension of sales of the offending product.

CytRx's current and planned clinical trials of its molecular chaperone amplification product candidates may fail to show that these product candidates are clinically safe and effective.

The results of CytRx's Phase IIa clinical trial and open-label extension clinical trial of arimoclomol for the treatment of ALS indicated that arimoclomol was safe and well-tolerated in patients. However, the results of the open-label extension clinical trial indicated only a non-statistically significant trend of improvement in the ALS Functional Rating Scale, or ALSFRS, in the arimoclomol high-dose group as compared with reports of previous studies of untreated patients. Because this trial did not have concurrent placebo control group, CytRx can draw no definitive conclusions with respect to efficacy. CytRx plans to initiate a Phase II clinical trial of iroxanadine for diabetic ulcers in the first quarter of 2009. In December 2007, CytRx initiated a Phase IIb efficacy trial of arimoclomol for the treatment of ALS, which was subsequently placed on clinical hold by the FDA. CytRx plans to conduct additional animal toxicology studies to address issues raised by the clinical hold, and depending on the outcome of those studies and other factors, to thereafter resume the Phase IIb efficacy trial. CytRx also plans to undertake a second efficacy trial of arimoclomol for ALS, possibly overlapping with the Phase IIb efficacy trial, to provide additional data to support possible FDA approval. In addition, contingent upon the results of the planned animal toxicology studies and other factors, CytRx plans to conduct a Phase II clinical trial of arimoclomol in stroke patients. The FDA may also require additional, larger Phase III clinical trials before CytRx may submit an application for marketing approval. None of these trials may yield favorable safety and efficacy data, and the FDA may disagree with how CytRx interprets the data from these clinical trials. For example, CytRx may not obtain data from its planned animal toxicology studies of arimoclomol that enable it to proceed with further clinical development, the favorable safety data CytRx observed in earlier trials may not be reproduced in these later trials, and these later trials may not yield statistically significant data indicating that the product candidates are clinically effective. Accordingly, CytRx may ultimately be unable to provide the FDA with satisfactory data on clinical safety and efficacy sufficient to persuade the FDA to approve arimoclomol or iroxanadine for these indications.

The FDA has placed a clinical hold on CytRx's Phase IIb efficacy trial of arimoclomol, which will delay the trial and could lead to a requirement that CytRx conduct additional toxicology studies or alter the trial design.

In January 2008, the FDA placed a clinical hold on CytRx's Phase IIb clinical efficacy trial of arimoclomol for the treatment of ALS due to concerns relating to previous toxicology studies of arimoclomol in rats. CytRx received a formal determination letter from the FDA in July 2008. In light of the ongoing clinical hold, CytRx recently announced plans to conduct additional preclinical toxicology studies of arimoclomol, which are expected to take up to one year to complete, before any possible resumption or initiation of clinical trials of arimoclomol. CytRx cannot predict the outcome of those additional animal toxicology studies. Depending on the outcome, CytRx may be:

- required to conduct additional toxicology or human studies prior to or in parallel with the resumption of CytRx's clinical trial, which would result in substantial additional expenses and possible significant delays in completing the clinical trial;

- required to alter the design including reducing the dosage of arimoclomol, of the clinical trial, which could significantly delay the completion of the trial, increase the cost of the trial, adversely affect CytRx's ability to demonstrate the efficacy of arimoclomol in the trial or cause CytRx to cancel the trial altogether due to one or more of these considerations; or

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prohibited by the FDA from resuming CytRx's current planned clinical trial or initiating any other clinical trial of arimoclomol for the treatment of ALS or any other indication due to safety concerns.

CytRx's development of arimoclomol for stroke recovery is subject to similar risks.

Even if CytRx obtains regulatory approval for arimoclomol or irovanadine, these product candidates may not achieve market acceptance or be profitable.

CytRx does not expect to receive regulatory approvals for the commercial sale of arimoclomol or irovanadine, its candidate for the treatment of diabetic ulcers, for several years, if at all. Even if CytRx does receive regulatory approvals, the future commercial success of these drug candidates will depend, among other things, on their acceptance by physicians, patients, healthcare payors and other members of the medical community as therapeutic and cost-effective alternatives to commercially available products. If CytRx's product candidates fail to gain market acceptance, CytRx may not be able to earn sufficient revenues to continue its business.

Any drugs CytRx develops may become subject to unfavorable pricing regulations, third-party reimbursement practices or healthcare reform initiatives, which could have a material adverse effect on CytRx's business.

CytRx intends to sell its products primarily to hospitals which receive reimbursement for the health care services they provide to their patients from third-party payors, such as Medicare, Medicaid and other domestic and international government programs, private insurance plans and managed care programs. Most third-party payors may deny reimbursement if they determine that a medical product was not used in accordance with cost-effective treatment methods, as determined by the third-party payor, or was used for an unapproved indication. Third-party payors also may refuse to reimburse for experimental procedures and devices. Furthermore, because CytRx's programs are in the early stages of development, CytRx is unable at this time to determine their cost-effectiveness and the level or method of reimbursement. Increasingly, the third-party payors who reimburse patients are requiring that drug companies provide them with predetermined discounts from list prices, and are challenging the prices charged for medical products. If the price CytRx is able to charge for any products CytRx develops is inadequate in light of its development and other costs, CytRx's profitability could be adversely effected.

CytRx currently expects that any drugs it develops may need to be administered under the supervision of a physician. Under currently applicable law, drugs that are not usually self-administered may be eligible for coverage by the Medicare program if:

they are incidental to a physician's services;

they are reasonable and necessary for the diagnosis or treatment of the illness or injury for which they are administered according to accepted standard of medical practice;

they are not excluded as immunizations; and

they have been approved by the FDA.

CytRx's current financial resources may be diminished if it elects to provide RXi Pharmaceuticals Corporation with additional funding.

CytRx has no obligation to provide any additional funding to RXi, but CytRx might seek to provide funding to RXi in order to protect CytRx's current investment in RXi if RXi is unable to obtain sufficient funding on its own, or in order for CytRx to maintain its relative ownership interest in RXi if RXi undertakes a

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financing. If CytRx provides RXi with any additional funding, CytRx will have less funds available for its own business and operations.

CytRx may rely upon third parties in connection with the commercialization of its products.

CytRx plans to retain the services of one or more site management and clinical research organizations to help conduct CytRx's planned clinical trials. CytRx may seek to complete the development and marketing of arimoclomol, if it is approved by the FDA. However, the completion of the development of arimoclomol and CytRx's other product candidates, as well as the marketing of these products, may require CytRx to enter into strategic alliances, license agreements or other collaborative arrangements with other pharmaceutical companies under which those companies will be responsible for one or more aspects of the commercial development and eventual marketing of CytRx's products.

CytRx's products may not have sufficient potential commercial value to enable CytRx to secure strategic arrangements with suitable companies on attractive terms, or at all. If CytRx is unable to enter into such arrangements, CytRx may not have the financial or other resources to complete the development of any of its products and may have to sell its rights in them to a third party or abandon their development altogether.

To the extent CytRx enters into collaborative arrangements with respect to its product candidates, CytRx will be dependent upon the timeliness and effectiveness of the development and marketing efforts of its contractual partners. If these companies do not allocate sufficient personnel and resources to these efforts or encounter difficulties in complying with applicable FDA and other regulatory requirements, CytRx may not obtain regulatory approvals as planned, if at all, and the timing of receipt or the amount of revenue from these arrangements may be materially and adversely affected. These arrangements also would reduce the potential profitability of these product candidates to CytRx.

CytRx has reported several material weaknesses in the effectiveness of its internal controls over financial reporting, and if CytRx cannot maintain effective internal controls or provide reliable financial and other information, investors may lose confidence in CytRx's SEC reports.

In its most recent annual report and its quarterly report for the quarter ended March 31, 2008 filed with the Securities and Exchange Commission, or SEC, CytRx reported material weaknesses in the effectiveness of CytRx's internal controls over financial reporting related to failures on the part of CytRx's accounting personnel to follow established practices and procedures and a failure to keep current CytRx's legal database for contracts relating to CytRx's arimoclomol development program. Additionally, within the past three years:

CytRx identified a material weakness related to CytRx's accounting for an equity transaction by RXi and CytRx's tax withholding in connection with exercises of employee stock options. As a result, CytRx restated its financial statements for the quarter ended June 30, 2007 and extended the filing of its quarterly report for the quarter ended September 30, 2007;

CytRx identified a material weakness related to its accounting for transactions at its former laboratory facility in Worcester, Massachusetts. As a result, CytRx restated its financial statements for the quarters ended March 31, 2006, June 30, 2006 and September 30, 2006;

CytRx improperly applied generally accepted accounting principles related to its accounting for deemed dividends incurred in connection with anti-dilution adjustments made to its outstanding warrants. This misapplication of accounting principles constituted a material weakness and caused CytRx to twice restate its financial statements for the quarters ended March 31, 2005, June 30, 2005 and September 30, 2005 and for the year ended December 31, 2005, as well as restate its financial statements for the quarters ended March 31, 2006, June 30, 2006 and September 30, 2006; and

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CytRx miscalculated pro forma employee stock option compensation figures disclosed in the footnotes to its financial statements. As a result, CytRx restated its financial statements for the quarters ended March 31, 2005, June 30, 2005 and September 30, 2005 and for the year ended December 31, 2005.

In addition, CytRx concluded in its annual report for the year ended December 31, 2007 and quarterly reports for the quarters ended March 31, 2008, September 30, 2007 and June 30, 2007 that CytRx's disclosure controls and procedures were ineffective as of those dates. Disclosure controls generally include controls and procedures designed to ensure that information required to be disclosed by CytRx in the reports it files with the SEC is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms.

Effective internal controls over financial reporting and disclosure controls and procedures are necessary for CytRx to provide reliable financial and other reports and effectively prevent fraud. If CytRx cannot maintain effective internal controls or provide reliable financial or SEC reports or prevent fraud, investors may lose confidence in CytRx's SEC reports, its operating results and the trading price of its common stock could suffer and CytRx may become subject to litigation.

CytRx may be unable to protect its intellectual property rights, which could adversely affect CytRx's ability to compete effectively.

CytRx believes that obtaining and maintaining patent and other intellectual property rights for its technologies and potential products is critical to establishing and maintaining the value of its assets and its business. CytRx will be able to protect its technologies from unauthorized use by third parties only to the extent that CytRx has rights to valid and enforceable patents or other proprietary rights that cover them. Although CytRx has patents and patent applications directed to its molecular chaperone amplification technologies, these patents and applications may not be effective to prevent third parties from developing or commercializing similar or identical technologies. In addition, CytRx's patents may be held to be invalid if challenged by third parties, and CytRx's patent applications may not result in the issuance of patents.

The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in biotechnology patents has emerged to date in the United States and in many foreign countries. The application and enforcement of patent laws and regulations in foreign countries is even more uncertain. Accordingly, CytRx may not be able to effectively file, protect or defend its proprietary rights on a consistent basis. In particular, the patents and patent applications related to its molecular chaperone amplification product candidates were issued or filed by third parties prior to the time CytRx acquired rights to them, and they begin to expire in 2016. The validity, enforceability and ownership of those patents and patent applications may be challenged, and if a court decides that CytRx's patents are not valid, CytRx will not have the right to stop others from using CytRx's inventions. There is also the risk that, even if the validity of CytRx's patents is upheld, a court may refuse to stop others on the ground that their activities do not infringe CytRx's patents.

Any litigation brought by CytRx to protect CytRx's intellectual property rights could be costly and have a material adverse effect on CytRx's operating results or financial condition, make it more difficult for CytRx to enter into strategic alliances with third parties to develop CytRx's products, or discourage CytRx's existing licensees from continuing their development work on CytRx's potential products. If CytRx's patent coverage is insufficient to prevent third parties from developing or commercializing similar or identical technologies, the value of CytRx's assets is likely to be materially and adversely affected.

CytRx also relies on certain proprietary trade secrets and know-how, especially where CytRx believes patent protection is not appropriate or obtainable. However, trade secrets and know-how are difficult to protect. Although CytRx has taken measures to protect CytRx's unpatented trade secrets and know-how,

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including the use of confidentiality and invention assignment agreements with CytRx's employees, consultants and some of CytRx's contractors, it is possible that these persons may disclose CytRx's trade secrets or know-how or that CytRx's competitors may independently develop or otherwise discover CytRx's trade secrets and know-how.

If CytRx's product candidates infringe the rights of others, CytRx could be subject to expensive litigation or be required to obtain licenses from others to develop or market them.

CytRx's competitors or others may have patent rights that they choose to assert against CytRx or CytRx's licensees, suppliers, customers or potential collaborators. Moreover, CytRx may not know about patents or patent applications that CytRx's products would infringe. For example, because patent applications can take many years to issue, there may be currently pending applications, unknown to us, that may later result in issued patents that CytRx's arimoclolol, iroxadine or other product candidates would infringe. In addition, if third parties file patent applications or obtain patents claiming technology also claimed by CytRx in issued patents or pending applications, CytRx may have to participate in interference proceedings in the U.S. Patent and Trademark Office to determine priority of invention. If third parties file oppositions in foreign countries, CytRx may also have to participate in opposition proceedings in foreign tribunals to defend the patentability of its foreign patent applications.

If a third party claims that CytRx infringes the third party's proprietary rights, any of the following may occur:

CytRx may become involved in time-consuming and expensive litigation, even if the claim is without merit;

CytRx may become liable for substantial damages for past infringement if a court decides that CytRx's technology infringes a competitor's patent;

a court may prohibit CytRx from selling or licensing CytRx's product without a license from the patent holder, which may not be available on commercially acceptable terms, if at all, or which may require CytRx to pay substantial royalties or grant cross licenses to CytRx's patents; and

CytRx may have to redesign CytRx's product candidates or technology so that it does not infringe patent rights of others, which may not be possible or commercially feasible.

If any of these events occurs, CytRx's business and prospects will suffer and the market price of CytRx's common stock will likely decline substantially.

CytRx is subject to intense competition, and CytRx may not compete successfully.

CytRx and its strategic partners or licensees may be unable to compete successfully against CytRx's current or future competitors. The pharmaceutical, biopharmaceutical and biotechnology industries are characterized by intense competition and rapid and significant technological advancements. Many companies, research institutions and universities are working in a number of areas similar to CytRx's primary fields of interest to develop new products. There also is intense competition among companies seeking to acquire products that already are being marketed. Many of the companies with which CytRx competes have or are likely to have substantially greater research and product development capabilities and financial, technical, scientific, manufacturing, marketing, distribution and other resources than CytRx and at least some of its present or future strategic partners or licensees.

As a result, these competitors may:

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- succeed in developing competitive products sooner than CytRx or CytRx's strategic partners or licensees;
- obtain FDA or foreign governmental approvals for their products before CytRx can obtain approval of any of CytRx's products;
- obtain patents that block or otherwise inhibit the development and commercialization of CytRx's product candidate candidates;
- develop products that are safer or more effective than CytRx's products;
- devote greater resources than CytRx to marketing or selling products;
- introduce or adapt more quickly than CytRx to new technologies and other scientific advances;
- introduce products that render CytRx's products obsolete;
- withstand price competition more successfully than CytRx or CytRx's strategic partners or licensees;
- negotiate third-party strategic alliances or licensing arrangements more effectively than CytRx; and
- take better advantage than CytRx of other opportunities.

CytRx is aware of only one drug, Rilutek, which was developed by Aventis Pharma AG, that has been approved by the FDA for the treatment of ALS. Many companies are working to develop pharmaceuticals to treat ALS, including Aeolus Pharmaceuticals, Celgene Corporation, Mitsubishi Tanabe Pharma Corporation, Ono Pharmaceuticals, Trophos SA, Knopp Neurosciences Inc., Faust Pharmaceuticals SA, Oxford BioMedica plc, Phytopharm plc and Teva Pharmaceutical Industries Ltd., as well as RXi. ALS patients often take over-the-counter supplements, including vitamin E, creatine and coenzyme Q10, or drugs such as lithium that are approved for other indications. ALS belongs to a family of neurodegenerative diseases that includes Alzheimer's, Parkinson's and Huntington's diseases. Due to similarities between these diseases, a new treatment for one such disease potentially could be useful for treating others. There are many companies producing and developing drugs used to treat neurodegenerative diseases other than ALS, including Amgen, Inc., Biogen Idec, Boehringer Ingelheim, Cephalon, Inc., Ceregene, Inc., Elan Pharmaceuticals, plc, Forest Laboratories, Inc., H. Lundbeck A/S, Phytopharm plc, UCB Group and Wyeth.

Current drug classes used to treat stroke include antiplatelet agents, anticoagulants, salicylates, neuroprotectants and thrombolytic agents. Prescription antiplatelet agents include Aggrenox by Boehringer Ingelheim, Plavix by Sanofi-Aventis and Bristol-Myers Squibb, and Ticlid by Roche Pharmaceuticals. Coumadin by Bristol-Myers Squibb and Jantoven by Upsher-Smith Laboratories are branded forms of warfarin, an anticoagulant. Moreover, salicylates, like aspirin, are commonly used to treat patients after stroke. In Europe, Ferrer Grupo markets the neuroprotectant, Somazina. Activase, also known as tissue plasminogen activator, or t-PA, is a thrombolytic agent marketed by Genentech. Many new drug candidates are in development by pharmaceutical and biotech companies, including GlaxoSmithKline, Indeveis Pharmaceuticals, Ipsen, Merck & Co., Neurobiological Technologies, Ono Pharmaceuticals, PAION AG and Wyeth. In addition to drug therapy, companies such as Medtronic and Northstar Neurosciences are developing neurostimulation medical devices to aid in recovery after stroke.

The wound care market is highly competitive, and there are many products available for treating skin wounds, including diabetic foot ulcers. Prescription and over-the-counter products for the prevention and treatment of infections include topical anti-infectives, such as Betadine, silver sulfadiazine, hydrogen peroxide,

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Dakin's solution and hypochlorous acid, and topical antibiotics, such as Neosporine, Mupirocin and Bacitracin. Skin substitute products include Apligraf, manufactured by Organogenesis, Inc., which is an FDA-cleared product using human dermal and epidermal cells placed on a collagen matrix, for the treatment of both venous stasis and diabetic foot ulcers, and Dermagraft, produced by Advanced BioHealing, Inc., which uses human derived dermal cells placed on a polyglactin matrix and is FDA cleared to treat diabetic foot ulcers. In addition, a number of companies are working to develop proprietary pharmaceuticals and cell-based therapies to treat diabetic wound healing, including Agennix, Inc., BioSyntech, Inc., CardioVascular BioTherapeutics, Inc., Cardium Therapeutics, Inc., Genentech Inc., KeraCure, Inc., King Pharmaceuticals, Inc., MacroChem Corporation, Oculus Innovative Sciences, Inc., Rovi Pharmaceutical Laboratories, SanuWave, Inc. and Wyeth.

Most of CytRx's competitors have substantially greater research and product development capabilities and financial, technical, scientific, manufacturing, marketing, distribution and other resources than CytRx.

CytRx may be required to pay milestone and other payments relating to the commercialization of its products.

The agreement by which CytRx acquired rights to arimoclomol and CytRx's other molecular chaperone amplification product candidates provides for milestone payments by CytRx upon the occurrence of certain regulatory filings and approvals related to the acquired products. In the event that CytRx successfully develops arimoclomol or any of these other product candidates, these milestone payments could aggregate as much as \$3.7 million, with the most significant payments due upon the first commercialization of any of these products. In addition, CytRx's agreement with the ALS Charitable Remainder Trust requires CytRx to pay a one-percent royalty interest on worldwide sales of arimoclomol for the treatment of ALS. Also, any future license, collaborative or other agreements CytRx may enter into in connection with its development and commercialization activities may require CytRx to pay significant milestone, license and other payments in the future.

CytRx will rely upon third parties for the manufacture of its clinical product supplies.

CytRx does not have the facilities or expertise to manufacture supplies of any of its product candidates, including arimoclomol or iroxanadine. Accordingly, CytRx is dependent upon contract manufacturers, or potential future strategic alliance partners, to manufacture these supplies. CytRx has manufacturing supply arrangements in place with respect to some of the clinical supplies needed for its planned development programs for arimoclomol for ALS and stroke recovery and for iroxanadine for diabetic ulcers. However, CytRx has no supply arrangements for the commercial manufacture of these product candidates or any manufacturing supply arrangements for any other potential product candidates, and CytRx may not be able to secure needed supply arrangements on attractive terms, or at all. CytRx's failure to secure these arrangements as needed could have a materially adverse effect on its ability to complete the development of its products or to commercialize them.

CytRx is subject to potential liabilities from clinical testing and future product liability claims.

If any of CytRx's products are alleged to be defective, they may expose CytRx to claims for personal injury by patients in clinical trials of CytRx's products or, if CytRx obtains marketing approval and commercializes its products, by patients using CytRx's commercially marketed products. Even if the commercialization of one or more of CytRx's products is approved by the FDA, users may claim that such products caused unintended adverse effects. CytRx currently does not carry product liability insurance covering the commercial marketing of its product candidates. CytRx obtained clinical trial insurance for CytRx's Phase IIa clinical trial and Phase IIb efficacy trial of arimoclomol for the treatment of ALS, and CytRx plans to seek to obtain similar insurance for any other clinical trials that CytRx conducts, as well as liability insurance for any products that CytRx may market. However, CytRx may not be able to obtain additional insurance in the amounts it seeks, if at all. In addition, any insurance maintained by CytRx or CytRx's licensees may not prove adequate in the event of a claim against CytRx. Even if claims asserted

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against CytRx are unsuccessful, they may divert management's attention from CytRx's operations, and CytRx may have to incur substantial costs to defend such claims.

CytRx may be unable to acquire products approved for marketing.

In the future, CytRx may seek to acquire products from third parties that already are being marketed or have been approved for marketing. CytRx has not currently identified any of these products, however, and CytRx does not have any prior experience in acquiring or marketing products and may need to find third parties to market any products that CytRx might acquire. CytRx may also seek to acquire products through a merger with one or more companies that own such products. In any such merger, the owners of CytRx's merger partner could be issued or hold a substantial, or even controlling, amount of stock in CytRx's company or, in the event that the other company is the surviving corporation, in that other company.

CytRx uses hazardous materials and must comply with environmental, health and safety laws and regulations, which can be expensive and restrict how CytRx does business.

CytRx's research and development and manufacturing processes involve the controlled storage, use and disposal of hazardous materials, including biological hazardous materials. CytRx is subject to federal, state and local regulations governing the use, manufacture, storage, handling and disposal of these materials and waste products. Although CytRx believes that its safety procedures for handling and disposing of these hazardous materials comply with the standards prescribed by law and regulation, CytRx cannot completely eliminate the risk of accidental contamination or injury from hazardous materials. In the event of an accident, CytRx could be held liable for any damages that result. CytRx could incur significant costs to comply with current or future environmental laws and regulations.

Risks Associated With CytRx's Investment in RXi***The recent distribution of RXi common stock to CytRx's stockholders is taxable to CytRx.***

On March 11, 2008, CytRx distributed to CytRx's stockholders 4,526,624 shares of RXi common stock. CytRx will recognize gain on the distribution for income tax purposes of approximately \$32.9 million, which is the amount of the excess of the fair market value of the RXi shares distributed over CytRx's basis. This gain will be included in determining whether CytRx has current year earnings and profits subject to taxation. Although CytRx has ascribed a value to RXi shares in the distribution for tax purposes, CytRx's valuation will not be binding on the Internal Revenue Service or any state taxation agency, which could ascribe a different valuation to the distributed RXi shares.

CytRx's ownership interest in RXi may be diluted.

RXi raised approximately \$8.7 million of gross proceeds in a private placement on June 25, 2008. Prior to this recent financing, RXi had indicated that it had sufficient working capital to fund its planned expenditures into the second quarter of 2009 and that it will need to raise substantial amounts of money in the future to fund a variety of activities integral to the development of its business. Under CytRx's agreement with RXi and RXi's other founding stockholders, with some exceptions, CytRx will have preemptive rights to acquire a portion of any new securities sold or issued by RXi in the future so as to maintain CytRx's percentage ownership of RXi. Depending upon the terms and provisions of any proposed sale of new securities by RXi, CytRx's financial condition and other factors, CytRx may be unwilling or unable to exercise CytRx's preemptive rights. CytRx agreed to waive its preemptive rights in connection with RXi's recent financing, which resulted in a reduction of CytRx's percentage ownership in RXi from approximately 49% to approximately 45%. If RXi raises funds through further issuances of additional equity securities in which CytRx does not participate, CytRx's percentage ownership interest in RXi may be diluted further.

Table of Contents***CytRx may elect to dispose of some of its remaining RXi shares, and may not be able to do so on attractive terms.***

As of July 31, 2008, CytRx owned 6,268,881 shares of common stock of RXi, which had a market value of approximately \$45.4 million based upon the market price of RXi common stock as reported on The Nasdaq Capital Market on that date. This compares to CytRx's total assets as of March 31, 2008 of approximately \$50.5 million. CytRx may be deemed to be an investment company within the meaning of the Investment Company Act of 1940, and become subject to the stringent regulations applicable to investment companies, if the value of CytRx's RXi shares, when taken together with the value of any other investment securities CytRx holds, continues to exceed 40% of the value of CytRx's assets for a period of one year, unless CytRx obtains a declaration from the SEC that it is not an investment company. If CytRx is unable to obtain such a declaration, then CytRx would likely seek to sell or otherwise dispose of some of CytRx's RXi shares in order to avoid being an inadvertent investment company.

CytRx also may desire to sell its RXi shares in the future in order to raise funds for the conduct of CytRx's business and operations. If it becomes necessary or advisable for any reason for CytRx to sell its RXi shares, CytRx would have to sell RXi shares pursuant to Rule 144 under the Securities Act, which includes manner of sale and volume limitations applicable to sales by affiliates such as CytRx, or negotiate private sales with third parties. CytRx may be unable to sell or divest of RXi shares at attractive prices, if at all. In addition, any sale or other disposition of RXi shares by CytRx, or the possibility of such sale or disposition, could adversely affect the market price of CytRx's RXi shares.

RXi retains discretion over its use of the funds that CytRx has provided to it.

All funds previously provided by CytRx to RXi may be used by RXi in any manner its management deems appropriate. None of these uses may yield a significant or any return at all for RXi stockholders, including CytRx.

CytRx does not and will not control RXi, and the officers, directors and other RXi stockholders may have interests that are different from those of CytRx.

Although CytRx currently owns a significant portion of RXi's outstanding common stock, CytRx does not control RXi's management or operations. RXi has its own board of directors and management, who are responsible for the affairs and policies of RXi and its development plans. CytRx has entered into letter agreements with the University of Massachusetts Medical School, or UMMS, RXi and RXi's other founding stockholders under which CytRx agrees to vote its shares of RXi common stock for the election of directors of RXi and to take other actions to ensure that a majority of RXi's board of directors are independent of CytRx. The other stockholders of RXi may have interests that are different from CytRx's, and RXi may engage in actions in connection with its business and operations that CytRx believes are not in CytRx's best interests.

Products developed by RXi could eventually compete with CytRx's products for ALS, type 2 diabetes, obesity and other disease indications.

RXi is focusing its initial efforts on developing ribonucleic acid interference, or RNAi, therapeutics for the treatment of a specific form of ALS caused by a defect in the SOD1 gene. Although CytRx is developing arimoclomol for treatment for all forms of ALS, it is possible that products developed by RXi for the treatment of ALS could compete with ALS products that CytRx may develop. RXi also plans to pursue the development of RNAi therapeutics for the treatment of other neurodegenerative diseases and type 2 diabetes, which could compete with products that CytRx may develop for the treatment of these diseases. The potential commercial success of any products that CytRx may develop for these and other diseases may be adversely affected by competing products that RXi may develop.

Table of Contents**Risks Associated With Innovative s Business**

We have an immediate need for capital and will need to raise additional capital in the future to continue our business.

To date, we have generated no product revenues, yet we have had operating and capital expenditures to in-license and begin development of our product candidates. As a result of these expenses and lack of revenue, at March 31, 2008, we had a working capital deficit of approximately \$3.7 million. In addition, as a result of our financial position at December 31, 2007, we received a going concern opinion from our independent registered public accounting firm, which is included in our financial statements included as Appendix F to this proxy statement/prospectus. Until, and unless, we receive approval from the FDA or foreign regulatory authorities for our product candidates, we cannot sell our drugs and will not have product revenues. Currently, our only product candidates are INNO-406, tamibarotene, INNO-206, and INNO-305, and none of them have been approved by the FDA or any foreign regulatory authority for sale. Therefore, for the foreseeable future, we will have to fund all of our operations and capital expenditures from existing cash and short-term investments or future financings. At March 31, 2008, we had cash and short-term investments of only \$301,962. We have insufficient funds to meet our current obligations or future operating expenses. As a result, we have been seeking and will continue to seek additional sources of financing for our operations, which might not be available on favorable terms, if at all. If we do not succeed in raising additional funds on acceptable terms, we will be unable to complete planned pre-clinical and clinical trials or obtain approval of any of our product candidates from the FDA or any foreign regulatory authorities. In addition, we could be forced to discontinue product development, reduce or forego sales and marketing efforts and forego attractive business opportunities. Any additional sources of financing will likely involve the issuance of our equity securities, which would have a dilutive effect on our then current stockholders.

Our internal control over financial reporting is not adequate and may result in financial statements that are incomplete or subject to restatement.

Section 404 of the Sarbanes Oxley Act of 2002 requires significant procedures and review processes of our system of internal controls. Section 404 required that we evaluate and report on our system of internal control over financial reporting beginning with the year ended December 31, 2007. In addition, our independent registered public accounting firm will be required to report on those controls for the year ending December 31, 2009. The additional costs associated with this process may be significant.

After documenting and testing our system, we have identified a material weakness in our accounting and financial functions due to a lack of a segregation of duties among these functions. As a result, our internal control over financial reporting is not effective. As a result of our internal control over financial reporting being ineffective, investors could lose confidence in our financial reports, and our stock price might be adversely affected. In addition, remedying this or any future material weaknesses that we or our independent registered public accounting firm might identify, could require us to incur significant costs and expend significant time and management resources. We cannot assure you that any of the measures we might implement to remedy any such deficiencies would effectively mitigate or remedy such deficiencies.

If we are unable to satisfy our obligations under current and future license agreements, we could lose license rights which would adversely affect our business.

We are a party to various license agreements, each of which requires us to make periodic payments, which in our current financial condition is likely to be difficult or even impossible.

We may enter into additional licenses in the future. Our existing licenses impose, and we expect future licenses will impose, various milestone payments, royalty payments and other obligations on us. If we fail to comply with our obligations in our intellectual property licenses with third parties, we could lose license rights

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that are important to our business. If a licensor challenges our license position, our competitive position and business prospects could be harmed.

We might not obtain the necessary U.S. or worldwide regulatory approvals to commercialize INNO-406, tamibarotene, INNO-206, and INNO-305 or any future product candidate.

We cannot assure you that we will receive the approvals necessary to commercialize and sell our current product candidates, INNO-406, tamibarotene, INNO-206, and INNO-305, or any product candidate we acquire or develop in the future. We will need FDA approval to commercialize any product candidate in the U.S. and approvals from the equivalent regulatory authorities in foreign jurisdictions to commercialize any product candidate in those jurisdictions. In order to obtain FDA approval of any product candidate, we must submit to the FDA an NDA demonstrating that the product candidate is safe for humans and effective for its intended use. This demonstration requires significant research and animal tests, which are referred to as pre-clinical studies, as well as human tests, which are referred to as clinical trials. Satisfaction of the FDA's regulatory requirements typically takes many years, depends upon the type, complexity and novelty of the product candidate and requires substantial resources for research, development and testing. We cannot predict whether our research and clinical approaches will result in drugs that the FDA considers safe for humans and effective for indicated uses, including our current product candidates.

Even if we comply with all FDA requests, the FDA may ultimately reject any of our NDAs. We cannot be sure that we will ever obtain regulatory clearance for our current product candidates or any other product. Failure to obtain FDA approval of our product candidates will severely undermine our business by leaving us without a saleable product, and therefore without any source of revenues, until another product candidate can be developed. There is no guarantee that we will ever be able to develop or acquire another product candidate.

In foreign jurisdictions, we must receive approval from the appropriate regulatory authorities before we can commercialize any drugs. Foreign regulatory approval processes generally include all of the risks associated with the FDA approval procedures described above. We cannot assure you that we will receive the approvals necessary to commercialize any product candidate for sale outside the United States.

Delays in the regulatory approval process might harm our ability to commercialize any product candidate.

The FDA has substantial discretion in the drug approval process and may require us to conduct additional pre-clinical and clinical testing or to perform post-marketing studies for any of our current product candidates or any product candidate we acquire or develop in the future. The approval process might also be delayed by changes in government regulation, future legislation or administrative action or changes in FDA policy that occur prior to or during our regulatory review. Delays in obtaining regulatory approvals might:

delay commercialization of, and our ability to derive product revenues from, any product candidate;

impose costly procedures on us; and

diminish any competitive advantages that we might otherwise enjoy if competing products are able to be marketed before our products.

Delays in the regulatory approval process in foreign jurisdictions could have the same negative impact on our drug commercialization plans in those jurisdictions.

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Our current product candidates are in the early stage of clinical trials or are still in pre-clinical trials.

Our current product candidates, INNO-406, tamibarotene, INNO-206, and INNO-305, are still in various stages of development and require some additional pre-clinical testing and extensive clinical testing. That testing might show that these compounds have little or no efficacy. Even if pre-clinical or clinical trials for these compounds are positive, we cannot predict with any certainty if or when we might submit a new drug application, or NDA, for regulatory approval of any of them or whether such an NDA will be accepted. Failure to submit or receive approval of an NDA for any of our current product candidates or any other product candidate we might acquire will severely undermine our business by leaving us with few or no saleable products, and therefore with limited or no sources of revenues, until another product candidate can be developed. Delays in the approval of an NDA could:

delay commercialization of, and our ability to derive product revenues from, any product candidate;

impose costly procedures on us; and

diminish any competitive advantages that we might otherwise enjoy if competing products are able to be marketed before our products.

Our INNO-406 IND was allowed on June 15, 2006. Our Phase I study for INNO-406 began in July 2006 and is ongoing. Our expectations for this product are based on preclinical studies conducted on animals and Phase I clinical study results to date.

An IND for INNO-305 was allowed in October 2006. The Phase I study for INNO-305 began in October 2006 and is ongoing. Our expectations for INNO-305 are based on pre-clinical studies and on analogous programs in Germany and Japan which showed positive clinical outcomes in Phase I and II clinical testing.

An IND for tamibarotene was allowed in May 2007. The Phase II pivotal clinical study began in September 2007 and is ongoing.

Given the early stages and limited scope of these various studies, we have very limited safety and efficacy data on our products. We cannot determine whether the prior or current studies, including any preliminary positive data, for the products are predictive of clinical safety or efficacy. These same risks are true for our planned development of INNO-206 for which an IND was allowed in April 2007.

Clinical trials are very expensive, time-consuming and difficult to design and implement.

Human clinical trials are very expensive and difficult to design and implement, in part because they are subject to rigorous regulatory requirements. The clinical trial process is also time consuming. We estimate that clinical trials of our product candidates will take at least several years to complete. Further, failure can occur at any stage of the trials, and we could encounter problems that could delay or cause us to abandon or repeat clinical trials. The commencement and completion of clinical trials, including those for our current product candidates or any future compound, might be delayed by several factors, including:

unforeseen safety issues;

determination of dosing issues;

lack of effectiveness during clinical trials;

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slower than expected rates of patient recruitment;

inability to monitor patients adequately during or after treatment; and

inability or unwillingness of medical investigators to follow our clinical protocols.

In addition, we or the FDA might suspend any of our clinical trials at any time if it appears that we are exposing participants to unacceptable health risks or if the FDA finds deficiencies in the IND submission or the conduct of that trial. Therefore, we cannot predict with any certainty the schedule for future clinical trials.

The results of our clinical trials might not support our product candidate claims.

Even if our clinical trials are completed as planned, we cannot be certain that their results will support our product candidate claims. Success in pre-clinical testing and early clinical trials does not ensure that later clinical trials will be successful, and we cannot be sure that the results of later clinical trials will replicate the results of prior clinical trials and pre-clinical testing. The clinical trial process may fail to demonstrate that our product candidates are safe for humans and effective for indicated uses. This failure may cause us to abandon a product candidate and might delay development of other product candidates. Any delay in, or termination of, a clinical trial will delay the filing of the related NDA with the FDA and, ultimately, our ability to commercialize that product candidate and generate product revenues from that product. In addition, our Phase I clinical trials for INNO-406 and INNO-305 and our Phase II pivotal clinical trial for tamibarotene involve, and future trials for these and our other product candidates might involve, a small number of patients. Because of the small sample size, the results of these clinical trials might not be indicative of future results.

Physicians and patients might not accept and use our drugs.

Even if the FDA approves our current product candidates, physicians and patients might not accept and use them or any other product we might develop. Acceptance and use of our products will depend upon a number of factors including:

perceptions by members of the health care community, including physicians, about the safety and effectiveness of our drug;

cost-effectiveness of our products relative to competing products;

availability of reimbursement for our products from government or other healthcare payers; and

effectiveness of marketing and distribution efforts by us and our licensees and distributors, if any.

Because we expect sales of our product candidates, if approved, to generate substantially all of our product revenues for the foreseeable future, the failure of these drugs to find market acceptance would harm our business and could require us to seek additional financing.

Our product candidates might have unintended results, which might not be discovered until after commercialization.

Any of our product candidates, even if successfully tested, approved and commercialized, could result in unintended consequences in consumers. Any consequence might not be discovered for many years after commercialization of a product. Such a development could have a negative impact on our earnings and operations.

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Our drug development program depends upon third-party researchers who are outside our control.

We depend upon independent investigators and collaborators, such as universities, medical institutions and clinical research organizations, to conduct our pre-clinical and clinical trials under agreements with us. These collaborators are not our employees and we cannot control the amount or timing of resources that they devote to our programs. These investigators might not assign as great a priority to our programs or pursue them as diligently as we would if we were undertaking such programs ourselves. If outside collaborators fail to devote sufficient time and resources to our drug development programs, or if their performance is substandard, the approval of our FDA applications, if any, and our introduction of new drugs, if any, will be delayed. These collaborators might also have relationships with other commercial entities, some of whom might compete with us. If our collaborators assist our competitors at our expense, our competitive position would be harmed.

We will rely exclusively on third parties to formulate and manufacture our product candidates.

We have no experience in drug formulation or manufacturing and do not intend to establish our own manufacturing facilities. We lack the resources and expertise to formulate or manufacture our own product candidates. For INNO-406, we have ongoing production contracts for clinical material for our current Phase I clinical trial. Product for future trials will require additional contracts with our current suppliers. We have contracted with a third party to supply, store and distribute tamibarotene for our clinical trials and any possible commercialization. We currently do not have contracts for product supply for our planned future clinical trials for INNO-206 but have identified vendors with the capability to perform the development and manufacturing steps necessary to manufacture the product. We believe we currently have ample supplies of INNO-305 for its continuing Phase I trial. If any of our current product candidates or any other product candidate we might develop or acquire in the future, receives FDA approval, we will rely on one or more third-party contractors to manufacture our products. Our reliance on third-party manufacturers exposes us to the following risks:

we might not be able to retain current third party manufacturers or other service providers or attract new ones due to our financial condition;

we might be unable to identify manufacturers on commercially reasonable terms or at all because the number of potential manufacturers is limited and the FDA must approve any replacement contractor. This approval would require new testing and compliance inspections. In addition, a new manufacturer would have to be educated in, or develop substantially equivalent processes for, production of our products after receipt of FDA approval, if any;

our third-party manufacturers might be unable to formulate and manufacture our drugs in the volume and of the quality required to meet our clinical needs and commercial needs, if any;

our future contract manufacturers might not perform as agreed or might not remain in the contract manufacturing business for the time required to supply our clinical trials or to successfully produce, store and distribute our products;

drug manufacturers are subject to ongoing periodic unannounced inspection by the FDA, the Drug Enforcement Administration, and corresponding state and foreign agencies to ensure strict compliance with good manufacturing practice and other government regulations and corresponding foreign standards. We do not have control over third-party manufacturers' compliance with these regulations and standards; and

if any third-party manufacturer makes improvements in the manufacturing process for our products, we might not own, or might have to share, the intellectual property rights to the innovation.

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Each of these risks could delay our clinical trials, the approval, if any, of our product candidates by the FDA or the commercialization of our product candidates or result in higher costs or deprive us of potential product revenues. Any of these events could impair our earnings and financial condition.

We have no experience selling, marketing or distributing products and no internal capability to do so.

We currently have no sales, marketing or distribution capabilities. Currently, we intend to perform selling and marketing activities ourselves which will require significant capital expenditures, management resources and time to establish and develop an in-house marketing and sales force with technical expertise. We do not currently have the resources to allocate to the sales and marketing of our proposed products. To the extent that we decide not to, or are unable to establish sales and marketing activities for our products, our future success will depend, in part, on our ability to enter into and maintain collaborative relationships for such capabilities, the success of which will be dependent upon the collaborator's strategic interest in the products under development and the collaborator's ability to successfully market and sell any such products. If we do pursue collaborative arrangements regarding the sales and marketing of our products, there can be no assurance that we will be able to establish or maintain such collaborative arrangements, or if able to do so, that they will have effective sales forces. There can also be no assurance that we will be able to establish or maintain relationships with third-party collaborators or develop in-house sales and distribution capabilities. To the extent that we depend on third parties for marketing and distribution, any revenues we receive will depend upon the efforts of such third parties, and there can be no assurance that such efforts will be successful. In addition, there can also be no assurance that we will be able to market and sell our products in the United States or overseas.

Our potential future earnings may be reduced should we decide to out-license one or more of our drug product candidates.

We may decide to out-license one or more of our drug product candidates, reducing future profits available to us. Should we license any one of our drug candidates to another pharmaceuticals company, it would allow the partner to market and sell our compounds in any of the markets allowable under the license agreement governing the product. If one of our products is out-licensed, the profit available to us may be substantially reduced from what might otherwise be possible should we retain all rights to the product and market and sell it directly.

If we cannot compete successfully for market share against other drug companies, we might not achieve sufficient product revenues and our business will suffer.

The market for each of our current product candidates, as for most drugs, is characterized by intense competition and rapid technological advances. If any product candidate receives FDA approval, it will compete with a number of existing and future drugs and therapies developed, manufactured and marketed by others. The most significant competitors for INNO-206 are Poniard Pharmaceuticals and Celgene, each of which is developing a compound for small cell lung cancer. Cell Genesys is developing a vaccine for acute leukemia that may be competitive with INNO-305. Novartis and Bristol-Myers Squibb have each developed a treatment for chronic myelogenous leukemia that may be competitive with INNO-406. The most significant competitors for tamibarotene are treatment with ATRA, a generic compound, and Cephalon's arsenic trioxide. These or other future competing products might provide greater therapeutic convenience or clinical or other benefits for a specific indication than our products, or might offer comparable performance at a lower cost. If our products fail to capture and maintain market share, we might not achieve sufficient product revenues, if at all, and our business will suffer.

We will compete against fully integrated pharmaceutical companies and smaller companies that are collaborating with larger pharmaceutical companies, academic institutions, government agencies and other public and private research organizations. Many of these competitors have oncology compounds already

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approved or in development. As noted above, Poniard Pharmaceuticals and Celgene are each developing a compound for small cell lung cancer that would compete with INNO-206. Cell Genesys is developing a vaccine for acute leukemia that would compete with INNO-305. Novartis and Bristol-Myers Squibb have each developed a treatment for chronic myelogenous leukemia that would compete with INNO-406. ATRA and arsenic trioxide could both compete with tamibarotene. These competitors, either alone or together with their collaborative partners, operate larger research and development programs or have substantially greater financial resources than we do, as well as significantly greater experience in:

developing drugs;

undertaking pre-clinical testing and human clinical trials;

obtaining FDA and other regulatory approvals of drugs;

formulating and manufacturing drugs; and

launching, marketing and selling drugs.

We might not be able to compete successfully with these entities due to our limited operating history and limited resources.

Developments by competitors might render our products or technologies obsolete or non-competitive.

Companies that currently sell both generic and proprietary compounds for the treatment of cancer and related diseases include but are not limited to Amgen, Sanofi-Aventis, Bristol-Myers Squibb, Genentech, Eli Lilly, Johnson & Johnson and Celgene. Alternative technologies are being developed to treat cancer and related diseases by numerous companies including Bristol-Myers Squibb, MGI Pharma, Merck and Genentech, several of which are in advanced clinical trials. There also are cancer tumor inhibiting therapies that are in the late stage of development, and that are being developed by larger established companies: Alimta (Eli Lilly), Avastin (Genentech), Eloxatin (Sanofi-Aventis), Erbitux (Bristol-Myers Squibb and Imclone Systems) and Tarceva (Genentech). Cell Genesys is developing a vaccine for acute leukemia. Poniard Pharmaceuticals and Pharmion are developing compounds for small cell lung cancer. Novartis and Bristol-Myers Squibb have each developed a treatment for chronic myelogenous leukemia that would compete with INNO-406. ATRA and arsenic trioxide could compete with tamibarotene. In addition, companies pursuing different but related fields represent substantial competition. Any of these competing therapies could prove to be more effective than INNO-406, tamibarotene, INNO-206, or INNO-305 or any future therapy of ours. In addition, many of these organizations competing with us have substantially greater capital resources, larger research and development staffs and facilities, longer drug development history in obtaining regulatory approvals and greater manufacturing and marketing capabilities than we do. These organizations also compete with us to attract qualified personnel and parties for acquisitions, joint ventures or other collaborations. Any or all of these competitors might inhibit or prevent entirely the successful commercialization of our products.

If we fail to adequately protect or enforce our intellectual property rights or secure rights to patents of others, the value of our intellectual property rights would diminish.

Our success, competitive position and future revenues will depend in part on our ability and the abilities of our licensors to obtain and maintain patent protection for our products, methods, processes and other technologies, to preserve our trade secrets, to prevent third parties from infringing on our proprietary rights and to operate without infringing the proprietary rights of third parties.

We currently hold exclusive patent rights, including rights under U.S. patents and U.S. patent applications as well as rights under foreign patents and patent applications on our current product candidates.

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However, we cannot predict for our current product candidates or any other proprietary property we might acquire: the degree and range of protection any patents will afford us against competitors, including whether third parties will find ways to invalidate or otherwise circumvent our patents;

if and when patents will issue;

whether or not others will obtain patents claiming aspects similar to those covered by our patents and patent applications; or

whether we will need to initiate litigation or administrative proceedings to protect or defend other intellectual property rights which might be costly whether we win or lose.

Our success also depends upon the skills, knowledge and experience of our scientific and technical personnel, our consultants and advisors as well as our licensors and contractors. To help protect our proprietary know-how and our inventions for which patents might be unobtainable or difficult to obtain, we rely on trade secret protection and confidentiality agreements. To this end, it is our policy to require all of our employees, consultants, advisors and contractors to enter into agreements which prohibit the disclosure of confidential information and, where applicable, require disclosure and assignment to us of the ideas, developments, discoveries and inventions important to our business. These agreements might not provide adequate protection for our trade secrets, know-how or other proprietary information in the event of any unauthorized use or disclosure or the lawful development by others of such information. If any of our trade secrets, know-how or other proprietary information is disclosed, the value of our trade secrets, know-how and other proprietary rights would be significantly impaired and our business and competitive position would suffer.

If we infringe the rights of third parties we could be prevented from selling products, forced to pay damages, and defend against litigation.

If our products, methods, processes and other technologies infringe the proprietary rights of other parties, we could incur substantial costs and we might have to:

obtain licenses, which might not be available on commercially reasonable terms, if at all;

abandon an infringing drug candidate;

redesign our products or processes to avoid infringement;

stop using the subject matter claimed in the patents held by others;

pay damages; or

defend litigation or administrative proceedings that might be costly whether we win or lose, and which could result in a substantial diversion of our financial and management resources.

Any of these events could substantially harm our earnings, financial condition and operations.

Our ability to generate product revenues will be diminished if our drugs sell for inadequate prices or patients are unable to obtain adequate levels of reimbursement.

Our ability to commercialize our drugs, alone or with collaborators, will depend in part on the extent to which reimbursement will be available from:

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government and health administration authorities;

private health maintenance organizations and health insurers; and

other healthcare payers.

Significant uncertainty exists as to the reimbursement status of newly approved healthcare products. Healthcare payers, including Medicare, are challenging the prices charged for medical products and services. Government and other healthcare payers increasingly attempt to contain healthcare costs by limiting both coverage and the level of reimbursement for drugs. Even if our product candidates are approved by the FDA, insurance coverage might not be available, and reimbursement levels might be inadequate, to cover our drugs. If government and other healthcare payers do not provide adequate coverage and reimbursement levels for our product, once approved, it might inhibit or prevent market acceptance of such product.

We might be exposed to liability claims associated with the use of hazardous materials and chemicals.

Our research and development activities might involve the controlled use of hazardous materials and chemicals. Although we believe that our safety procedures for using, storing, handling and disposing of these materials comply with federal, state and local laws and regulations, we cannot completely eliminate the risk of accidental injury or contamination from these materials. In the event of such an accident, we could be held liable for any resulting damages and any liability could materially adversely affect our business, financial condition and results of operations. In addition, the federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of hazardous or radioactive materials and waste products might require us to incur substantial compliance costs that could materially adversely affect our business, financial condition and results of operations.

We might incur substantial liabilities and might be required to limit commercialization of our products in response to product liability lawsuits.

The testing and marketing of medical products entail an inherent risk of product liability. If we cannot successfully defend ourselves against product liability claims, we might incur substantial liabilities or be required to limit commercialization of our products. Our inability to obtain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of our products. While we carry clinical trial insurance that includes product liability insurance, the coverage might not be sufficient to cover any claims. We intend all our agreements with our collaborators to indemnify us for their errors and omissions. However, we might not be able to obtain such contractual protection. Even if our agreements with any future collaborators entitle us to indemnification against losses, such indemnification might not be available or adequate should any claim arise.

Changes in either patent laws or in interpretations of patent laws in the United States and other countries may diminish the value of our intellectual property or narrow the scope of our patent protection.

The laws of foreign countries may not protect our rights to the same extent as the laws of the United States. Therefore, enforceability or scope of our patents in the United States or in foreign countries cannot be predicted with certainty, and, as a result, any patents that we own or license may not provide sufficient protection against competitors.

Some jurisdictions have laws that permit the government to force a patentee to grant a license to a third party for commercialization of a patented product if the government concludes that the product is not sufficiently developed or not meeting the health needs of the population. Such compulsory licensing laws are very rarely invoked outside of South America and Africa. In addition, a number of countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent

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owner may be limited to monetary relief and may be unable to enjoin infringement, which could materially diminish the value of the patent. Such compulsory licenses could be extended to include some of our product candidates, which may limit our potential revenue opportunities.

Because of the extensive time required for development, testing and regulatory review of a new drug, it is possible that any related patent may expire before any of our product candidates can be commercialized or remain in force for only a short period following commercialization. In either case, this would reduce any advantages of the patent.

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CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING INFORMATION

This proxy statement/prospectus contains a number of forward-looking statements, including statements about the financial conditions, results of operations and the prospects of Innovive and CytRx, and may include statements relating to the period following the completion of the merger. Forward-looking statements are typically identified by words such as **plan, believe, expect, anticipate, intend, outlook, estimate, forecast, project** and other words and expressions.

The forward-looking statements involve certain risks and uncertainties. The ability of Innovive and CytRx to predict results or the actual effects of their respective plans and strategies is subject to inherent uncertainty. Factors that may cause actual results to differ materially from such forward-looking statements include, among others, those set forth under **Risk Factors** in this proxy statement/prospectus, as well as those discussed and identified in public filings with the SEC made by Innovive and CytRx.

Because these forward-looking statements are subject to assumptions and uncertainties, actual results may differ materially from those expressed or implied by these forward-looking statements. You are cautioned not to place undue reliance on these statements, which speak only as of the date of this proxy statement/prospectus.

All subsequent written and oral forward-looking statements concerning the merger or other matters addressed in this proxy statement/prospectus and attributable to Innovive or CytRx or any person acting on behalf of Innovive or CytRx are expressly qualified in their entirety by the cautionary statements contained or referred to in this proxy statement/prospectus. Except to the extent required by applicable law or regulation, Innovive and CytRx undertake no obligation to update these forward-looking statements to reflect events or circumstances after the date of this proxy statement/prospectus or to reflect the occurrence of unanticipated events.

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THE MERGER

The following discussion of the merger is qualified in its entirety by reference to the merger agreement, which is attached to this proxy statement/prospectus as Appendix A. You should read the merger agreement carefully.

Background of the Merger

Innovive is a development-stage company with several therapeutic candidates in development. As a development-stage company without any marketable product, we do not have a revenue stream. Consequently, Innovive, like many such companies, is dependent on a steady source of cash infusions to continue operations.

The only sources of funds available to us are equity or debt financings that would provide a cash infusion or partnerships or other strategic alliances with third parties that would provide a revenue stream.

Since 2005, our board of directors and management have worked to secure our future by expanding our drug candidate pipeline and obtaining the funds necessary to develop and commercialize these drug candidates. As part of this process, our board and management have considered a range of strategic alternatives, including public and private equity and debt financings, corporate partnering and licensing strategies and more recently a merger strategy, all with a view to increasing stockholder value.

Innovive completed a private placement of convertible notes in June 2005, a private placement of Series A preferred stock in June 2006 and a private placement of common stock in April 2007, raising net proceeds of \$2,249,984, \$12,501,135 and \$13,872,046, respectively. As is normal with many development-stage companies, these financings were completed when we were low on cash, because these financings tend to provide operating funds for a relatively short period of time during which the company conducts pre-clinical and/or clinical studies to advance the development of one or more drug candidates.

After the completion of our common stock financing in April 2007, we had funds to allow us to operate to approximately October 2007 if all programs were to be pushed forward at full speed. These funds were deployed primarily to the development of INNO-406, INNO-206 and tamibarotene, supporting dosing studies for INNO-406, a phase II study for INNO-206 and a pivotal phase II study for tamibarotene.

Shortly after the closing of the April 2007 financing, management began planning the pursuit of another larger financing. In addition, management considered other strategic alternatives, including merger and acquisition opportunities and strategic partnerships for the development of one or more of our product candidates.

Beginning in May 2007, management began interviewing investment bankers to conduct a common stock financing. By August 2007, the board authorized the engagement of one investment banker to serve as lead agent and two other investment bankers to act as co-agents in a private placement of Innovive common stock. These investment banks were engaged in August 2007.

During the summer and early fall of 2007, the investment banks attempted to put together an investor pool. However, by October 2007, no definitive investor group or terms were established. One obstacle to a financing was a price protection provision that was agreed to in the April 2007 common stock financing. This price protection provision provided that in the event that we issued shares of our common stock at a price per share less than the purchase price of the offering, which was \$2.73, at any time prior to October 24, 2007, then each investor would have the right to receive a number of additional shares of our common stock equal to (i) the aggregate purchase price per unit paid by the investor in the offering, divided by the subsequent share purchase price, (ii) less the number of shares of common stock purchased by the investor in the offering.

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Also during the summer and early fall of 2007, management sought other strategic alternatives and held discussions with interested parties. Based on these inquiries, in October 2007, our board of directors began considering other strategic alternatives. At this point, the investment banks had found only one lead investor for the private placement, which was not significant enough to attract other investors. While the investment banks continued to seek investors for the financing, management held conversations with three potential investors, two of which were interested in bringing in its own investor group and the other of which was interested in a significant investment on its own. In addition, management had identified four strategic partnership candidates for INNO-406.

In early November 2007, our board determined that a strategic partnership for INNO-406 was increasingly unlikely without further clinical data, based on feedback received by management in its discussions with the interested parties. At a special meeting on November 13, 2007, our board authorized management to negotiate a written term sheet with one of the entities that had expressed interest in developing its own investor group to invest in the company's stock. A term sheet from this investor, with two other investors, was signed on November 26, 2007. The term sheet allowed the investor group 10 days to complete due diligence. At the conclusion of the 10 days, on December 7, 2007, the investor group informed Mr. Kelly, our President and Chief Executive Officer, that it had decided not to proceed with the investment.

Subsequent to the expiration of the above term sheet, negotiations with an entity in the investor group noted above and an additional investor proceeded and at a special meeting on December 21, 2007, our board approved the execution of a term sheet with that investor group. One of the conditions to the term sheet was that at least three institutional investors were to be secured before the investor group would commit to the investment. This condition was not met and on January 11, 2008 the investors informed Mr. Kelly that they would not be proceeding with an investment in Innovive.

At a regular meeting on January 15, 2008, our board considered possible strategic alternatives, including an equity or debt financing, a sale of assets or a sale of the company, and considered the discussions held by management with third parties to date on all of these alternatives. Our board authorized seeking a bridge financing with Paramount Biocapital, Inc. as placement agent. Paramount Biocapital had successfully conducted our 2005 bridge financing and our two equity financings.

At this point, we did not have sufficient funds to cover our current obligations or future operating expenses, a situation that first developed in October 2007. On January 17, 2008, we terminated four employees, which represented approximately one-half of our employees. In addition, our ongoing clinical programs were reduced to include only essential steps necessary to obtain new data. At a special board meeting on January 29, 2008, management updated our board on potential merger or acquisition parties. Our board also was advised by bankruptcy lawyers on the process and impact of bankruptcy and our board's and Innovive's duties were Innovive to declare bankruptcy. At the end of the meeting, our board authorized management to continue negotiating with Paramount Biocapital to act as placement agent in a bridge financing of debt.

At a regular meeting held on February 13, 2008, our board reviewed the status of possible transactions and considered the benefits and challenges of a financing, a merger or acquisition, or a sale of company assets. After deliberation, our board approved a placement agreement with Paramount Biocapital. Paramount Biocapital, however, was not able to find investors willing to invest a sufficient amount of capital, and it ceased its efforts on our behalf in March. During this time, management continued to contact third parties about a possible strategic transaction with Innovive.

Throughout March and April, our management contacted several companies who subsequently expressed interest in conducting additional due diligence on our product candidates. One of these companies was CytRx. CytRx was introduced to the company through one of our directors, J. Jay Lobell, by means of a telephone call on April 2, 2008. Mr. Lobell knew Steven A. Kriegsman, the President and Chief Executive Officer of CytRx, and had contacted him earlier on April 2, 2008 to determine if CytRx had any interest in a

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transaction with Innovive. During the call, David Haen, Vice President Business Development of CytRx, expressed interest in learning more about us and sent over a mutual confidentiality agreement that we and CytRx executed on April 4, 2008. CytRx also provided a diligence checklist to us at that time and, in response, CytRx was granted access to our virtual data room that day.

Our management facilitated the diligence process by providing the requested information to all of the companies that requested information. Three of these companies provided term sheets in April that provided for the acquisition of certain of our assets for equity in the acquiring company. None of the term sheets addressed acquiring the company as a whole.

Mr. Lobell arranged for a telephone call on April 23, 2008 among himself, Mr. Kriegsman and Mr. Haen of CytRx, and Lindsay Rosenwald, an affiliate and major stockholder of Innovive. On the call, the parties discussed the terms of a possible offer by CytRx to acquire Innovive and related matters.

On April 25, 2008, at a regular meeting of our board, management reviewed with the board term sheets that had been received from these three companies. Management also informed the board that it believed that term sheets were imminent from four other companies, one of which was CytRx. Our board reviewed each term sheet it had received, as well as the expected terms to be contained in the term sheets expected from the other four entities, including CytRx. Our board concluded that it needed more time to consider the current and expected term sheets and noted that a decision would have to be made in the early part of the next week, given our cash position.

During subsequent diligence discussions with CytRx, our management expressed the need to receive either a term sheet or letter agreement from CytRx and the desire of our board of directors to move quickly in order, among other things, to demonstrate to TMRC Inc., the licensor of tamibarotene, and Medpace, Inc., a contract research organization working on the clinical development of three Innovive products, that we were making progress on a possible transaction and would be able to meet our financial obligations to them.

On May 1, 2008, CytRx provided Mr. Kelly a term sheet for the acquisition of Innovive pending certain remaining due diligence, including face-to-face meetings scheduled for May 6 and 7. On or about this time, Mr. Lobell spoke with Mr. Kriegsman and Mr. Haen regarding the term sheet and suggested that CytRx discuss further with Innovive management the clinical development assumptions underlying CytRx's term sheet.

On May 6 and 7, 2008, CytRx management, including Mr. Kriegsman, Jack Barber, Ph.D., Chief Scientific Officer, Benjamin S. Levin, General Counsel, Vice President of Legal Affairs and Secretary, Scott Wieland, Ph.D., Vice President of Clinical and Regulatory Affairs, and Mr. Haen, met with our management at our offices in New York City. On May 8, 2008, Mr. Kelly informed Mr. Haen by telephone that Innovive had received another offer for the entire company and encouraged CytRx to revise the term sheet prior to the special meeting of our board of directors scheduled for the next day. CytRx, however, declined to revise its offer.

At the special meeting held on May 9, 2008, our board of directors voted unanimously to accept the CytRx term sheet and authorized management to negotiate a binding merger agreement.

Mr. Kelly then contacted several prospective investment advisors, including Chartered Capital Advisers, Inc., to act as the company's financial advisor in connection with the possible merger with CytRx. We engaged Chartered on May 29, 2008.

From May 9 through June 5, 2008, we and CytRx negotiated the final terms of the merger agreement. CytRx also conducted additional due diligence, including at a meeting on May 28, 2008 between Dr. Wieland and representatives of Medpace, Inc. Mr. Haen, Dr. Wieland and John Caloz, CytRx's Chief Accounting

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Officer, also met and conducted further diligence with our management at our offices in New York on May 28 through 30.

Our board of directors formally met on June 6, 2008 in a special meeting, at which all the members of our board were in attendance, for the purpose of reviewing the terms of the proposed merger agreement. Also in attendance were Ronald Quintero of Chartered, our financial advisor, and David Mannheim of Wyrick Robbins Yates & Ponton LLP, our legal counsel. At this meeting, Mr. Kelly provided a report and analysis related to the terms of the proposed transaction, including, without limitation, the value of the consideration to be received in the transaction by our stockholders as of that date and the conditions to closing the transaction. Mr. Kelly and J. Gregory Jester, our Chief Financial Officer, also reported on the status of our recent financing efforts and financial condition. Mr. Mannheim reviewed the terms of the merger agreement and the loan and security agreement and the relevant legal approvals necessary to consummate the merger. Mr. Quintero reviewed with the board Chartered's analysis of Innovive and the merger proposal, at the conclusion of which he presented the board with Chartered's written opinion that the merger is fair, from a financial point of view, to the stockholders of Innovive. After deliberating, our board determined that the merger agreement and the transactions contemplated thereby, including the merger, were fair to, advisable and in the best interests of the Innovive stockholders and each other relevant corporate constituency and unanimously voted to approve the terms of the merger agreement and the merger.

Innovive's Reasons for the Merger

After careful consideration, our board of directors, by a unanimous vote of the directors, has determined that the merger agreement is advisable, fair to, and in the best interests of Innovive and its stockholders, has approved and authorized in all respects the merger agreement, and recommends that you vote **FOR** the approval of the merger agreement.

In considering the recommendation of our board of directors with respect to the merger agreement, you should be aware that some of our directors and executive officers who participated in meetings of the board of directors have interests in the merger that are different from, or in addition to, the interests of our stockholders generally. See **The Merger** Interests of Certain Persons in the Merger beginning on page 47.

In the course of deliberations, our board reviewed Innovive's historical, present and projected financials under various scenarios, and its historical and short and long-term strategic objectives, the opportunities in the marketplace that Innovive is pursuing and the risks associated therewith.

In reaching the decision to approve and authorize the merger, the merger agreement, the loan and security agreement and the other transactions contemplated under the merger agreement, our board of directors consulted with senior management and Innovive's financial and legal advisors, and considered a number of factors, including, but not limited to, those set forth below.

Innovive stockholders will have the opportunity to participate in the potential growth of CytRx after the merger;

the increased ability of the combined company to secure investment capital and financing for expansion of the combined company's business;

the market potential for the combined company's drug development pipeline;

the historical, current and prospective financial condition, results of operations and cash flows of CytRx;

CytRx's seasoned management team, greater financial resources and access to capital;

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the shares of CytRx common stock issued to Innovive stockholders as merger consideration will be registered with the SEC and will be freely tradable for Innovive stockholders who are not affiliates of CytRx;

Innovive's prospects to continue as an independent company;

the historic, current and prospective financial condition, results of operations and cash flows of Innovive, particularly the fact that due to cash limitations, Innovive has decreased, and most likely will have to cease, its research and clinical operations;

without the completion of a strategic transaction like the merger, Innovive will likely be forced to file for federal bankruptcy protection;

based on our historical efforts over a period of nearly a year to attract capital and to pursue alternative transactions, the low probability that any alternative transaction would be available to Innovive that would provide the same or greater value to our stockholders within a reasonable time frame;

the terms and conditions of the merger agreement and the loan and security agreement, including the merger consideration and closing conditions;

the belief that the terms of the merger agreement, including the parties' representations, warranties and covenants and the conditions to the parties' respective obligations, are reasonable;

the terms of the transaction, including the merger consideration and the loan and security agreement, as compared to the terms that might be achieved with other similar transactions with other potential merger partners;

dissenters' rights would be available to Innovive stockholders under applicable state law;

apart from the approval by stockholders, completion of the merger would not require any material consents or approvals;

the likelihood that the merger will be consummated on a timely basis;

the fact that the merger agreement permits our board of directors to change its recommendation of the transaction to stockholders in connection with an unsolicited superior proposal by a third party for an alternative transaction if the failure to do so would be reasonably likely to violate the board of directors' fiduciary obligations under applicable law, provided that Innovive complies with certain requirements, including payment of a \$1.5 million termination fee to CytRx;

the amount of the termination fee payable by us and the circumstances under which it is payable are typical for transactions of this size and type and were necessary to induce CytRx to enter into the merger agreement;

Chartered's financial analysis and its written opinion to our board of directors that as of June 6, 2008, and based upon and subject to the factors and assumptions set forth in its opinion, the merger is fair from a financial point of view to the Innovive stockholders; and

the support agreements of our directors and officers and their affiliates who own beneficially an aggregate of approximately 22% of the shares of our common stock entitled to vote at the special meeting to vote all shares that they control in favor of the merger agreement, as well as their

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willingness to grant CytRx proxies to vote such shares in favor of the approval of the merger agreement, and the fact that the support agreements can be terminated by our directors and officers and their affiliates if the merger agreement is terminated by us.

Our board of directors also considered the following potentially negative factors in reaching its decision to approve and authorize in all respects the merger agreement, the merger, and the other transactions contemplated under the merger agreement:

restrictions in the merger agreement on solicitation generally prohibit us from soliciting any acquisition proposal or offer for a merger or business combination with any other party, including a proposal that might be advantageous to our stockholders when compared to the terms and conditions of the merger, and further prohibit us from entering into discussions regarding unsolicited proposals unless certain requirements are met;

if the merger is not completed for whatever reason we will have incurred substantial expenses, and will have to repay CytRx for advances under the loan and security agreement, which we may not be able to pay, in which event CytRx would be entitled to pursue its remedies under the loan and security agreement, including a possible foreclosure sale of all or substantially all of our assets;

if the merger is not completed under certain circumstances specified in the merger agreement, we may be required to repay to CytRx any funds loaned to Innovive pursuant to the loan and security agreement, which may deter third parties from proposing or pursuing alternative business combinations that might result in greater value to our stockholders than the merger;

the interests of our directors and officers may be different in certain respects from the interests of our stockholders, generally, as described under The Merger - Interests of Innovive's Directors and Executive Officers in the Merger ;

the restrictions on the conduct of our business prior to the consummation of the merger, which, subject to specific limitations, may delay or prevent us from taking certain actions during the time that the merger agreement remains in effect;

the requirement under the terms of the merger agreement that we pay CytRx a termination fee if we terminate the merger agreement to accept a superior proposal for the acquisition of Innovive, if our board of directors changes its recommendation concerning the merger agreement, or in certain other circumstances (including, in some instances, if stockholders do not vote to approve the merger agreement), and that our obligation to pay the termination fee might discourage other parties from proposing a business combination with, or an acquisition of, Innovive;

the risk that, while the merger is expected to be completed, there is no assurance that all conditions to the parties' obligations to complete the merger will be satisfied and, as a result, it is possible that the merger may not be completed even if approved by our stockholders;

additional advances under the loan and security agreement are at the discretion of CytRx and may affect our working capital; and

other risk factors described under the section entitled Risk Factors.

Our board of directors considered all of these factors as a whole and considered the factors in their totality to favor and support the decision to approve and authorize in all respects the merger agreement, the merger, and the other transactions contemplated under the merger agreement and to recommend that Innovive's stockholders approve the merger agreement.

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In view of the variety of factors considered in connection with its evaluation of the merger, our board of directors did not find it practicable to, and therefore did not, quantify, rank, or otherwise assign relative or specific weight or values to any of these factors. In addition, each individual director may have given different weights to different factors.

The foregoing discussion of our board of directors' considerations concerning the merger is forward looking in nature. This information should be read in light of the discussions under the heading "Cautionary Statement Concerning Forward-Looking Information."

Recommendation of the Board of Directors

After careful consideration, our board of directors, by unanimous vote:

has determined that the merger agreement is advisable, fair to, and in the best interests of Innovive and its stockholders;

has approved and authorized in all respects the merger agreement, the merger, and the other transactions contemplated by the merger agreement; and

recommends that our stockholders vote **FOR** the approval of the merger agreement.

CytRx's Reasons for the Merger

In reaching the decision to approve and authorize the merger, the merger agreement, and the ancillary agreements, the board of directors of CytRx consulted with senior management and CytRx's legal advisors, and considered a number of factors, including, but not limited to, those set forth below.

the acquisition of Innovive will expand CytRx's portfolio of product candidates to include Innovive's four current product candidates for the treatment of cancer and may facilitate obtaining additional funding by CytRx;

Innovive's product candidates, including tamibarotene, which is marketed in Japan for the treatment of relapsed or refractory acute promyelocytic leukemia, or APL, and is in a pivotal Phase II clinical trial in APL, are expected to accelerate by several years the time to CytRx's first potential new drug application, subject to the successful completion of Innovive's clinical trials;

the prior experience of some of CytRx's management team in the development of drugs for the treatment of cancer, and management's belief that CytRx can integrate Innovive's and CytRx's product candidates and drug development efforts and achieve economies of scale in general and administrative expenses and perhaps other costs;

the terms and conditions of the merger agreement and the loan and security agreement, including the fact that the merger consideration includes a relatively modest payment of initial merger consideration and that the larger earnout merger consideration is subject to the achievement of specified future net sales of Innovive's products;

apart from the approval by Innovive's stockholders, completion of the merger would not require any material consents or approvals;

the amount of the termination fee payable to CytRx and the circumstances under which it is payable to CytRx; and

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the support agreements of Innovive directors and officers and their affiliates who own beneficially an aggregate of approximately 22% of the shares of Innovive common stock entitled to vote at the special meeting to vote all shares that they control in favor of the merger agreement, as well as their willingness to grant CytRx proxies to vote such shares in favor of the approval of the merger agreement.

In view of the variety of factors considered in connection with its evaluation of the merger, CytRx's board of directors did not find it practicable to, and therefore did not, quantify, rank, or otherwise assign relative or specific weight or values to any of these factors. In addition, each individual director may have given different weights to different factors.

The foregoing discussion of CytRx's board of directors' considerations concerning the merger is forward-looking in nature. This information should be read in light of the discussions under the heading "Cautionary Statement Concerning Forward-Looking Information."

Effects of the Merger

If the merger agreement is approved by our stockholders and if the merger is completed, Merger Subsidiary will be merged with and into Innovive, with Innovive continuing as the surviving corporation and wholly owned subsidiary of CytRx. All of the shares of Innovive common stock outstanding immediately prior to the effective time of the merger (other than shares that are owned by Innovive, CytRx and Merger Subsidiary and shares that are owned by stockholders, if any, who properly exercise dissenters' rights under Delaware law) will be cancelled and converted into the right to receive the merger consideration.

After the completion of the merger, Innovive will be a wholly owned subsidiary of CytRx and its name will be changed to CytRx Oncology Corporation, our current stockholders will have no ownership interest in Innovive and shares of Innovive common stock will no longer be publicly traded.

Management and Operations After the Merger

Management of CytRx will manage the business and operations of Innovive after the merger. CytRx intends to undertake a comprehensive review of Innovive's development activities after the merger with a view to optimizing the clinical and development programs and eliminating any cost inefficiencies and redundancies of the combined company.

Interests of Certain Persons in the Merger

Neither Innovive nor any of our officers or directors has an ownership interest in CytRx or is otherwise affiliated with CytRx, and we had no dealings with CytRx or its officers or directors other than in connection with the merger agreement and related matters. However, in considering the recommendation of our board of directors with respect to the merger agreement, you should be aware that some of our directors and executive officers who participated in meetings of our board of directors have interests in the merger that are different from, or in addition to, the interests of our stockholders, generally. These interests, to the extent material, are described below. Our board of directors was aware of these interests and considered them, among other matters, in approving the merger agreement and the merger.

CytRx's officers and directors own CytRx common stock and have been granted stock options to purchase CytRx common stock, none of which will vest or be adjusted or otherwise changed as a result of the merger. Except for the interests inherent in their ownership of CytRx common stock and stock options, CytRx's officers and directors do not have any material interests in the merger.

Table of Contents**Severance Benefits**

We have entered into employment agreements with Steven Kelly and J. Gregory Jester, which provide that, if the employment of either officer is terminated by us without cause (as defined in the agreement), or either officer terminates his employment with us for good reason (as defined in the agreement), he will be entitled to receive a severance payment equal to six times his monthly salary and we will be obligated to continue his health insurance benefits for six months following his termination.

In February 2008, we instituted an employee retention program to ensure that we could retain the services of Mr. Jester and Dr. Poma. Pursuant to the program, we agreed to pay each officer severance equal to six months of his salary if he is terminated by us, CytRx or Merger Subsidiary without cause (as defined in the program) at any time after June 30, 2008. No such severance will be due the officer to the extent that he is eligible to receive severance payments in an equal or greater amount pursuant to his employment agreement or other agreement with us or CytRx.

Set forth below is an estimate of the pre-tax amount of the severance benefits that would be owed to each such officer under his employment agreement assuming that the officer is terminated on the day following the completion of the merger:

Name	Estimated Severance Payment	Estimated Value of Health Insurance Benefits
Steven Kelly	\$ 187,500	\$ 7,746
J. Gregory Jester	95,000	\$ -0-(1)
Eric Poma, Ph.D.	125,000	\$ -0-

- (1) Mr. Jester does not participate in our health insurance plan. Consequently, we are not required to provide him with continued benefits under the terms of his employment agreement.

The merger agreement provides that the directors of Merger Subsidiary will become the directors of Innovive upon the closing of the merger. Therefore, we do not anticipate that any of our directors will continue to serve as directors of Innovive or will serve as directors of CytRx after the completion of the merger.

Release of Personal Guarantee

Mr. Kelly, our President and Chief Executive Officer, currently serves as a guarantor of our rental payments under our lease for our executive offices. Pursuant to the merger agreement, CytRx has agreed to use its commercially reasonable efforts to remove Mr. Kelly as the guarantor, effective at the effective time of the merger. If the removal is not effective at that time, CytRx and Merger Subsidiary will enter into a written agreement satisfactory to Innovive and Mr. Kelly to indemnify Mr. Kelly under the guarantee and to obtain the removal of Mr. Kelly as guarantor as soon as possible after the effective time of the merger.

Stock, Stock Options and Warrants

As of the record date for the special meeting of stockholders, our directors and officers held in total 435,957 shares of our common stock. As of the record date for the special meeting of stockholders, our directors and officers held options and warrants to purchase a total of 512,747 shares of our common stock. See Security Ownership by Certain

Beneficial Owners and Management of Innovive for details on the ownership of our equity securities by our directors and officers.

All shares of common stock, stock options and warrants held by our directors and officers will be treated in the merger in the same manner as those held by our other stockholders.

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Indemnification and Insurance

In the merger agreement, CytRx and Merger Subsidiary have generally agreed to indemnify our current and former directors and officers and directors for acts or omissions in their capacity as directors or officers occurring on or before the effective time of the merger and to provide for liability insurance for a period of three years from and after the effective time of the merger, subject to certain conditions. The terms of the liability insurance policies must be no less favorable than the policies of Innovive, unless the cost of the policies would exceed the current policies' annual premium, in which case the coverage will be the greatest amount of coverage available for an amount not exceeding 125% of the current premium.

Stock Exchange Listing of CytRx Common Stock

It is a condition to the completion of the merger that the shares of CytRx common stock issuable to Innovive stockholders in payment of the initial merger consideration be approved for listing on The Nasdaq Capital Market. It is also a condition to the payment of any earnout merger consideration that CytRx may elect to pay in shares of CytRx common stock that such shares be listed on The Nasdaq Capital Market or other trading market.

Comparative Market Prices of Common Stock

CytRx common stock is listed on The Nasdaq Capital Market and our common stock is quoted on the OTCBB. On June 6, 2008, the last full trading day before the public announcement of the merger agreement, the closing price of CytRx common stock as reported on The Nasdaq Capital Market was \$0.99. On June 6, 2008, the last full trading day before the public announcement of the merger agreement, the closing price of shares of our common stock as reported on the OTCBB was \$0.15. If the merger is completed, there is no assurance as to what the market price of CytRx common stock will be at that or any other time.

Regulatory Requirements

The merger is not subject to any federal or state regulatory requirements.

OPINION OF INNOVIVE'S FINANCIAL ADVISOR

Innovive has retained Chartered Capital Advisers, Inc., or **Chartered**, to act as Innovive's financial advisor in connection with the merger. Chartered provides merger and acquisition, valuation, and corporate financial advisory services on behalf of corporate clients, investors, financial institutions, attorneys, accountants, and participants in employee benefit plans. Chartered is regularly engaged in the valuation of securities and other financial advisory work in connection with mergers and acquisitions, recapitalizations, private placements, financial restructuring, shareholder transactions, financial reporting, estate and gift taxes, litigation, and for other purposes. Innovive selected Chartered to act as Innovive's financial advisor in connection with the merger on the basis of Chartered's experience in transactions similar to the merger.

On June 6, 2008, at a meeting of the board of directors of Innovive held to evaluate the merger, Chartered delivered to the board of directors Chartered's written opinion dated June 6, 2008, to the effect that, as of the date of the opinion and based on and subject to various assumptions and limitations described in its opinion, the merger consideration to be received by holders of Innovive common stock was fair, from a financial point of view, to such holders.

The full text of Chartered's written opinion to the Board of Directors of Innovive, which describes, among other things, the assumptions made, procedures followed, factors considered and limitations on the review undertaken, is attached as Appendix C to this proxy statement/prospectus and is incorporated by reference in its entirety into this proxy statement/prospectus. The following summary of Chartered's opinion is qualified in its entirety by reference to the full text of the opinion. Chartered

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delivered its opinion to the board of directors of Innovive for the benefit and use of the board of directors in connection with and for purposes of its evaluation of the merger consideration from a financial point of view. Chartered's opinion does not address any other aspect of the merger and does not constitute a recommendation to any stockholder as to how to vote or act in connection with the proposed merger.

In connection with rendering its opinion, Chartered:

reviewed the merger agreement and various documents relating thereto;

conferred with Innovive's management, its legal advisors, and the management of CytRx;

reviewed various documents and other information prepared by or in connection with Innovive including, but not limited to, documents filed with the SEC, historical financial statements, Innovive's balance sheet as of May 31, 2008, financial projections, a summary of financing contacts, an investor presentation dated as of May 2008, technical documentation, and Innovive's website;

reviewed various documents and other information prepared by or in connection with CytRx including, but not limited to, documents filed with the SEC, historical financial statements, analyst reports, and CytRx's website;

analyzed the historical financial performance and financial condition of Innovive and CytRx;

analyzed the Innovive financial projections prepared by its management;

analyzed the historical stock prices of Innovive and CytRx;

considered Innovive's current capitalization, financial condition, and risks relating thereto;

evaluated the proposed consideration to Innovive equity holders reflected in the proposed merger, taking into consideration various valuation benchmarks including:

- o net book value;
- o current and historical market price of Innovive common stock;
- o premiums paid in mergers deemed to be relevant to Innovive;
- o discounted cash flow analysis;
- o capitalization multiples of guideline public companies; and
- o capitalization multiples paid in acquisitions deemed to be relevant to Innovive;

considered the historical experience of Innovive's management and the investment bankers that it retained to pursue capital infusions and other potential transactions;

considered the potential perception of Innovive and its investment prospects from the vantage point of investors capable of committing the amount of capital required by Innovive, and the amount of dilution that may result from a potential capital infusion;

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considered the current financing environment for financing development-stage companies similar to Innovive;

considered the process employed by Innovive’s management to negotiate the proposed merger;

considered the risks of rejecting the proposed merger in order to seek an enhanced transaction with CytRx or an improved transaction with an alternative investor or acquirer; and

considered such other information, financial studies, and analyses as it deemed relevant, and performed such analyses, studies, and investigations as it deemed appropriate.

In arriving at its opinion, Chartered assumed and relied upon, without independent verification, the accuracy and completeness of the information reviewed by it that was obtained from Innovive’s management, CytRx, and from public sources that are routinely used in its profession. Chartered also assumed that the representations of Innovive management and its advisors were made in good faith, and that they reflect the best currently available management judgments as to the matters covered and that the distributions of initial merger consideration and earnout merger consideration would be made on a timely basis in accordance with the provisions of the merger agreement.

Chartered’s opinion was necessarily based upon economic, market, and other conditions as in effect on, and the information made available to Chartered as of, the date of its opinion. Chartered disclaims any undertaking or obligation to advise any person of any change in any fact or matter affecting its opinion which may come up or be brought to its attention after the date of its opinion. In the event that there is any change of fact or matter affecting Chartered’s opinion after its date and prior to the consummation of the proposed merger, Chartered reserves the right to change, modify, or withdraw its opinion.

The following represents a brief summary of the material financial analyses presented by Chartered to the board of directors of Innovive in connection with its opinion. The financial analyses summarized below include information presented in tabular format. In order to fully understand the financial analyses performed by Chartered, the tables must be read together with the text of each summary. The tables alone do not constitute a complete description of the financial analyses performed by Chartered. Considering the data set forth in the tables below without considering the full narrative description of the financial analyses, including the methodologies and assumptions underlying the analyses, could create a misleading or incomplete view of the financial analyses performed by Chartered.

Considerations Underlying Chartered Fairness Opinion

Neither Innovive nor CytRx has historical revenues to which customary analyses can be applied. In addition, due to the absence of historical revenues for either Innovive or CytRx, no projections of operations could be or were developed for either Innovive or CytRx because any such projections would be speculative in nature. As a result, many of the analyses typically performed to value companies that are at more advanced stages of development could be credibly performed in connection with the proposed merger. Consequently, Chartered relied heavily on qualitative factors in arriving at its opinion. The following are the principal considerations relied upon by Chartered in its analysis:

Consideration	Comments
Steps leading to merger	Innovive’s management hired four leading investment banks over an 18-month period to explore transaction alternatives; Contacts were made with more than 65 potential investors; and The proposed merger is the culmination of an extensive undertaking by well-recognized firms.

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Consideration	Comments
Urgency of current situation	Innovive is insolvent and has been insolvent for several months; Trade debt is significantly in arrears, research and development, or R&D, activities have been halted, and personnel have been laid off pending additional funding; and Absent necessary financing, there is risk that Innovive may be compelled to relinquish some or all of the licenses upon which the success of Innovive depends, and all remaining value could be lost.
Alternative potential transactions	None.
Market capitalization of Innovive and CytRx common stock	Innovive \$1.46 million (as of 5/30/08); and CytRx \$79.9 million (as of 5/30/08).
Potential value of merger consideration to Innovive stockholders	Initial merger consideration CytRx common stock valued at \$3.0 million; and Earnout merger consideration (if earned) CytRx common stock valued at \$2.0 million to \$18.25 million.
Relative liquidity of Innovive and CytRx stock	Innovive common stock is relatively illiquid, trading a median of 3,500 shares/day; and CytRx common stock is more liquid than that of Innovive, trading in excess of 500,000 shares/day.
Institutional ownership of stock	Innovive minimal ; and CytRx approximately 30%.
Analysts covering stock	Innovive none; and CytRx five analysts.
Impact of proposed merger on Innovive stockholder risk	Risk would be reduced because: (1) CytRx is better capitalized than Innovive; (2) CytRx has historically been more successful than Innovive in raising capital; and (3) CytRx has additional products in the pipeline that provide diversification benefit.
Impact of proposed merger on potential Innovive stockholder return	Potential returns are enhanced by an increased ability to fund R&D; Dilution from proposed merger may not be significantly different than the dilution that would occur if Innovive remained independent and obtained funding from investors (although it has been unsuccessful in doing so); and Innovive stockholders are also able to participate in the potential return from CytRx R&D.
Implied merger premium	At least 105% (based on 5/30/08 Innovive stock price), but potentially in excess of 1,000%, depending upon the amount of earnout merger consideration paid; and Implied merger premium is high in comparison to premiums generally paid in M&A transactions, including premiums paid since the beginning of 2007 in the acquisition of biotech stocks (median 65.17%) and companies with sales below \$10 million (median 34.23%).
Innovive stockholders share of post-merger	Innovive stock represented 1.80% of the combined market capitalization of Innovive and CytRx as of 5/30/08; and

combined company	Initial merger consideration (without regard to earnout merger consideration) would give Innovive stockholders 3.61% of the post-merger capitalization of the combined companies.
Innovive pro forma value	An analysis of Innovive stockholders' share of the pro forma future value of Innovive if it were to remain an independent company and obtain a highly dilutive financing is less than what may be realized from their share of the pro forma future value of the combined Innovive and CytRx after the merger; and The pro forma analysis was based, in part, upon discounted cash flow analysis, and price/revenue multiples of publicly traded biotech companies, as well as price/revenue multiples paid in acquisitions of biotech companies.
Innovive net book value	Preliminary unaudited internal financial statements indicated Innovive had a stockholders deficit of \$3.678 million as of 5/30/08.

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Consideration	Comments
Risk of rejecting the proposed merger	The only available transaction may be lost if CytRx chose to withdraw; Innovive common stock may become worthless; and Innovive may be liable to CytRx for a \$1.5 million termination fee (nearly equal to the aggregate market capitalization of Innovive common stock as of 5/30/08), as well as for repayment of advances made by CytRx.

Miscellaneous

As noted above, the discussion set forth above is a summary of the material financial analyses presented by Chartered to the board of directors of Innovive in connection with its opinion and is not a comprehensive description of all analyses undertaken by Chartered in connection with its opinion. The preparation of a financial opinion is a complex analytical process involving various determinations as to the most appropriate and relevant methods of financial analysis and the application of those methods to the particular circumstances and, therefore, a financial opinion is not readily susceptible to partial analysis or summary description. Chartered believes that its analyses summarized above must be considered as a whole. Chartered further believes that selecting portions of its analyses and the factors considered or focusing on information presented in tabular format without considering all analyses and factors or the narrative description of the analyses, could create a misleading or incomplete view of the processes underlying Chartered's analyses and opinion. The fact that any specific analysis has been referred to in the summary above is not meant to indicate that such analysis was given greater weight than any other analysis referred to in the summary.

In performing its analyses, Chartered considered industry performance, general business and economic conditions and other matters, many of which are beyond the control of Innovive and CytRx. The estimates of the future performance of Innovive and CytRx in or underlying Chartered's analyses are not necessarily indicative of actual values or actual future results, which may be significantly more or less favorable than those estimates or those suggested by Chartered's analyses. These analyses were prepared solely as part of Chartered's analysis of the fairness, from a financial point of view, of the merger consideration and were provided to the board of directors of Innovive in connection with the delivery of Chartered's opinion. The analyses do not purport to be appraisals or to reflect the prices at which a company might actually be sold or the prices at which any securities have traded or may trade at any time in the future. Accordingly, the estimates used in, and the ranges of valuations resulting from, any particular analysis described above are inherently subject to substantial uncertainty and should not be taken to be Chartered's view of the actual values of Innovive or CytRx.

The type and amount of consideration payable in the merger was determined through negotiations between Innovive and CytRx, rather than by any financial advisor, and was approved by the board of directors of Innovive. The decision to enter into the merger agreement was solely that of the board of directors of Innovive. As described above, Chartered's opinion and analyses were only one of many factors considered by the board of directors of Innovive in its evaluation of the proposed merger and should not be viewed as determinative of the views of the board of directors of Innovive or management with respect to the merger or the merger consideration.

Innovive paid Chartered \$25,000 for its services in rendering its opinion and also will reimburse Chartered for reasonable out-of-pocket expenses incurred in connection with Chartered's engagement. Innovive has agreed to indemnify and hold harmless Chartered and its shareholders and employees against any costs incurred by Chartered in connection with any litigation to which Chartered or its shareholders and employees may become subject as a consequence of its services to Innovive in the proposed merger. In addition, Innovive has agreed that the maximum liability of Chartered for any and all losses, claims, damages, or liabilities to which Chartered may become subject in connection with the services rendered by it to Innovive will be limited to \$25,000, other than in matters involving Chartered's gross negligence, willful misconduct, fraud or deliberate malfeasance.

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Chartered or its affiliates have not provided financial advisory or any other services to Innovive in the past. In the ordinary course of business, Chartered and its affiliates have never owned any securities of Innovive or CytRx for their own accounts.

Table of Contents**MATERIAL UNITED STATES FEDERAL INCOME TAX CONSEQUENCES**

The following is a summary of certain material U.S. federal income tax consequences of the merger that are relevant to CytRx and holders of Innovive common stock who will receive the merger consideration in the merger.

CytRx will recognize no gain or loss in connection with the merger. However, CytRx will be entitled to deductions for such portion of each payment of earnout merger consideration, if any, as and when made, that represents imputed interest (see U.S. Holders Earnout Merger Consideration, below).

The following discussion is for general information only and does not purport to consider all aspects of U.S. federal income taxation that might be relevant to holders of Innovive common stock. The discussion is based on current provisions of the Internal Revenue Code of 1986, as amended, or the **Code**, existing, proposed, and temporary regulations promulgated under the Code, and rulings, administrative pronouncements, and judicial decisions as in effect on the date of this proxy statement/prospectus, changes to which could materially affect the tax consequences described below and could be made on a retroactive basis. The discussion applies only to holders of Innovive common stock in whose hands the shares are capital assets within the meaning of Section 1221 of the Code, and may not apply to holders who acquired their shares pursuant to the exercise of employee stock options or other compensation arrangements with Innovive or who hold their shares as part of a hedge, straddle, conversion, or other risk reduction transaction or who are subject to special tax treatment under the Code (such as dealers in securities or foreign currency, insurance companies, other financial institutions, regulated investment companies, tax-exempt entities, S corporations, partnerships, and taxpayers subject to the alternative minimum tax). In addition, except as specifically discussed below, this discussion does not consider the effect of any state, local, or foreign tax laws.

The following discussion is not binding on the Internal Revenue Service, or the **IRS**, or the courts and, therefore, could be challenged. Neither we nor CytRx will seek any ruling from the IRS with respect to the merger.

For purposes of this discussion, the term **U.S. holder** means a holder of Innovive common stock that is, for U.S. federal income tax purposes: a citizen or individual resident of the United States; a corporation, or other entity treated as a corporation for U.S. federal income tax purposes, created in or under the laws of the United States or of any state (including the District of Columbia); an estate, the income of which is subject to U.S. federal income taxation regardless of its source; or a trust, if a court within the United States is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have the authority to control all substantial decisions of the trust, or a trust that has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person. For purposes of this discussion, the term **non-U.S. holder** means a holder of Innovive common stock (other than a partnership) that is not a U.S. holder.

U.S. Holders

It is uncertain under current authorities whether the merger will qualify as a tax-free reorganization under Section 368 of the Code or as a taxable exchange. Innovive and CytRx have not yet determined whether they will report the merger as a taxable event or as a reorganization under Code Section 368, and that determination may not be able to be made until after the closing of the merger. Because of the complexity of the tax issues arising from the structure of the earnout merger consideration and the uncertainty under current authorities of the tax treatment of the merger, you are strongly advised to consult your own tax advisor regarding the tax consequences of the merger to you.

Table of Contents***Merger as Taxable Exchange***

If the merger fails to qualify as a reorganization under Code Section 368, it will constitute a taxable exchange, and the tax consequences set forth below would generally apply.

Initial Merger Consideration. The receipt of the initial merger consideration will be a taxable transaction for U.S. federal income tax purposes. In general, a U.S. holder will recognize gain or loss for federal income tax purposes measured by the difference, if any, between the value of the shares of CytRx common stock (plus any cash received in lieu of a fractional share) received as initial merger consideration and the portion of the U.S. holder's adjusted tax basis in the shares of Innovive common stock surrendered pursuant to the merger (which basis may have to be allocated, in part, to the earnout merger consideration). Gain or loss will be determined separately for each block of Innovive shares (*i.e.*, shares acquired at the same price per share in a single transaction). Such gain or loss will be capital gain or loss and will be long-term capital gain or loss if the U.S. holder's holding period for such shares is more than one year at the time of consummation of the merger. The maximum federal income tax rate on net long-term capital gain recognized by individuals is 15% under current law. Deduction of capital losses may be subject to certain limitations.

Earnout Merger Consideration. In connection with the payment of earnout merger consideration, if any, a U.S. holder generally will recognize capital gain or loss measured by the difference, if any, between (i) the value of the shares of CytRx common stock (plus any cash received in lieu of a fractional share), or cash, or combination of CytRx shares and cash, received as earnout merger consideration, and (ii) any portion of the U.S. holder's adjusted tax basis in the shares of Innovive common stock surrendered pursuant to the merger allocable to the earnout merger consideration. A portion of each earnout merger consideration payment, however, will be characterized as interest under the Code's imputed interest rules, and treated as ordinary interest income to the U.S. holder, based on the applicable federal rate in effect on the date of the merger for the term from the date of the merger to the payment date.

Installment Method. Because the common shares of Innovive are quoted and tradable on the Over-the-Counter Bulletin Board, the installment method of reporting under Code Section 453 will generally not be available for Innovive stockholders, other than possibly for certain officers, directors or significant stockholders whose ability to sell shares in the public markets is limited under SEC rules and regulations (as discussed below). Accordingly, for ordinary Innovive stockholders that are not eligible for the installment method, the earnout merger consideration generally would be taxable in the year of the merger based on the fair market value, as of the date of the merger, of the rights to any future earnout merger consideration. For such stockholders ineligible for the installment method, however, an exception might be available to the general rule of taxation in the year of merger either under the open-transaction doctrine or, for Innovive stockholders who are cash-method taxpayers, based on the cash-method-taxpayer doctrine. If applicable, the judicially created open-transaction doctrine or the cash-method-taxpayer doctrine might permit an Innovive stockholder to recover all of the holder's basis in the exchanged Innovive stock before recognizing capital gain from the merger. The IRS views the open-transaction doctrine, though, as being rarely available and applying only in those rare and extraordinary cases where a contingent payment obligation is considered to have no ascertainable value. Innovive stockholders should consult their own tax advisors regarding the availability of either the open-transaction doctrine or the cash-method-taxpayer doctrine in connection with the merger, and how it might apply to them if available.

In the case of Innovive officers, directors or significant stockholders whose ability to sell all of their Innovive shares in the public markets is limited under SEC Rule 144 or similar restrictions, IRS private letter rulings have held that the installment method might be available to such a stockholder, in light of the securities laws restrictions on the salability of the stockholder's shares. Such Innovive stockholders should consult their own tax advisors regarding the availability of the installment method for some or all of their Innovive shares and, if the installment method is otherwise applicable, the effects of the installment method on them and whether the stockholder should adopt or elect out of the installment method with respect to any merger consideration.

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Tax-Free Reorganization

If the merger instead is held to constitute a reorganization within the meaning of Section 368(a) of the Code, then, subject to the limitations and qualifications described herein, the following tax consequences would generally apply to stockholders who exchange Innovive common stock for shares of CytRx common stock and any earnout merger consideration:

no gain or loss will be recognized by the Innovive stockholders upon their receipt of the initial merger consideration in the form of CytRx common stock;

taxable gain or, in certain cases, loss will be recognized by Innovive stockholders with respect to any cash they may receive as consideration in the merger, including in lieu of fractional shares;

taxable income or gain will be recognized upon the receipt of any earnout merger consideration that is paid in the form of cash, and a portion of any earnout merger consideration will be recharacterized under the imputed-interest provisions of the Code as being interest for federal income tax purposes, regardless of whether the underlying earnout merger consideration is received in the form of cash or CytRx shares, as discussed more fully above under Merger as Taxable Exchange Earnout Merger Consideration ;

the aggregate tax basis of the CytRx common stock received in the merger will be the same as the aggregate tax basis of the holder's Innovive common stock surrendered in exchange therefor, reduced by (i) an amount of basis allocable to any fractional share interests for which cash was received and (ii) the portion of such basis, if any, allocable to any portion of the earnout merger consideration not received in the form of shares of CytRx common stock; and

the holding period of the CytRx common stock received in the merger will include the period during which the holder's Innovive common stock surrendered in exchange therefor was held, provided that the holder's Innovive common stock is held as a capital asset at the time of the merger.

Exercise of Appraisal Rights

The discussion above does not apply to stockholders of Innovive who exercise appraisal rights under Delaware law. An Innovive stockholder who exercises appraisal rights with respect to the merger and receives cash for shares of Innovive stock will generally recognize capital gain (or loss) measured by the difference between the amount of cash received and the stockholder's basis in those shares, provided that (i) the Innovive shares are capital assets in the hands of such stockholder and (ii) the payment is treated as a redemption pursuant to Section 302 of the Code, and not otherwise equivalent to a dividend with respect to the stockholder. A sale of all Innovive shares held by a stockholder, based on an exercise of appraisal rights or otherwise, will not be treated as a dividend if the stockholder exercising appraisal rights owns no shares of Innovive or CytRx immediately after the merger, after giving effect to the constructive ownership rules pursuant to the Code. The capital gain or loss will be long-term capital gain or loss if the holder's holding period for the Innovive shares surrendered is more than one year. If a stockholder exercising appraisal rights or exchanging Innovive shares solely for cash will own shares in CytRx immediately following the merger, the stockholder should consult his, her or its own tax advisers as to the tax consequences to the stockholder of the Merger.

Non-U.S. Holders

A non-U.S. holder generally will not be subject to U.S. federal income tax with respect to any taxable gain on merger consideration received pursuant to the merger, unless one of the following applies:

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the taxable gain is effectively connected with a non-U.S. holder's conduct of a trade or business within the United States and, if a tax treaty applies, the gain is attributable to a non-U.S. holder's U.S. permanent establishment. In such case, the non-U.S. holder will, unless an applicable tax treaty provides otherwise, generally be taxed on its net gain derived from the merger at regular graduated U.S. federal income tax rates, and in the case of a foreign corporation, may also be subject to the branch profits tax; or

a non-U.S. holder who is an individual and holds Innovive stock as a capital asset, is present in the United States for 183 or more days in the taxable year that the merger occurs and certain other conditions are met. In such a case, the non-U.S. holder will be subject to a flat 30% tax on the taxable gain derived from the merger, which may be offset by certain U.S. capital losses.

Backup Withholding

Certain non-corporate holders of Innovive common stock may be subject to backup withholding at a 28% rate on any cash payments received in connection with the merger or upon the exercise of appraisal rights. Backup withholding will not apply, however, to a holder who (1) furnishes a correct taxpayer identification number and certifies that he, she, or it is not subject to backup withholding on the substitute IRS Form W-9 or successor form, (2) provides a certification of foreign status on an IRS W-8 series Form or successor form, or (3) is otherwise exempt from backup withholding.

The discussion set forth above is included for general information only. Each Innovive stockholder should consult his, her or its own tax advisor with respect to the specific tax consequences of the merger to him, her or it, including the application and effect of state, local, and foreign tax laws.

THE SPECIAL MEETING OF STOCKHOLDERS

Time, Place, and Purpose of the Special Meeting

This proxy statement/prospectus is being furnished to our stockholders as part of the solicitation of proxies by our board of directors for use at a special meeting to be held at 10:00 a.m., local time, on September 19, 2008, at our offices located at 555 Madison Avenue, 25th Floor, New York, New York, or at any postponement or adjournment of the meeting. The purpose of the special meeting is to consider and vote on the proposal to approve the merger agreement (and to approve the adjournment of the special meeting, if necessary or appropriate to solicit additional proxies). If the stockholders fail to approve the merger agreement, the merger will not occur. A copy of the merger agreement is attached to this proxy statement/prospectus as Appendix A.

Who Can Vote at the Special Meeting

You may vote at the special meeting all of the shares of Innovive common stock you owned of record as of the close of business on July 31, 2008. If you own shares that are registered in someone else's name (for example, a broker), you need to direct that person to vote those shares on your behalf or obtain an authorization from them to vote the shares yourself at the special meeting. As of the close of business on July 31, 2008, there were 14,610,003 shares of Innovive common stock outstanding held by 171 holders of record. We believe that a number of our stockholders hold their shares in street name and, as a result, that the number of beneficial owners of Innovive common stock is greater than the number of record holders.

Vote Required for Approval of the Merger Agreement

Approval of the merger agreement requires stockholders holding a majority of the outstanding shares of Innovive common stock at the close of business on the record date to vote for the approval of the merger

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agreement, with each share having a single vote for this purpose. Failure to vote will have the same effect as a vote against the approval of the merger agreement.

Steven Kelly, Neil Herskowitz, J. Jay Lobell and Eric Poma, M.D., each of whom is a director or officer of Innovive, and their affiliates, Lindsay A. Rosenwald, M.D., and Lester Lipshutz, as investment manager or trustee of trusts established for the benefit of Dr. Rosenwald and his family, along with Angelo De Caro, who recently resigned as a director, have agreed pursuant to support agreements that they have entered into with CytRx and Merger Subsidiary to vote all Innovive shares that they control in favor of the merger agreement. These directors and officers and their affiliates own beneficially an aggregate of approximately 22% of the shares of common stock entitled to vote at the special meeting. To facilitate the support agreements, these beneficial owners also granted CytRx proxies to vote their shares with respect to the merger and the merger agreement. The full text of the form of support agreements is attached to this proxy statement/prospectus as Appendix B.

Brokers who hold shares in street name for customers are precluded from exercising their voting discretion with respect to the approval of matters such as the approval of the merger agreement and, as a result, absent specific instructions from the beneficial owner of such shares, brokers are not empowered to vote those shares, referred to generally as broker non-votes. Abstentions and broker non-votes will be treated as shares that are present and entitled to vote at the special meeting for purposes of determining whether a quorum exists and will have the same effect as votes against approval of the merger agreement.

The holders of a majority of the outstanding shares of Innovive common stock entitled to be cast as of the record date, represented in person or by proxy, will constitute a quorum for purposes of the special meeting. A quorum is necessary to hold the special meeting. Once a share of Innovive common stock is represented at the special meeting, it will be counted for the purpose of determining a quorum and any adjournment of the special meeting, unless the holder is present solely to object to the special meeting. However, if a new record date is set for an adjourned meeting, then a new quorum will have to be established.

Voting By Proxy

This proxy statement/prospectus is being sent to you on behalf of our board of directors for the purpose of requesting that you allow your shares of Innovive common stock to be represented at the special meeting by the persons named in the enclosed proxy card. All shares of Innovive common stock represented at the special meeting by proxies voted by the Internet or by properly executed proxy cards will be voted in accordance with the instructions indicated on that proxy. If you sign and return a proxy card without giving voting instructions, your shares will be voted as recommended by our board of directors.

The persons named in the proxy card will use their own judgment to determine how to vote your shares regarding any matters not described in this proxy statement/prospectus that are properly presented at the special meeting. Innovive does not know of any matter to be presented at the special meeting other than the proposal to approve the merger agreement (and the proposal described below to approve the adjournment of the special meeting, if necessary or appropriate, to solicit additional proxies).

You may revoke your proxy at any time before the vote is taken at the special meeting. To revoke your proxy, you must (1) send a signed written notice of revocation to us at Innovive Pharmaceuticals, Inc., 555 Madison Avenue, 25th Floor, New York, New York 10022, Attention: Corporate Secretary, (2) submit a proxy by mail or by the Internet dated after the date of the earlier proxy you wish to change, or (3) attend the special meeting and vote your shares in person. Merely attending the special meeting without voting will not be sufficient to revoke your earlier proxy.

If your shares of Innovive common stock are held in street name, you will receive instructions from your broker, bank, or other nominee that you must follow in order to have your shares voted. If you do not

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instruct your broker to vote your shares, it has the same effect as a vote against the approval of the merger agreement.

Innovive will pay the cost of this proxy solicitation. In addition to soliciting proxies by mail, directors, officers, and employees of Innovive may solicit proxies by telephone, by other electronic means, or in person. None of these persons will receive additional or special compensation for soliciting proxies. Innovive will also, upon request, reimburse brokers, banks, and other nominees for their expenses in sending proxy materials to their customers who are beneficial owners and obtaining their voting instructions.

Adjournments and Postponements

Although it is not currently expected, the special meeting may be adjourned or postponed for the purpose of soliciting additional proxies. Any adjournment may be made without notice (if the adjournment is not for more than 30 days), by an announcement made at the special meeting of the time, date, and place of the adjourned meeting. If no quorum exists, the chairman of the meeting will have the power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present or represented. If a quorum exists, holders of a majority of the shares of Innovive common stock present in person or represented by proxy at the special meeting and entitled to vote at the meeting may adjourn the special meeting. Any signed proxies received by Innovive in which no voting instructions are provided on such matter will be voted in favor of an adjournment in these circumstances. Any adjournment or postponement of the special meeting for the purpose of soliciting additional proxies will allow Innovive's stockholders who have already sent in their proxies to revoke them at any time prior to their use at the special meeting as adjourned or postponed.

After careful consideration, our board of directors, by a unanimous vote of all of the directors, recommends a vote FOR the approval of the adjournment of the special meeting.

Stockholder Representative

If the merger agreement is approved at the special meeting, you will be deemed to have appointed Steven Kelly, our President and Chief Executive Officer, as your agent and attorney-in-fact for purposes of the merger agreement if the merger is completed.

THE MERGER AGREEMENT

This section describes the material terms of the merger agreement. The description in this section and elsewhere in this proxy statement/prospectus is qualified in its entirety by reference to the merger agreement, itself, a copy of which is attached to this proxy statement/prospectus as Appendix A. This summary does not purport to be complete and may not contain all of the information about the merger agreement that is important to you. We encourage you to read carefully the merger agreement in its entirety.

The merger agreement has been included to provide you with information regarding its terms and is not intended to provide any other factual information about Innovive, CytRx or Merger Subsidiary. Furthermore, the merger agreement contains representations and warranties made by and to Innovive, CytRx and Merger Subsidiary for the purposes of that contract and which are subject to qualifications and limitations agreed to by the parties in connection with negotiating the terms of that contract.

Effective Time of the Merger

The effective time of the merger will occur at the time that Innovive and Merger Subsidiary file a certificate of merger with the Secretary of State of the State of Delaware on the closing date of the merger or on a later date agreed to by CytRx and Innovive. The closing of the transactions contemplated by the merger agreement will occur on the second business day after all of the conditions to the merger set forth in the merger agreement have been satisfied or waived, or on such other date as CytRx and Innovive may agree.

Table of Contents**Structure of the Merger**

At the effective time of the merger, Merger Subsidiary will merge with and into Innovive in accordance with the Delaware General Corporation Law. The separate existence of Merger Subsidiary will cease, and Innovive will survive the merger and continue to exist after the merger as a wholly owned subsidiary of CytRx. All of Innovive's and Merger Subsidiary's rights and properties and all of their debts and liabilities will become those of the surviving corporation.

Following completion of the merger, Innovive common stock will be deregistered under the Securities Exchange Act of 1934 and no longer quoted on the OTCBB or publicly traded.

Merger Consideration

In the merger, CytRx will pay initial merger consideration of \$3,000,000 in the form of shares of CytRx common stock valued at \$0.94 per share, which equals the average daily volume-weighted closing price of CytRx common stock as reported on The Nasdaq Capital Market over the 10 trading days prior to the signing of the merger agreement. CytRx also will pay future earnout merger consideration of up to \$18,253,462, subject to the achievement of specified net sales under Innovive's existing license agreements, as follows:

Net Sales	Earnout Merger Consideration
\$ 2,000,000	\$ 2,000,000
\$ 15,000,000	\$ 5,000,000
\$ 30,000,000	\$ 5,000,000
\$ 40,000,000	\$ 6,253,462

Subject to specified conditions, any earnout merger consideration will be payable in shares of CytRx common stock or, at CytRx's election, in cash, or by a combination of shares of CytRx common stock and cash. CytRx common stock will be valued for purposes of any earnout merger consideration based upon the average of the daily market price during the 10-trading day period ending on the second trading day prior to payment of the earnout merger consideration. Your right to receive any earnout merger consideration will not be transferable, except by operation of law.

The earnout merger consideration is subject to offset by CytRx as described under Indemnification and Offset below in this section.

Fractional Shares

No fractional shares of CytRx common stock will be issued in the merger. In lieu of any fractional share, you will receive cash equal to the value in the merger of such fractional share, less any applicable withholding.

Treatment of Stock, Options and Warrants in the Merger***Innovive Common Stock***

At the effective time of the merger, all outstanding shares of Innovive common stock (other than shares that are owned by Innovive as treasury stock, or by CytRx and Merger Subsidiary, and other than shares that are owned by Innovive stockholders, if any, who properly exercise dissenters' rights under Delaware law) will be cancelled and converted into the right to receive the merger consideration. Any of our shares that are owned by Innovive, CytRx and Merger Subsidiary will be cancelled without the payment of any consideration. After the effective time of the merger, each outstanding stock certificate or book-entry share representing

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shares of Innovive common stock converted in the merger will represent only the right to receive the merger consideration with respect to each share of Innovive common stock.

Conversion of Merger Subsidiary Capital Stock

At the effective time of the merger, all of the outstanding shares of the capital stock of Merger Subsidiary will be converted into one share of the common stock of Innovive, and such converted share will constitute the only outstanding capital stock of Innovive as of the effective time of the merger.

Innovive Stock Options

Each Innovive stock option outstanding as of the effective time of the merger, whether or not then vested or exercisable, will, by its terms, automatically be cancelled, with any consideration due to the holders thereof being paid at such time. After the merger, such stock options will no longer be outstanding and the holders of the options will no longer have any rights to purchase Innovive common stock. As of the record date for the special meeting, we had outstanding options to purchase an aggregate of 1,213,601 shares of our common stock at a weighted-average exercise price of \$3.32 per share. This does not include the option for 2,000,000 shares that we granted to CytRx pursuant to the loan and security agreement as described under *Ancillary Agreements* *Loan and Security Agreement*.

All of our stock options currently are *underwater*, so we expect that our option holders will receive no payments or other consideration in connection with the merger. After the merger, such stock options will no longer be outstanding and the holders of the options will no longer have any rights to purchase Innovive stock or other securities.

Innovive Warrants

Each Innovive warrant outstanding immediately prior to the effective time of the merger that, by its terms, does not expire upon the effective time will remain outstanding in accordance with the terms thereof and the holder thereof will thereafter have the right to purchase and receive (in lieu of the shares of Innovive common stock) the merger consideration payable with respect to the number of shares of Innovive common stock purchasable under the warrant immediately prior to the effective time of the merger. To the extent Innovive warrants outstanding at the effective time of the merger are subsequently cancelled, or terminate, without being exercised in full, the merger consideration otherwise payable with respect to such cancelled or terminated warrants will become the property of CytRx.

If required by the terms of the warrants, CytRx will cause to be issued promptly after the completion of the merger replacement warrants for the Innovive warrants that, by their terms, will remain outstanding after the merger.

Exchange and Payment Procedures

Prior to the effective time of the merger, CytRx will deposit with a disbursing agent selected by CytRx and reasonably acceptable to us shares of CytRx common stock (and cash in lieu of any fractional shares) sufficient to pay the initial merger consideration.

Promptly after the effective time of the merger, the disbursing agent will mail to each stockholder who is entitled to receive the merger consideration a letter of transmittal and instructions for use in effecting the surrender of the stockholder's stock certificates or book-entry shares in exchange for payment of the merger consideration. Upon surrender to the disbursing agent of the stockholder's stock certificates or book-entry shares, together with the letter of transmittal duly executed and such other documents as may be reasonably required by the disbursing agent, the stockholder will be paid promptly in exchange therefor the merger consideration. No interest will be paid or accrued on the merger consideration.

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A stockholder should not return a stock certificate with the enclosed proxy card, and a stockholder should not send a stock certificate to the disbursing agent without a signed letter of transmittal.

The merger consideration may be paid to a person other than the person in whose name the corresponding certificate is registered if the certificate is properly endorsed or is otherwise in the proper form for transfer. In addition, the person who surrenders the certificate must either pay any transfer or other applicable taxes or establish to the satisfaction of the surviving corporation that such taxes have been paid or are not applicable.

After the effective time of the merger, there will be no transfers on our stock transfer books of shares of our common stock that were outstanding prior to the effective time of the merger. If, after the effective time of the merger, certificates are presented to us for transfer, they will be canceled and exchanged for the merger consideration.

If a stockholder has lost a stock certificate, or if it has been stolen or destroyed, then before the stockholder will be entitled to receive any portion of the merger consideration, he or she will need to make an affidavit of the fact of such loss, theft, or destruction and, if required by the surviving corporation, post a bond in a reasonable amount sufficient to protect the surviving corporation and CytRx against any claim that may be made against either of them with respect to such certificate.

No fractional shares of CytRx common stock will be issued in the merger. In lieu of any fractional share, you will receive cash equal to the value in the merger of such fractional share, less any applicable withholding.

Any portion of the merger consideration deposited with the disbursing agent that remains undistributed to former holders of our common stock more than six months after the effective time of the merger will be delivered, upon demand, to CytRx. Former holders of our common stock who have not complied with the above-described exchange and payment procedures will thereafter be entitled to look only to CytRx for payment of the merger consideration. The disbursing agent, CytRx, and Innovive will not be liable to any former holders of our common stock for any cash that is delivered to a public official pursuant to any applicable abandoned property, escheat, or similar laws.

The disbursing agent is entitled to deduct, withhold, and pay to the appropriate taxing authorities any applicable taxes from the merger consideration. Any sum that is withheld and paid to a taxing authority by the paying agent will be deemed to have been paid to the person with regard to whom it is withheld.

Representations and Warranties

The merger agreement contains customary representations and warranties of the parties to the merger agreement, which are made to and solely for the benefit of each other. The assertions embodied in the representations and warranties are qualified and modified by information contained in a confidential disclosure schedule that the parties exchanged in connection with the signing of the merger agreement. Accordingly, you should not rely on the representations and warranties as characterizations of the actual state of facts about us or CytRx because (1) they were made only as of the date of the merger agreement or a prior specified date, (2) in some cases they are subject to qualifications with respect to materiality and knowledge, and (3) they are modified in important part by the underlying disclosure schedule. The disclosure schedule contains information that has been included in our prior public disclosures, as well as non-public information. Moreover, information concerning the subject matter of the representations and warranties may have changed since the date of the merger agreement, and such subsequent information may or may not be fully reflected in our public disclosures.

Our representations and warranties in the merger agreement relate to, among other things:

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our due incorporation, valid existence, good standing, and qualification to do business;

our certificate of incorporation and bylaws;

our capitalization, including the number of shares of Innovive common stock, stock options and warrants outstanding;

our corporate power and authority to enter into the merger agreement and to consummate the transactions contemplated by the merger agreement;

the approval and recommendation by our board of directors of the merger agreement and the merger and the other transactions contemplated by the merger agreement;

the absence of certain specified violations of, or conflicts with, our governing documents, applicable law, and certain agreements as a result of entering into the merger agreement and consummating the merger;

the required consents and approvals of governmental entities in connection with the execution, delivery, and performance of the merger agreement, the merger, and the other transactions contemplated by the merger agreement;

our SEC forms, documents, registration statements, and reports filed since January 1, 2007, including the financial statements contained therein;

our compliance with the Sarbanes-Oxley Act of 2002, including our internal control over financial reporting;

the absence of certain undisclosed liabilities and an estimate of our net liabilities (as defined) as of June 6, 2008;

the absence of a material adverse effect and certain other changes or events related to us since December 31, 2007;

the absence of undisclosed legal proceedings and governmental orders against us;

the accuracy of the information supplied by us for inclusion in this proxy statement/prospectus;

compliance with applicable laws and permits;

material contracts and compliance with contracts;

taxes;

employment matters affecting us, including matters relating to our employee benefit plans;

leasehold interests, tangible personal property, and title to assets;

the required vote of our stockholders in connection with the approval of the merger agreement;

intellectual property;

insurance policies;

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absence of improper payments;

the absence of undisclosed brokers' fees; and

the receipt by our board of directors of a fairness opinion from Chartered.

Many of our representations and warranties are qualified by a material adverse effect standard. For purposes of the merger agreement, a material adverse effect relating to us means any change, event, circumstance, development, or occurrence (other than an effect arising out of or resulting from the entering into, or the public announcement or disclosure of, the merger agreement and the transactions contemplated by the merger agreement) that, individually or in the aggregate, (1) has a material adverse effect on our business, financial condition, or ongoing operations or (2) has a material adverse effect on our ability to complete the merger.

The merger agreement also contains various representations and warranties made jointly and severally by CytRx and Merger Subsidiary that are subject, in some cases, to exceptions and qualifications. The representations and warranties by CytRx and Merger Subsidiary relate to, among other things:

their due incorporation, valid existence, and good standing;

their certificates of incorporation and bylaws;

their capitalization, including the number of shares of CytRx common stock, stock options and warrants outstanding;

their power and authority to enter into the merger agreement and to consummate the transactions contemplated by the merger agreement;

the approval by their boards of directors of the merger agreement and the merger and the other transactions contemplated by the merger agreement;

the absence of specified violations of, or conflicts with, their governing documents, applicable law, and certain agreements as a result of entering into the merger agreement and consummating the merger;

the required consents and approvals of governmental entities in connection with the execution, delivery, and performance of the merger agreement and the merger and the other transactions contemplated by the merger agreement;

CytRx's SEC forms, documents, registration statements, and reports filed since January 1, 2007, including the financial statements contained therein;

the accuracy of the information supplied by CytRx and Merger Subsidiary for inclusion in this proxy statement/prospectus;

compliance with applicable laws and permits;

material contracts and compliance with contracts;

the absence of undisclosed brokers' fees; and

the absence of liabilities, obligations, business activities, and operations of Merger Subsidiary.

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Some of the representations and warranties by CytRx and Merger Subsidiary are qualified by a material adverse effect standard. For purposes of the merger agreement, a material adverse effect relating to CytRx or Merger Subsidiary means any change, event, circumstance, development, or occurrence that is materially adverse to (1) the business, financial condition, or ongoing operations of CytRx, or (ii) the ability of CytRx to complete the merger.

The representations and warranties in the merger agreement of Innovive will survive the effective time of the merger. The representations and warranties in the merger agreement of CytRx and Merger Subsidiary will terminate at the effective time of the merger.

Conduct of Our Business Prior to the Merger

Under the merger agreement, we have agreed that, subject to certain exceptions, between June 6, 2008 and the completion of the merger, unless CytRx gives its prior written consent:

we will conduct our business in the ordinary course, consistent with past practice;

we will consult with CytRx, in advance, regarding the conduct and management of our clinical trials and other development activities;

we will use our commercially reasonable efforts to mitigate or compromise our liabilities from time to time; and

we will use reasonable efforts to preserve intact our business organizations and goodwill, keep available the services of our officers and key employees, and preserve the goodwill and business relationships with customers and others having business relationships with us.

We have also agreed that, during the same time period and subject to certain exceptions, we will not take any of the following actions, unless CytRx gives its prior written consent:

amend our certificate of incorporation or bylaws; split, combine, subdivide or reclassify any shares of our outstanding capital stock; declare or pay any dividend or distribution payable in cash, stock, property, or otherwise; or make any other distribution in respect of any shares of our capital stock; or repurchase or otherwise acquire, or modify or amend, any shares of capital stock or any rights, warrants, or options to acquire any such shares;

issue, sell, pledge, or dispose of any additional shares of, or any options, warrants or rights of any kind to acquire any shares of, our capital stock of any class or any debt or equity securities convertible into or exchangeable for such capital stock, except that we may issue shares upon the exercise of currently outstanding warrants;

incur indebtedness for borrowed money; redeem or purchase or offer to purchase shares of our capital stock or rights to acquire our capital stock or securities convertible into or exchangeable for our capital stock; make any acquisition of any capital stock, assets, or businesses of any other person other than expenditures for current assets in the ordinary course of business and expenditures for fixed or capital assets in the ordinary course of business; or sell, pledge, or encumber any assets or businesses that are material to us, subject to specified exceptions;

enter into, amend, or renew any employment, consulting, severance or similar agreement with, or pay any bonus or grant any increase in salary, wage, or other compensation or any increase in any employee benefit to, any of our directors, officers or employees, except in each such case (1) as may be required by applicable law or (2) to satisfy existing obligations;

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enter into, establish, or amend any pension, retirement, stock purchase, savings, profit sharing, deferred compensation, consulting, bonus, group insurance, or other employee benefit, incentive, or welfare plan, agreement, program or arrangement, in respect of any of our directors, officers, or employees, except, in each such case (1) as may be required by applicable law or pursuant to the terms of the merger agreement or (2) to satisfy existing obligations;

except to the extent required under existing employee and director benefit plans, agreements, or arrangements, accelerate the payment, right to payment, or vesting of any bonus, severance, profit sharing, retirement, deferred compensation, stock option, insurance or other compensation or benefits;

make capital expenditures or enter into any contract to make capital expenditures, subject to specified exceptions;

make, change, or revoke any material tax election unless required by law, or make any agreement or settlement with any taxing authority regarding any material amount of taxes;

make any changes in financial or tax accounting methods, principles, or practices (or change an annual accounting period), except insofar as may be required by a change in generally accepted accounting principles or applicable law;

adopt a plan or agreement of complete or partial liquidation or dissolution;

pay, discharge, or satisfy any material claims, material liabilities, or material obligations, (1) other than in the ordinary course of business and (2) other than obligations reflected or reserved against in, or contemplated by, the financial statements (or the notes thereto) contained in our reports filed with the SEC;

agree to the settlement of any material claim, litigation, investigation, or other action;

enter into any agreement that restrains, limits, or impedes the ability of us or the surviving corporation in the merger to compete with or conduct any business or line of business;

materially amend or terminate any material contract, or waive or terminate any material right or material claim, or enter into any material contract;

incur transaction costs and expenses in connection with the merger agreement and the merger and the other transactions contemplated by the merger agreement, including the fees payable to Chartered, in excess of \$200,000 in the aggregate; or

agree to take any of the foregoing actions.

No Solicitation by Us of Alternative Acquisition Proposals

The merger agreement contains restrictions on Innovive's ability to solicit or engage in discussions or negotiations with any third party relating to an **acquisition transaction**, which means:

any license, sublicense or similar arrangement involving any intellectual property of Innovive under any of our license agreements;

any acquisition of assets of Innovive and our subsidiaries (including securities of subsidiaries, but excluding sales of assets in the ordinary course of business) equal to 10% or more of our

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consolidated assets or to which 10% or more of our revenues or earnings on a consolidated basis are attributable;

any acquisition of 10% or more of our outstanding common stock;

any tender offer or exchange offer that if completed would result in any third party beneficially owning 10% or more of our outstanding common stock; or

any merger, consolidation, share exchange, business combination, recapitalization, liquidation, dissolution, or similar transaction involving Innovive and a third party.

An offer or proposal made to us by a third party with respect to a potential or proposed acquisition transaction is referred to in the merger agreement as an **acquisition proposal**.

We have agreed that, prior to the effective time of the merger or the earlier termination of the merger agreement, we will cease any existing discussions or negotiations with any third party regarding an acquisition transaction and will request the prompt return or destruction of all confidential information relating to us or any of our subsidiaries previously furnished to any such person. We have also agreed to cause our and our subsidiaries' respective directors, officers and investment bankers, attorneys, accountants, financial advisors and other advisors, agents, and representatives to comply with the covenants that are described in the preceding sentence.

We have agreed that, prior to the effective time of the merger or the earlier termination of the merger agreement, we will not, and will not permit any of our subsidiaries or representatives to, directly or indirectly:

initiate, solicit, induce, negotiate, encourage, or provide non-public or confidential information to facilitate any inquiry that constitutes, or may reasonably be expected to lead to, an acquisition proposal; or

enter into, continue, or otherwise participate in any discussions or negotiations with any third party regarding, or furnish to any third party any non-public information, or afford access to our properties, books, or records with respect to, any inquiries that constitute, or may reasonably be expected to lead to, an acquisition transaction, or otherwise knowingly facilitate any effort to attempt to make or implement any acquisition transaction, except as described below.

We are required by the merger agreement to notify CytRx promptly after our receipt of any acquisition proposal, indication of interest, or request for non-public information relating to us or our subsidiaries in connection with an acquisition proposal or for access to our or our subsidiaries' properties, books, or records by any third party that informs us that it is considering making, or has made, an acquisition proposal. We are also required to continue to keep CytRx informed of the status of the acquisition proposal. The merger agreement's restrictions on our activities regarding an acquisition proposal do not prevent us from making disclosures about an acquisition proposal that are required by applicable federal securities laws.

Prior to approval of the merger agreement by our stockholders, if we receive a written acquisition proposal from a third party that did not result from a breach of our non-solicitation covenants described above, we may take the following actions notwithstanding the above-described restrictions imposed by the merger agreement:

furnish confidential or non-public information to the third party who made the acquisition proposal and negotiate with the third party with respect to the acquisition proposal (but only after the third party has signed a confidentiality agreement that is no less favorable to us than the confidentiality agreement that CytRx signed);

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resolve to accept, or recommend, the third party's acquisition proposal if our board of directors determines that the acquisition proposal constitutes a **superior proposal**, which means a proposal to acquire, for consideration consisting of cash or securities, all of our equity securities or all, or substantially all, of our consolidated assets and which is otherwise on terms that our board of directors determines in good faith (after consultation with our financial advisor and outside legal counsel) to be more favorable to our stockholders from a financial point of view than the merger and the other transactions contemplated by the merger agreement, taking into account any offer by CytRx to amend the terms of the merger agreement as described below; and

terminate the merger agreement and enter into an agreement with the third party with respect to its superior proposal.

We may take the actions listed in the preceding paragraph only if (1) our board of directors determines, in good faith and after consultation with our financial advisor and outside legal counsel, that the acquisition proposal is or could reasonably be expected to result in a superior proposal and (2) our board determines, in good faith and after consultation with our financial advisor and outside legal counsel, that such action or actions are necessary to comply with our board of directors' fiduciary duties to our stockholders under applicable law. Furthermore, we may not terminate the merger agreement in order to accept the third party's acquisition proposal unless we give CytRx at least four days' prior written notice of our intention to terminate, in which event CytRx will have the right, but not the obligation, to offer to amend the terms of the merger agreement and our board of directors will be obliged to review and determine whether any such amended proposal would result in such superior proposal ceasing to be a superior proposal (and, if so, we must amend the merger agreement to reflect CytRx's amended terms), and we pay a termination fee of \$1,500,000 to CytRx. In addition, the merger agreement prohibits our board of directors from withdrawing or modifying its recommendation in this proxy statement/prospectus that our stockholders approve the merger agreement unless the board determines in good faith, based on those matters as it deems appropriate after consulting with our financial advisor and outside legal counsel, that taking such action is necessary to comply with its fiduciary duties under applicable law.

Merger Subsidiary's Activities

CytRx has agreed to cause Merger Subsidiary to perform its obligations under the merger agreement, and Merger Subsidiary is prohibited from carrying on any business operations prior to the completion of the merger.

Stockholders Meeting

As promptly as practicable, we are required to establish a record date for, give notice of, and hold a special meeting of stockholders to consider the proposal to approve the merger agreement and to use our reasonable best efforts to obtain the approval of our stockholders, including by recommending in the proxy statement/prospectus that our stockholders approve the merger agreement. However, we will be relieved of our obligations with respect to the special meeting if, in accordance with the provisions described below under Termination of the Merger Agreement, our board of directors terminates the merger agreement after receiving a superior proposal, reviewing any offer by CytRx to amend the terms of the merger agreement and paying CytRx a termination fee of \$1,500,000.

Cooperation by the Parties

Each of the parties to the merger agreement has agreed to use all reasonable best efforts to do anything necessary or advisable to consummate and make effective the transactions contemplated by the merger agreement, including using its reasonable best efforts to obtain all necessary or appropriate waivers, consents, or approvals of third parties and to effect all necessary registrations, filings, and submissions. The parties to the merger agreement have agreed to cooperate with each other in connection with the satisfaction of the

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conditions to the completion of the merger, including our agreement to assist CytRx in the preparation and filing of the registration statement of which this proxy statement/prospectus is a part.

Indemnification of Our Directors and Officers

Under the terms of the merger agreement, CytRx and Merger Subsidiary have agreed that, to the fullest extent permitted under applicable law, after the completion of the merger Innovive will indemnify each of our current and former officers, employees, and directors for acts or omissions in his or her capacity as an officer, employee, or director occurring on or before the effective time of the merger.

For a period of three years after the effective time of the merger, CytRx must cause to be maintained (or must cause Innovive to maintain) in effect the current policies of directors and officers liability insurance maintained by us, provided that CytRx may substitute policies, including a tail policy, of at least the same coverage and amounts containing terms and conditions that are no less advantageous to the indemnified parties and which coverage and amounts must be no less than the current coverage and amounts. If the aggregate annual premiums for such insurance would exceed the current aggregate annual premium, then CytRx may provide or cause to be provided a policy for the applicable individuals with the best coverage as is then available at an annual premium of not more than 125% of the current aggregate annual premium.

Other Agreements

The merger agreement contains additional agreements among us, CytRx and Merger Subsidiary relating to, among other things:

giving the other parties access to its offices, properties, books, and records;

giving the other parties notices of certain events;

preparing and filing with the SEC the registration statement containing this proxy statement/prospectus and cooperating in investor meetings and road show presentations;

coordination of press releases;

entering into the loan and security agreement; and

obtaining the removal of Steven Kelly as a guarantor of our existing office lease.

Conditions to the Merger

The obligations of the parties to complete the merger are subject to the satisfaction or waiver of the following mutual conditions:

Stockholder Approval - The approval of the merger agreement by Innovive's stockholders must have been obtained in accordance with the Delaware General Corporation Law;

No Law or Orders - None of the parties to the merger agreement shall be subject to any law, order, injunction, judgment, or ruling by any governmental authority that prohibits the consummation of the merger or makes the consummation of the merger illegal;

Effective Registration Statement - The registration statement of which this proxy statement/prospectus is a part must be effective under the Securities Act of 1933, as amended, and there must be no pending stop order issued or proceeding for purpose initiated by the SEC;

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Blue Sky Exemption - The issuance of the shares of CytRx common stock issuable in payment of the initial merger consideration shall be exempt from registration, or shall have been appropriately registered or qualified, under applicable state securities laws;

Nasdaq Listing - The shares of CytRx common stock issuable in payment of the initial merger consideration shall have been listed on The Nasdaq Capital Market; and

No Lawsuits - There must not be pending any action, suit, or other proceeding (1) seeking to restrain or prohibit the consummation of the merger or seeking to obtain damages from Innovive, CytRx, or Merger Subsidiary, (2) seeking the disposition of any material assets or businesses of Innovive, or (3) otherwise seeking to limit the actions of CytRx with respect to Innovive after the completion of the merger.

The obligations of CytRx and Merger Subsidiary to complete the merger are subject to the satisfaction or waiver of the following additional conditions:

Representations and Warranties - Our representations and warranties contained in the merger agreement must be true and correct, except for specified immaterial failures;

Performance of Covenants - We must have performed in all material respects all obligations required to be performed by us by the effective time of the merger under the merger agreement, except for specified immaterial failures;

Officers Certificate - We must have delivered to CytRx and Merger Subsidiary an officers certificate with respect to the satisfaction of the conditions relating to our representations, warranties, and covenants;

Resignations - CytRx must have received the resignations, effective as of the effective time of the merger, of each of our directors and officers; and

Dissenters Rights - Dissenting shares, if any, must constitute not more than 5% of the outstanding shares of Innovive common stock.

Our obligation to complete the merger is subject to the satisfaction or waiver of the following additional conditions:

Representations and Warranties - The representations and warranties of CytRx and Merger Subsidiary contained in the merger agreement must be true and correct, except for specified immaterial failures;

Performance of Covenants - CytRx and Merger Subsidiary must have performed in all material respects all obligations required to be performed by them by the effective time of the merger under the merger agreement; and

Officers Certificate - CytRx and Merger Subsidiary must have delivered to Innovive an officers certificate with respect to the satisfaction of the conditions relating to their representations, warranties, and covenants.

Termination of the Merger Agreement

The merger agreement may be terminated and the merger may be abandoned at any time prior to the effective time of the merger (notwithstanding any approval of the merger agreement by our stockholders) as follows:

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by the mutual written consent of us and CytRx;

by either us or CytRx, if the merger has not been completed by September 30, 2008; provided, however, that the right to terminate the merger agreement for this reason is not available to a party whose failure to perform its covenants has caused the failure of the merger to occur by this date; and provided further, that the right to terminate for this reason is not available to any party if the closing has not occurred due solely to the failure of the condition relating to effectiveness of the registration statement of which this proxy statement/prospectus is a part notwithstanding CytRx's performance of its obligations relating to the filing and effectiveness of the registration statement;

by either us or CytRx, if (1) there has been a breach by the other party of any representation or warranty contained in the merger agreement which would reasonably be expected to have a material adverse effect and which breach is not curable or, if curable, the breaching party is not using on a continuous basis its reasonable best efforts to cure in all material respects such breach, or (2) there has been a breach of any of the covenants set forth in the merger agreement on the part of the other party which would reasonably be expected to have a material adverse effect and which breach is not curable or, if curable, the breaching party is not using on a continuous basis its reasonable best efforts to cure such breach;

by either us or CytRx following the entry of any final and non-appealable judgment, injunction, order, or decree by a court or governmental agency restraining or prohibiting the consummation of the merger;

by us, if, prior to receipt of stockholder approval of the merger agreement, we receive a superior proposal described above under No Solicitation by Us of Alternative Acquisition Proposals, we resolve to accept the superior proposal as described below under Termination Fees, and we give CytRx at least four days' prior written notice of our intention to terminate the merger agreement and comply with our obligations with respect to any offer by CytRx to amend the terms of the merger agreement and we pay CytRx a termination fee of \$1,500,000;

by CytRx, if our board of directors fails to recommend that our stockholders approve the merger agreement, or if our board withdraws, modifies, or amends in a manner adverse to CytRx in any material respect the board's recommendation to our stockholders to approve the merger agreement, or if our board recommends another acquisition proposal, or if our board resolves to accept a superior proposal or recommends to our stockholders that they tender their shares in a tender or an exchange offer commenced by a third party; or

by CytRx, if we receive an acquisition proposal from any person and our board of directors takes a neutral position or makes no recommendation with respect to such acquisition proposal and does not publicly reaffirm its recommendation to approve the merger agreement after a reasonable amount of time (and in no event more than five business days following such receipt) elapses for our board of directors to review and make a recommendation with respect to such acquisition proposal; or

by CytRx or us, if our stockholders fail to approve the merger agreement at the special meeting of stockholders (including any adjournment or postponement of the meeting).

Termination Fee

We will owe CytRx a termination fee of \$1,500,000 if:

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we terminate the merger agreement because, prior to receipt of stockholder approval of the merger agreement, we receive a superior proposal described above under No Solicitation by Us of Alternative Acquisition Proposals and resolve to accept the superior proposal;

CytRx terminates the merger agreement because (1) our board of directors fails to recommend that our stockholders approve the merger agreement, or if our board withdraws, modifies, or amends in a manner adverse to CytRx in any material respect our board's recommendation to our stockholders to approve the merger agreement, or if our board recommends another acquisition proposal, or if our board resolves to accept a superior acquisition proposal or recommends to our stockholders that they tender their shares in a tender or an exchange offer commenced by a third party, or (2) Innovive receives an acquisition proposal from another person and our board of directors takes a neutral position or makes no recommendation with respect to such acquisition proposal and does not publicly reaffirm its recommendation to approve the merger agreement after a reasonable amount of time elapses for our board of directors to review and make a recommendation with respect to such acquisition proposal;

CytRx terminates the merger agreement because we have breached our covenants in the merger agreement regarding the solicitation of competing acquisition proposals described above under No Solicitation by Us of Alternative Acquisition Proposals; or

we or CytRx terminates the merger agreement because our stockholders fail to approve the merger agreement at the special meeting; provided, however, that the termination fee described in this paragraph will be owed by us only if (1) we enter into another acquisition transaction within one year after the termination of the merger agreement and (2) the proposal for such acquisition transaction was made prior to the date of the special meeting of stockholders.

Indemnification and Offset

The merger agreement contains indemnification rights for the benefit of CytRx (1) to the extent our actual net liabilities (as defined) as of June 6, 2008 exceeded our estimated net liabilities of \$3,746,538 as represented by us in the merger agreement and (2) for all losses (including the first \$50,000 of any such losses) to CytRx resulting from breaches of our representations and warranties once such losses exceed a \$50,000 threshold and (3) actual deposits returned to or recovered by CytRx or the surviving corporation are less than the deposits previously disclosed by us. CytRx's recourse for indemnification will be limited to its right of offset against any earnout merger consideration. The termination fee and indemnification provisions of the merger agreement and right of offset are generally the sole remedies for CytRx with respect to any breaches of Innovive's representations and warranties in the merger agreement.

Amendment and Waiver

Any provision of the merger agreement may be amended or waived prior to the effective time of the merger if, and only if, such amendment or waiver is in writing and signed, in the case of an amendment, by Innovive, CytRx, and Merger Subsidiary or, in the case of a waiver, by the party against whom the waiver is to be effective.

Stockholder Representative

If the merger agreement is approved at the special meeting, you will be deemed to have appointed Steven Kelly, our President and Chief Executive Officer, as your agent and attorney-in-fact for purposes of the merger agreement if the merger is completed. The stockholder representative will have the power to agree to, negotiate, enter into settlements and compromises of, and comply with orders of courts and awards of arbitrators with respect to, the determination of our liabilities as of the date of the merger agreement, our net sales and any losses (as those terms are used in the merger agreement) and to resolve any disputes with

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respect to the same and take all actions necessary in the judgment of the stockholder representative for the accomplishment of the terms, conditions and limitations of the merger agreement. You will be bound by all actions taken by the stockholder representative in connection with the merger agreement, and CytRx will be entitled to rely on any action or decision of the stockholder representative as being your decision, act, consent or instruction. With some exceptions, CytRx will be relieved from any liability to any person for any acts done by it in accordance with such decision, act, consent or instruction of the stockholder representative. The stockholder representative also will have no liability with respect to any action taken or suffered by him in reliance upon any notice, direction, instruction, consent, statement or other document believed by him to be genuine and to have been signed by the proper person (and shall have no responsibility to determine the authenticity thereof), nor for any other action or inaction, except his own willful misconduct or gross negligence. The stockholder representative may rely on the advice of counsel, and will not be liable to any person for anything done, omitted to be done or suffered in good faith by the stockholder representative based on such advice.

The stockholder representative will not be required to take any action involving any expense to the stockholder representative unless the payment of such expense is made or provided for in a manner satisfactory to him. The reasonable legal fees and other expenses, if any, incurred by the stockholder representative in performance of his duties hereunder, not to exceed \$20,000 in the aggregate, will be advanced by CytRx. CytRx also will compensate the stockholder representative at the rate of \$250 per hour, not to exceed \$10,000 in the aggregate, for the performance of his duties. All such legal fees and expenses and compensation of the stockholder representative, including any such legal fees and expenses in excess of \$20,000, will be paid or reimbursed to CytRx or the stockholder representative, as the case may be, from the earnout merger consideration, if any.

The stockholder representative will establish and maintain a register of our stockholders and warrant holders for purposes of payment and distribution of any earnout merger consideration. CytRx will be entitled to rely conclusively on such register for purposes of determining the persons to whom the earnout merger consideration will be payable.

The stockholder representative may resign by giving 30 days prior notice to CytRx and appoint a successor stockholder representative.

CytRx has agreed in the merger agreement to indemnify and hold harmless the stockholder representative from and against any and all loss, liability, cost, damage and expense, which the stockholder representative may suffer or incur by reason of any action, claim or proceeding brought against the stockholder representative, in his capacity as such (but not in any other capacity), arising out of or relating in any way to the merger agreement or the performance of the stockholder representative's duties pursuant thereto unless such action, claim or proceeding is the result of the willful misconduct or gross negligence of the stockholder representative.

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Accounting Treatment

Under accounting principles generally accepted in the United States and the regulations of the Securities and Exchange Commission, since Innovive is a development-stage company, it is not considered a business. Accordingly, the merger will be accounted for by CytRx in accordance with Statement of Financial Standard No. 142, *Goodwill and Other Intangible Assets*, for transactions other than a business combination. Management of CytRx has further determined it is not required to include in the proxy statement/prospectus pro forma financial statements of CytRx giving effect to the merger.

The initial merger consideration, together with direct costs incurred to effect the merger, will be allocated to the individual assets acquired, including identifiable intangible assets, and liabilities assumed based on their relative fair values. No goodwill will be recorded. Consolidated financial statements of CytRx issued after the merger will reflect these fair values and will not be restated retroactively to reflect the historical financial position or results of operations of Innovive. CytRx will use a period of time beginning two days before and ending two days after the date that the terms of the acquisition were agreed to and announced in determining the fair value of the CytRx shares to be issued to Innovive stockholders. It is anticipated that CytRx will record a one-time expense for in-process research and development it acquires, as well as the amount, if any, the initial merger consideration paid by CytRx in excess of the fair market values of the acquired assets and liabilities.

Additional merger consideration that is contingent upon certain events, none of which has occurred as of the date of this proxy statement/prospectus, will be excluded from the initial merger consideration.

Table of Contents**ANCILLARY AGREEMENTS**

In connection with entering into the merger agreement, CytRx and some of Innovive's directors and officers and their affiliates entered into support agreements. The form of the support agreements is attached to this proxy statement/prospectus as Appendix B. In connection with entering into the merger agreement, we also entered into a loan and security agreement with CytRx. This section summarizes the material terms of the support agreements and the loan and security agreement. We encourage you to read carefully the form of the support agreements and the loan and security agreement in their entirety, because this section may not contain all of the information about the support agreements and the loan and security agreement that is important to you.

Support Agreements

In connection with the merger agreement, and concurrently with the execution of the merger agreement, Steven Kelly, Neil Herskowitz, J. Jay Lobell and Eric Poma, M.D., each of whom is a director or officer of Innovive, and their affiliates, Lindsay A. Rosenwald, M.D., and Lester Lipshutz, as investment manager or trustee of trusts established for the benefit of Dr. Rosenwald and his family, along with Angelo De Caro, who recently resigned as a director, have agreed pursuant to support agreements that they have entered into with CytRx and Merger Subsidiary to vote all Innovive shares that they control in favor of the merger agreement. These directors and officers and their affiliates own beneficially an aggregate of approximately 22% of the shares of common stock entitled to vote at the special meeting. They also agreed in the support agreements to vote such shares (1) against any action or agreement that would result in a breach of any representation, warranty, or covenant of Innovive under the merger agreement, (2) against any competing acquisition proposal, and (3) against any agreement or other action that is intended, or could reasonably be expected to, prevent or delay the completion of the merger, and not to solicit proxies or participate in a solicitation with respect to a competing acquisition proposal.

In order to facilitate the support agreements, concurrently with the signing of the support agreements, these beneficial owners delivered to CytRx irrevocable proxies to vote all of the Innovive shares that they control in favor of the approval of the merger agreement.

Under the support agreements, these beneficial owners agreed that, for the duration of the support agreements, they will not sell, pledge, or otherwise transfer any shares of Innovive common stock that they beneficially own, other than transfers for estate planning or charitable purposes if the transferee agrees to comply with the support agreement.

The support agreements will terminate upon the earlier of the completion of the merger and the date of termination of the merger agreement in accordance with its terms.

Loan And Security Agreement

Concurrently with entering into the merger agreement, we entered into a loan and security agreement with CytRx pursuant to which CytRx made an initial advance to us of approximately \$1,725,000, which was used to pay some of our current accounts payable and accrued expenses. Under the loan agreement, we may request that CytRx make additional advances in the cumulative aggregate principal amount of up to approximately \$3,775,000. All additional advances requested by us will be at CytRx's discretion. Additional advances may be used by us for working capital and general corporate purposes consistent with our covenants under the merger agreement, including for professional and other fees and expenses and other transaction costs incurred by us in connection with the merger agreement. We must state in each advance request the specific intended uses of the advance, and any actual use of an advance that differs materially from the intended use will constitute a material breach of the loan agreement. As of July 31, 2008, we had requested, and CytRx had made, approximately \$662,000 of additional advances under the loan and security agreement.

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All advances under the loan agreement are secured by a lien on all or substantially all of our assets, bear interest at the rate of 12.5% per annum, and generally are due and payable, in full, together with accrued interest, on the earlier of the date of termination of the merger agreement or September 30, 2008. We may prepay advances under the loan agreement, without premium or penalty, in whole or in part, at any time or from time to time.

Upon the occurrence and during the continuance of an event of default (as defined in the loan and security agreement), the interest rate on the outstanding principal under the loan agreement will be increased by 200 basis points.

The following events will constitute an event of default under the loan agreement:

if we fail to make any payment of principal or of interest under the loan agreement or other obligations (as defined in the loan and security agreement) when such payment is due and payable;

if we fail to perform, comply with or observe any other covenant or undertaking contained in the loan agreement and such failure continues for ten days;

if any warranty, representation or other statement by or on behalf of us contained in or pursuant to the loan agreement, or in any related document, agreement or instrument, is false, erroneous, or misleading in any material respect when made;

if any provision of the loan agreement or any material term of the merger agreement is declared void, or the validity or enforceability thereof is contested by us or any governmental authority having jurisdiction over us;
or

if there is a seizure or attachment of, or a levy on, any of the collateral under the loan agreement; provided, that an event of default will not include any of the foregoing events that result from CytRx's failure or refusal, in the exercise of its discretion, to make an additional advance requested by us.

In the event of default, CytRx may, in its discretion, terminate the loan agreement, and generally will have all rights and remedies granted or available to CytRx under the loan agreement or available at law or in equity.

In consideration for entering into the loan agreement and making the initial advance, we granted CytRx under the loan agreement an option to purchase up to 2,000,000 shares of common stock of Innovive at an exercise price of \$0.01 per share. CytRx may exercise the option at any time after we terminate the merger agreement to pursue a superior proposal as permitted by the merger agreement and prior to the first anniversary of our completion of a superior proposal. The initial exercise price and the number of option shares purchasable upon exercise of the option will be subject to adjustment in case of any reclassification, capital reorganization, consolidation, merger, sale of all or substantially all of our assets or any other change in Innovive common stock.

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CytRx common stock is listed on The Nasdaq Capital Market and our common stock is quoted on the OTCBB. The following table sets forth the high and low sales prices of shares of CytRx common stock and high and low bid prices of our common stock as reported on The Nasdaq Capital Market and the OTCBB, respectively. The quotations for our common stock represent inter-dealer prices, without retail mark-up, mark-down or commission, and may not represent actual transactions.

	CytRx Common Stock		Innovive Common Stock	
	High	Low	High	Low
2006	\$	\$	\$	\$
First Quarter	1.92	1.01	NA	NA
Second Quarter	2.30	1.06	NA	NA
Third Quarter	1.94	0.87	NA	NA
Fourth Quarter	2.04	1.21	4.25	3.25
2007				
First Quarter	5.49	1.74	6.00	2.90
Second Quarter	5.36	2.97	4.50	2.50
Third Quarter	4.09	3.00	3.50	1.55
Fourth Quarter	4.70	2.60	2.10	0.70
2008				
First Quarter	2.98	1.00	1.25	0.12
Second Quarter (Through July 31, 2008)	1.27	0.43	0.65	0.05

On June 6, 2008, the last full trading day before the public announcement of the merger agreement, the closing price of CytRx common stock as reported on The Nasdaq Capital Market was \$0.99. On August __, 2008, the last full trading day before the date of this proxy statement/prospectus, the closing price of shares of CytRx common stock as reported on The Nasdaq Capital Market was \$_____.

On June 6, 2008, the last full trading day before the public announcement of the merger agreement, the closing price of shares of our common stock as reported on the OTCBB was \$0.15. On August __, 2008, the last full trading day before the date of this proxy statement/prospectus, the closing price of our common stock as reported on the OTCBB was \$_____.

As of July 31, 2008, there were approximately 743 registered holders of CytRx common stock and 171 registered holders of our common stock. CytRx and Innovive believe that a number of investors in CytRx common stock and our common stock hold their shares in street name and that the number of beneficial owners to CytRx common stock and our common stock is greater than the number of registered holders.

You are advised to obtain current market quotations for CytRx common stock and our common stock. The market prices of CytRx common stock and our common stock will fluctuate between the date of this proxy statement/prospectus and the special meeting date and the completion of the merger. No assurance can be given concerning the market price of CytRx common stock and our common stock before or after the effective date of the merger.

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Dividends

Neither we nor CytRx has ever paid any cash dividends on its common stock, and we and CytRx do not expect to pay any cash dividends in the foreseeable future.

BUSINESS OF CYTRX

Overview

CytRx is a clinical-stage biopharmaceutical company engaged in developing human therapeutic products based primarily upon its small-molecule molecular chaperone amplification technology. Molecular chaperone proteins occur normally in human cells and are key components of the body's defenses against potentially toxic mis-folded cellular proteins. Since damaged toxic proteins called aggregates are thought to play a role in many diseases, CytRx believes that amplification of molecular chaperone proteins could have therapeutic efficacy for a broad range of indications. Currently, CytRx is using its chaperone amplification technology to develop treatments for neurodegenerative disorders and diabetic complications. In addition, CytRx has been applying molecular chaperone technology to the identification of drug candidates for oncology by adapting its proprietary chaperone screening assay to identify inhibitors (rather than amplifiers) of chaperone activity.

In December 2007, CytRx began enrolling patients in a Phase IIb efficacy clinical trial of its lead product candidate, arimoclomol, for ALS. That Phase IIb clinical trial was placed on clinical hold by the FDA in January 2008. Based on written correspondence CytRx received from the FDA, their decision pertained to a previously completed animal toxicology study in rats and was not related to data generated from any human studies with arimoclomol. CytRx received a formal determination letter from the FDA in July 2008. In light of the ongoing clinical hold, CytRx recently announced plans to conduct additional animal toxicology studies of arimoclomol, which are expected to take up to one year to complete, before any possible resumption or initiation of clinical trials of arimoclomol. Depending on the outcome of those preclinical toxicology studies and other factors, CytRx plans to thereafter resume the Phase IIb efficacy trial. CytRx currently anticipates that data regarding the primary efficacy endpoint of this trial would be available approximately 18 months following the resumption of the trial. The results from CytRx's completed Phase IIa clinical trial and open-label trial extension indicated that arimoclomol was safe and well tolerated by ALS patients. Based on preliminary discussions with the FDA, CytRx plans to conduct a second efficacy trial of arimoclomol for ALS, possibly overlapping with the Phase IIb efficacy trial, to provide additional data to support a possible approval decision by the FDA. Arimoclomol for treating ALS has received Orphan Drug and Fast Track designation from the FDA and orphan medicinal product status from the European Medicines Agency.

The results from preclinical efficacy studies completed by CytRx in April 2007 indicated that arimoclomol accelerated recovery time, and improved recovery, in experimental animal models of stroke, even when administered as long as 48 hours after onset. Contingent upon the results of the planned animal toxicology studies of arimoclomol and other factors, CytRx plans to conduct a Phase II clinical trial of arimoclomol in stroke patients.

Iroxanadine, CytRx's second small-molecule product candidate, has completed Phase I clinical trials. The results from the Phase I trials indicated that orally-administered iroxanadine was safe and well tolerated in healthy volunteers. The results from an open-label Phase II clinical trial in patients with chronic high blood pressure indicated that oral iroxanadine improved the functioning of endothelial cells that line the interior of blood vessels and are thought to be damaged by conditions of stress such as chronic high blood pressure and diabetes. Animal studies completed by CytRx in May 2007 indicated that iroxanadine accelerated the healing of skin wounds in diabetic animals. Subject to FDA clearance, CytRx plans to initiate a Phase II clinical trial of oral iroxanadine for diabetic ulcers in the first quarter of 2009.

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CytRx also owns several other small-molecule compounds that it believes may amplify molecular chaperone proteins in human cells. In July 2007, CytRx opened a research and development facility in San Diego, California, to serve as a dedicated laboratory to accelerate development of CytRx's pipeline of molecular chaperone amplification product candidates. In April 2008, CytRx announced that its scientists had discovered a novel series of compounds that amplify the natural cellular chaperone response to toxic misfolded proteins in cell culture, providing potential pipeline leads for next-generation drug candidates in a number of disease indications, including cancer, cardiovascular disease, diabetes and neurodegenerative diseases.

CytRx's Molecular Chaperone Amplification Platform

The synthesis of proteins is a normal part of essential human cell activity. In order to function normally, proteins must fold into particular three-dimensional shapes. In response to trauma or other stressful conditions, proteins can fold improperly, resulting in the aggregation of mis-folded proteins that can be toxic to the cell and cause or contribute to disease. It is believed, for example, that mis-folding and aggregation of certain mutated forms of a particular protein known as superoxide dismutase 1, or SOD1, leads to the death of motor neurons that causes certain forms of ALS. Similar protein aggregates also are present in motor neurons of all other ALS patients.

In nature, the cell has developed molecular chaperone proteins to respond to mis-folded proteins. As a cell comes under stress, proteins begin to mis-fold into toxic shapes, and the cell responds by increasing the synthesis of molecular chaperone proteins that detect the mis-folded proteins and refold them into the appropriate, non-toxic shape, or identify, or tag, the toxic protein for destruction by the cell.

By boosting the cell's own molecular chaperone response to higher levels, CytRx believes that the progression of chronic diseases such as ALS that are thought to be caused by protein mis-folding may be slowed or halted, or perhaps even reversed. In *in-vitro* studies, for example, mammalian cells engineered to have increased amounts of molecular chaperone proteins showed resistance to a variety of otherwise lethal stresses. Increased molecular chaperone proteins also significantly extended the lifespan of mice with spinal and bulbar muscular atrophy, a disease with a pathology believed to be similar to ALS.

Some potential drug candidates have been reported in scientific papers as activating molecular chaperone expression, but they appear to activate the response of molecular chaperone proteins in all cells, including normal cells. CytRx is not aware of another pharmaceutical company engaged in developing small-molecule amplifiers of molecular chaperone proteins that are activated only in stressed or diseased cells.

CytRx's Product Candidate Pipeline

The following tables summarize the current pipeline of CytRx's product candidates:

Technology	Product candidate	Indication	Development Status
	Arimoclomol	ALS (Lou Gehrig's disease)	Phase IIb Pending
Molecular chaperone amplification	Arimoclomol	Stroke recovery	Phase II Pending
	Iroxanadine	Diabetic foot ulcers	Phase II (Q1 2009)
	Novel Compound Series	Multiple indications	Preclinical

CytRx's Clinical Development Programs

CytRx's clinical development programs consist of CytRx's ongoing efforts to develop arimoclomol for ALS and stroke recovery and to develop iroxanadine for diabetic ulcers.

Arimoclomol. Arimoclomol is an orally-administered small-molecule product candidate that CytRx believes functions by stimulating a normal cellular protein repair pathway by amplifying activated molecular chaperone proteins implicated in neurological disorders.

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Arimoclomol for the treatment of ALS. ALS, or Lou Gehrig's disease, is a debilitating and ultimately deadly disease involving the progressive degeneration of motor neurons believed to be caused by toxic mis-folding of proteins. According to the ALS Association, approximately 30,000 people in the United States are living with ALS and 5,600 new cases are diagnosed each year. Worldwide, an estimated 120,000 people are living with ALS. According to the ALS Survival Guide, 50% of ALS patients die within 18 months of diagnosis and 80% die within five years of diagnosis.

The following is a summary of CytRx's clinical development of arimoclomol for treating ALS:

in July 2006, CytRx completed an 84-patient, multi-center, double-blind, placebo-controlled, multi-dose Phase IIa clinical trial of safety and tolerability of arimoclomol in volunteers with ALS, which CytRx refer to as the Phase IIa trial;

in May 2007, CytRx completed an open-label extension of the Phase IIa trial in approximately 70 ALS patients from the trial who were administered the highest investigational dose (100 mg three times daily) of arimoclomol for an additional six months;

in June 2007, CytRx completed a multiple ascending-dose clinical trial of safety and tolerability involving 40 healthy volunteers;

in November 2007, CytRx completed a 28-day safety clinical trial with 400 mg of arimoclomol three times daily involving 16 healthy volunteers; and

in December 2007, CytRx initiated patient screening in a double blind, placebo-controlled Phase IIb clinical study. In this trial, CytRx expects to enroll 390 ALS patients at 30 to 40 clinical sites in the United States and Canada. The primary purpose of this trial is to evaluate the safety and efficacy of up to a 400 mg dose of arimoclomol administered orally three times daily. The Phase IIb clinical trial was placed on clinical hold by the FDA in January 2008. Based on written correspondence CytRx received from the FDA, their decision pertained to a previously completed animal toxicology study in rats and was not related to data generated from any human studies with arimoclomol. CytRx received a formal determination letter from the FDA in July 2008. In light of the ongoing clinical hold, CytRx recently announced plans to conduct additional preclinical toxicology studies of arimoclomol, which are expected to take up to one year to complete, before any possible resumption or initiation of clinical trials of arimoclomol.

Phase IIa clinical trial. Participants in the Phase IIa clinical trial of arimoclomol were administered either a placebo capsule, or one of three dosage levels of arimoclomol capsules, three times daily for a period of 12 weeks, immediately followed by a one-month period without the drug. The primary endpoints of the Phase IIa trial were safety and tolerability. Secondary endpoints included a preliminary evaluation of efficacy using two widely accepted disease-progression markers. The first marker, the revised ALS Functional Rating Scale, or ALSFRS-R, is used to determine patients' overall functional capacity and independence in 13 activities. The second marker measures vital capacity, an assessment of lung capacity, which is an important disease indicator since ALS sufferers eventually lose the ability to breathe on their own. The trial was designed to be able to detect only extreme responses in these two markers.

The results from CytRx's Phase IIa trial and open-label extension clinical trial indicated that arimoclomol was safe and well-tolerated in ALS volunteers, even at the highest administered dose. Arimoclomol was detected in participants cerebral spinal fluid, demonstrating that it passed the so-called blood:brain barrier, and participants treated with arimoclomol experienced a statistically significant decrease in adverse events of weakness compared with the placebo group. As would be expected based upon the small size and short duration of the Phase IIa trial, CytRx observed no statistically significant effects in disease progression markers. CytRx did, however, observe a trend toward slower disease progression in the highest dosage group. Since there was no concurrent placebo control group in CytRx's open-label extension clinical

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trial, CytRx compared the results with results in an untreated placebo group with similar characteristics in a prior ALS clinical trial published in July 2006 in *Annals of Neurology*. The results indicated a trend toward a slower average progression in every disease marker in the patients treated with arimoclomol compared to the historical placebo control. In particular, CytRx observed a decrease of 21% in the rate of decline for ALSFRS-R, 8% for vital capacity, 23% for total body weight and 20% for body mass index when compared with that historical control. No definitive conclusions can be drawn from these data without a concurrent placebo control group, and investors are cautioned against relying on these data as an indication of arimoclomol's potential efficacy.

The favorable safety and tolerability profile observed in CytRx's Phase IIa trial, open-label extension clinical trial and animal toxicology studies of arimoclomol suggested that CytRx may be able to safely increase the dose of arimoclomol without causing significant side effects. The results from the subsequent multiple ascending-dose study indicated that arimoclomol was safe and well-tolerated, even at doses of 600 mg three times daily (six times higher than the highest dose used in the Phase IIa and open-label studies), when administered to healthy volunteers over a seven-day period. Results from the 28-day safety clinical trial in healthy volunteers indicated that the dosage of 400 mg administered three times daily also was safe and well tolerated.

Phase IIb efficacy trial. If resumed, the Phase IIb efficacy trial is expected to evaluate the safety and efficacy in ALS patients of up to a 400 mg dose of arimoclomol administered orally three times daily. CytRx expects to enroll in the trial 390 ALS patients in two stages. CytRx first expects to enroll 24 patients in a four-week safety lead-in stage involving weekly clinical monitoring to assure that the safety previously observed in healthy volunteers is also observed in the ALS volunteers. Unless serious safety issues are observed during this lead-in stage, CytRx plans to continue uninterrupted dosing for these participants, but clinical monitoring would be reduced to a four-week basis for the remainder of the study. An independent data monitoring committee will review all safety data from the four-week lead-in stage. If no substantial safety issues are identified, CytRx expects to enroll the remaining 366 ALS volunteers in the second stage. With the exception of the 24 participants in the first stage of the trial, all of the ALS trial volunteers will be monitored every four weeks for the initial nine-month trial period. After collecting primary efficacy endpoint data, CytRx plans to continue double-blind administration of arimoclomol in trial patients with monitoring at eight-week intervals for an additional nine months in order to provide additional data on secondary endpoints and on long-term safety and efficacy.

The Phase IIb clinical trial was placed on clinical hold by the FDA in January 2008. Based on written correspondence CytRx received from the FDA, their decision pertained to a previously completed animal toxicology study in rats and was not related to data generated from any human studies with arimoclomol. CytRx received a formal determination letter from the FDA in July 2008. In light of the ongoing clinical hold, CytRx recently announced plans to conduct additional preclinical toxicology studies of arimoclomol, which are expected to take up to one year to complete, before any possible resumption or initiation of clinical trials of arimoclomol. Depending on the outcome of those preclinical toxicology studies and other factors, CytRx plans to thereafter resume the Phase IIb efficacy trial. Assuming no significant modifications are made to the trial protocol, CytRx currently expects to complete patient enrollment in the Phase IIb efficacy trial approximately nine months following the resumption of the trial, and anticipate that data regarding the trial's primary efficacy endpoint would be available approximately 18 months following the resumption of the trial.

Based on preliminary discussions with the FDA, CytRx plans to conduct a second efficacy clinical trial for ALS, possibly overlapping with the Phase IIb efficacy trial, to provide additional data to support possible FDA approval.

Arimoclomol for the treatment of stroke. Stroke results from an acute loss of normal blood flow to the brain caused most often by a blockage in a blood vessel (ischemic) or due to leaking of blood from a vessel (hemorrhagic). According to the American Heart Association; stroke is *the* third leading cause of death and the

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number one cause of long-term disability in the United States; between 50% and 70% of stroke survivors regain functional independence, but between 15% and 30% are permanently disabled and 20% require institutional care within three months after stroke; and the direct and indirect stroke cost in the United States totaled approximately \$58 billion in 2006.

After the normal flow of blood is restored to the brain after the initial event, post-stroke neurological function continues to decline. CytRx believes that this continuing decline in neurological function is the consequence of mis-folded protein aggregates generated as a result of oxygen deprivation during the original event.

Preclinical efficacy studies completed by CytRx in April 2007 indicated that arimoclomol accelerated the time to recovery, and improved recovery, in experimental animal models of stroke. These results were obtained even when arimoclomol was administered as long as 48 hours after onset.

By comparison, tissue plasminogen activator, or t-PA, the only treatment currently approved in the United States for acute ischemic stroke, must be administered within three hours of stroke, which substantially limits the number of patients who qualify for this treatment. Contingent upon the results of the planned animal toxicology studies or arimoclomol and other factors, CytRx plans to conduct a Phase II clinical trial of arimoclomol in stroke patients.

Iroxanadine. Iroxanadine also is an orally-administered small-molecule product candidate. CytRx believes it functions by stimulating the molecular chaperone protein response in the endothelium, the thin layer of cells that line the interior surface of human blood vessels.

Iroxanadine for the treatment of diabetic ulcers. Type 2 diabetes is a major health problem with significant secondary complications. The American Diabetes Association estimates that there are 21 million type 2 diabetes sufferers in the United States. The World Health Organization estimates that there are more than 162 million cases of type 2 diabetes worldwide. According to the American Diabetes Association, 15% of all diabetics will develop a foot ulcer during their lifetime, and over 82,000 non-traumatic lower-limb amputations were performed on diabetics in the United States in 2002 due to such ulcers and other complications. CytRx believes there is strong support in the scientific literature for the assertion that diabetic foot ulcers fail to heal efficiently, in part, due to the dysfunction of endothelial cells lining the blood vessels caused by protein mis-folding.

Animal studies completed by CytRx in May 2007 indicated that iroxanadine significantly decreased the time it took for wounds to heal in diabetic mice without affecting healing in healthy mice. Wound healing in the diabetic mice, which normally required twice the time to heal as healthy mice, was accelerated to the extent that healing time of diabetic mice treated with iroxanadine was indistinguishable from that in untreated healthy mice.

In Phase I clinical trials in healthy volunteers and Phase II clinical trials in patients with chronic high blood pressure conducted prior to CytRx's acquisition of iroxanadine, iroxanadine was determined to be safe and well tolerated and demonstrated significant improvement in the function of endothelial cells in the brachial artery, a major blood vessel of the upper arm. Based on CytRx's preclinical results and the earlier clinical study data, CytRx plans to commence a Phase II clinical trial with oral iroxanadine for the treatment of diabetic foot ulcers in the first quarter of 2009, subject to FDA clearance.

CytRx's Research Programs and Other Technologies

CytRx is actively conducting scientific research at CytRx's research and development facility in San Diego, California. CytRx's research is aimed at discovering and validating novel drug targets, analyzing CytRx's current product candidates and library of related compounds and developing backup compounds and new therapies based on the amplification of molecular chaperone proteins. In April 2008, CytRx announced

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that its scientists had discovered a novel series of compounds that amplify the natural cellular chaperone response to toxic misfolded proteins in cell culture, providing potential pipeline leads for next-generation drug candidates in a number of disease indications, including cancer, cardiovascular disease, diabetes and neurodegenerative diseases.

CytRx's other current technologies, which it acquired or developed prior to the acquisition of CytRx's molecular chaperone amplification technology, are CRL-5861, an intravenous agent for treatment of sickle cell disease and other acute vaso-occlusive disorders, and TranzFect, a delivery technology for DNA-based and conventional vaccines and other potential uses.

CytRx's Separation from RXi Pharmaceuticals Corporation

RXi Pharmaceuticals Corporation, or RXi, was founded in April 2006 by CytRx and four researchers in the field of RNAi, including Dr. Craig Mello, recipient of the 2006 Nobel Prize for Medicine for his co-discovery of RNAi. RNAi is a naturally occurring mechanism for the regulation of gene expression that has the potential to selectively inhibit the activity of any human gene. As evidenced by Kim and Rossi's review published in March 2007 in *Nature Reviews Genetics*, it is believed that this inhibition may potentially treat human diseases by silencing genes that lead to disease.

In January 2007, CytRx transferred to RXi substantially all of CytRx's RNAi-related technologies and assets in exchange for shares of common stock of RXi, and RXi began operating on a stand-alone basis for the purpose of accelerating the discovery of RNAi therapeutics previously sponsored by CytRx. RXi's initial focus is on developing RNAi-based product candidates for treating neurological and metabolic disorders and cancer.

Until recently, CytRx owned approximately 85% of the outstanding shares of common stock of RXi and CytRx's consolidated financial statements, including CytRx's consolidated financial statements as of and for the year ended December 31, 2007 included in Appendix E to this proxy statement/prospectus, reflected the consolidated financial condition and results of operations of RXi. On February 14, 2008, CytRx's board of directors declared a dividend, payable to CytRx's stockholders as of March 6, 2008, the record date, of one share of RXi common stock for each approximately 20.05 shares of CytRx's common stock held by such stockholders. The dividend was paid on March 11, 2008. As a result of the dividend, CytRx owned less than a majority of the outstanding shares of RXi common stock and CytRx's financial statements no longer consolidate the financial condition and results of operation of RXi. Instead, CytRx's ongoing investment in RXi is accounted for based on the equity method of accounting as discussed in the CytRx's Management's Discussion and Analysis of Financial Condition and Results of Operations section of this proxy statement/prospectus.

In connection with CytRx's distribution of RXi shares to CytRx's stockholders, RXi became a public reporting company and its common stock was listed for trading on The Nasdaq Capital Market under the symbol **RXII**.

On February 15, 2007, CytRx entered into a letter agreement with RXi and certain of RXi's current stockholders under which RXi agreed to grant to CytRx preemptive rights to acquire any new securities (as defined) that RXi proposes to sell or issue so that CytRx may maintain its percentage ownership in RXi at any time that CytRx owns less than 50% of the outstanding shares of RXi common stock. CytRx's preemptive rights will expire on January 8, 2012 or such earlier time at which CytRx owns less than 10% of RXi's outstanding common stock.

Under this letter agreement, CytRx agreed that it will vote its RXi shares for the election of RXi directors and take other actions to ensure that a majority of the board of directors of RXi are independent of us. CytRx further agreed to approve of actions that may be adopted and recommended by the RXi board of directors to facilitate any future financing by RXi.

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CytRx has no capability to manufacture supplies of any of CytRx's products, and relies on third-party contract manufacturers to produce materials needed for research and clinical trials, including clinical supplies of irovanadine for CytRx's planned Phase II trial. To be commercialized, CytRx's products also must be capable of being manufactured in commercial quantities in compliance with stringent regulatory requirements and at an acceptable cost. CytRx intends to rely on third-party manufacturers to produce commercial quantities of any products for which CytRx is able to obtain marketing approval. CytRx has not commercialized any product, and so has not demonstrated that any of CytRx's product candidates can be manufactured in commercial quantities in accordance with regulatory requirements or at an acceptable cost.

If CytRx's product candidates cannot be manufactured in suitable quantities and in accordance with regulatory standards, CytRx's clinical trials, regulatory approvals and marketing efforts for such products may be delayed. Such delays could adversely affect CytRx's competitive position and CytRx's chances of generating significant recurring revenues. If CytRx's products are not able to be manufactured at an acceptable cost, the commercial success of CytRx's products may be adversely affected.

Patents and Proprietary Technology

CytRx actively seeks patent protection for CytRx's technologies, processes, uses, and ongoing improvements and considers its patents and other intellectual property to be critical to its business. CytRx acquired patents and patent applications, and has filed several new patent applications, in connection with CytRx's molecular chaperone program.

CytRx regularly evaluates the patentability of new inventions and improvements developed by CytRx or CytRx's collaborators, and, whenever appropriate, will endeavor to file United States and international patent applications to protect these new inventions and improvements. CytRx cannot be certain that any of the current pending patent applications it has filed or licensed, or any new patent applications CytRx may file or license, will ever be issued in the United States or any other country. There also is no assurance that any issued patents will be effective to prevent others from using CytRx's products or processes. It is also possible that any patents issued to CytRx, as well as those CytRx has licensed or may license in the future, may be held invalid or unenforceable by a court, or third parties could obtain patents that CytRx would need to either license or to design around, which CytRx may be unable to do. Current and future competitors may have licensed or filed patent applications or received patents, and may acquire additional patents and proprietary rights relating to molecular chaperone amplification and other small molecule technology, RNAi technology, DNA-based vaccines or other compounds, products or processes that may be competitive with those of CytRx.

In addition to patent protection, CytRx attempts to protect CytRx's proprietary products, processes and other information by relying on trade secrets and non-disclosure agreements with CytRx's employees, consultants and certain other persons who have access to such products, processes and information. Under the agreements, all inventions conceived by employees are CytRx's exclusive property, but there is no assurance that these agreements will afford significant protection against misappropriation or unauthorized disclosure of CytRx's trade secrets and confidential information.

Competition

CytRx is aware of only one drug, Rilutek, which was developed by Aventis Pharma AG, that has been approved by the FDA for the treatment of ALS. Many companies are working to develop pharmaceuticals to treat ALS, including Aeolus Pharmaceuticals, Celgene Corporation, Mitsubishi Tanabe Pharma Corporation, Ono Pharmaceuticals, Trophos SA, Knopp Neurosciences Inc., Faust Pharmaceuticals SA, Oxford BioMedica plc, Phytopharm plc and Teva Pharmaceutical Industries Ltd., as well as RXi. ALS patients often take over-the-counter supplements, including vitamin E, creatine and coenzyme Q10, or drugs such as lithium that are approved for other indications. ALS belongs to a family of neurodegenerative diseases that includes

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Alzheimer's, Parkinson's and Huntington's diseases. Due to similarities between these diseases, a new treatment for one such disease potentially could be useful for treating others. There are many companies producing and developing drugs used to treat neurodegenerative diseases other than ALS, including Amgen, Inc., Biogen Idec, Boehringer Ingelheim, Cephalon, Inc., Ceregene, Inc., Elan Pharmaceuticals, plc, Forest Laboratories, Inc., H. Lundbeck A/S, Phytopharm plc, UCB Group and Wyeth.

Current drug classes used to treat stroke include antiplatelet agents, anticoagulants, salicylates, neuroprotectants and thrombolytic agents. Prescription antiplatelet agents include Aggrenox by Boehringer Ingelheim, Plavix by Sanofi-Aventis and Bristol-Myers Squibb, and Ticlid by Roche Pharmaceuticals. Coumadin by Bristol-Myers Squibb and Jantoven by Upsher-Smith Laboratories are branded forms of warfarin, an anticoagulant. Moreover, salicylates, like aspirin, are commonly used to treat patients after stroke. In Europe, Ferrer Grupo markets the neuroprotectant, Somazina. Activase, also known as tissue plasminogen activator, or t-PA, is a thrombolytic agent marketed by Genentech. Many new drug candidates are in development by pharmaceutical and biotech companies, including GlaxoSmithKline, Indevus Pharmaceuticals, Ipsen, Merck & Co., Neurobiological Technologies, Ono Pharmaceuticals, PAION AG and Wyeth. In addition to drug therapy, companies such as Medtronic and Northstar Neurosciences are developing neurostimulation medical devices to aid in recovery after stroke.

The wound care market is highly competitive, and there are many products available for treating skin wounds, including diabetic foot ulcers. Prescription and over-the-counter products for the prevention and treatment of infections include topical anti-infectives, such as Betadine, silver sulfadiazine, hydrogen peroxide, Dakin's solution and hypochlorous acid, and topical antibiotics, such as Neosporine, Mupirocin and Bacitracin. Skin substitute products include Apligraf, manufactured by Organogenesis, Inc., which is an FDA-cleared product using human dermal and epidermal cells placed on a collagen matrix, for the treatment of both venous stasis and diabetic foot ulcers, and Dermagraft®, produced by Advanced BioHealing, Inc., which uses human derived dermal cells placed on a polyglactin matrix and is FDA cleared to treat diabetic foot ulcers. In addition, a number of companies are working to develop proprietary pharmaceuticals and cell-based therapies to treat diabetic wound healing, including Agennix, Inc., BioSyntech, Inc., CardioVascular BioTherapeutics, Inc., Cardium Therapeutics, Inc., Genentech Inc., KeraCure, Inc., King Pharmaceuticals, Inc., MacroChem Corporation, Oculus Innovative Sciences, Inc., Rovi Pharmaceutical Laboratories, SanuWave, Inc. and Wyeth.

Many companies, including large pharmaceutical and biotechnology firms with financial resources, research and development staffs, and facilities that may be substantially greater than those of CytRx or its strategic partners or licensees, are engaged in the research and development of pharmaceutical products that could compete with CytRx's potential products. To the extent that CytRx seeks to acquire, through license or otherwise, existing or potential new products, CytRx will be competing with numerous other companies, many of which will have substantially greater financial resources, as well as large acquisition and research and development staffs that may give those companies a competitive advantage over CytRx in identifying and evaluating these drug acquisition opportunities. Any products that CytRx acquires will be competing with products marketed by companies that in many cases will have substantially greater marketing resources than CytRx has. The pharmaceutical industry is characterized by rapid technological advances and competitors may develop their products more rapidly and such products may be more effective than those currently under development or that may be developed in the future by CytRx's strategic partners or licensees. Competitive products for a number of the disease indications that CytRx has targeted are currently being marketed by other parties, and additional competitive products are under development and may also include products currently under development that CytRx is not aware of or products that may be developed in the future.

Government Regulation

The United States and other developed countries extensively regulate the preclinical and clinical testing, manufacturing, labeling, storage, record-keeping, advertising, promotion, export, marketing and distribution of drugs and biologic products. The FDA, under the Federal Food, Drug, and Cosmetic Act, the

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Public Health Service Act and other federal statutes and regulations, regulates pharmaceutical and biologic products.

To obtain approval of CytRx's product candidates from the FDA, CytRx must, among other requirements, submit data supporting safety and efficacy for the intended indication as well as detailed information on the manufacture and composition of the product candidate. In most cases, this will require extensive laboratory tests and preclinical and clinical trials. The collection of these data, as well as the preparation of applications for review by the FDA, involves significant time and expense. The FDA also may require post-marketing testing to monitor the safety and efficacy of approved products or place conditions on any approvals that could restrict the therapeutic claims and commercial applications of these products. Regulatory authorities may withdraw product approvals if CytRx fails to comply with regulatory standards or if CytRx encounters problems at any time following initial marketing of CytRx's products.

The first stage of the FDA approval process for a new biologic or drug involves completion of preclinical studies and the submission of the results of these studies to the FDA. This data, together with proposed clinical protocols, manufacturing information, analytical data and other information submitted to the FDA, in an investigational new drug application, or IND, must become effective before human clinical trials may commence. Preclinical studies generally involve FDA regulated laboratory evaluation of product characteristics and animal studies to assess the efficacy and safety of the product candidate.

After the IND becomes effective, a company may commence human clinical trials. These are typically conducted in three sequential phases, but the phases may overlap. Phase I trials consist of testing of the product candidate in a small number of patients or healthy volunteers, primarily for safety at one or more doses. Phase II trials, in addition to safety, evaluate the efficacy of the product candidate in a patient population somewhat larger than Phase I trials. Phase III trials typically involve additional testing for safety and clinical efficacy in an expanded population at multiple test sites. A company must submit to the FDA a clinical protocol, accompanied by the approval of the Institutional Review Boards at the institutions participating in the trials, prior to commencement of each clinical trial.

To obtain FDA marketing authorization, a company must submit to the FDA the results of the preclinical and clinical testing, together with, among other things, detailed information on the manufacture and composition of the product candidate, in the form of a new drug application, or NDA, or, in the case of a biologic, a biologics license application, or BLA.

The amount of time taken by the FDA for approval of an NDA or BLA will depend upon a number of factors, including whether the product candidate has received priority review, the quality of the submission and studies presented, the potential contribution that the compound will make in improving the treatment of the disease in question, and the workload at the FDA.

The FDA may, in some cases, confer upon an investigational product the status of a fast track product. A fast track product is defined as a new drug or biologic intended for the treatment of a serious or life-threatening condition that demonstrates the potential to address unmet medical needs for this condition. The FDA can base approval of an NDA or BLA for a fast track product on an effect on a surrogate endpoint, or on another endpoint that is reasonably likely to predict clinical benefit. If a preliminary review of clinical data suggests that a fast track product may be effective, the FDA may initiate review of entire sections of a marketing application for a fast track product before the sponsor completes the application. The FDA has granted fast track designation and orphan drug status to arimocloamol for the treatment of ALS.

CytRx anticipates that its products will be manufactured by its strategic partners, licensees or other third parties. Before approving a BLA, the FDA will inspect the facilities at which the product is manufactured and will not approve the product unless the manufacturing facilities are in compliance with the FDA's cGMP, which are regulations that govern the manufacture, holding and distribution of a product. Manufacturers of biologics also must comply with the FDA's general biological product standards. CytRx's manufacturers also

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will be subject to regulation under the Occupational Safety and Health Act, the Environmental Protection Act, the Nuclear Energy and Radiation Control Act, the Toxic Substance Control Act and the Resource Conservation and Recovery Act. Following approval, the FDA periodically inspects drug and biologic manufacturing facilities to ensure continued compliance with the good manufacturing practices regulations. CytRx's manufacturers will have to continue to comply with those requirements. Failure to comply with these requirements subjects the manufacturer to possible legal or regulatory action, such as suspension of manufacturing or recall or seizure of product. Adverse patient experiences with the product must be reported to the FDA and could result in the imposition of marketing restrictions through labeling changes or market removal. Product approvals may be withdrawn if compliance with regulatory requirements is not maintained or if problems concerning safety or efficacy of the product occur following approval.

The labeling, advertising, promotion, marketing and distribution of a drug or biologic product also must be in compliance with FDA and Federal Trade Commission requirements which include, among others, standards and regulations for off-label promotion, industry sponsored scientific and educational activities, promotional activities involving the internet, and direct-to-consumer advertising. CytRx also will be subject to a variety of federal, state and local regulations relating to the use, handling, storage and disposal of hazardous materials, including chemicals and radioactive and biological materials. In addition, CytRx will be subject to various laws and regulations governing laboratory practices and the experimental use of animals. In each of these areas, as above, the FDA has broad regulatory and enforcement powers, including the ability to levy fines and civil penalties, suspend or delay issuance of product approvals, seize or recall products, and deny or withdraw approvals.

CytRx will also be subject to a variety of regulations governing clinical trials and sales of CytRx's products outside the United States. Whether or not FDA approval has been obtained, approval of a product candidate by the comparable regulatory authorities of foreign countries and regions must be obtained prior to the commencement of marketing the product in those countries. The approval process varies from one regulatory authority to another and the time may be longer or shorter than that required for FDA approval. In the European Union, Canada and Australia, regulatory requirements and approval processes are similar, in principle, to those in the United States.

Employees

As of June 30, 2008, CytRx had 35 employees, 23 of whom were engaged in research and development activities and 12 of whom were involved in management and administrative operations.

Properties

CytRx's headquarters are located in leased facilities in Los Angeles, California. The lease covers approximately 4,700 square feet of office space and expires in June 2012.

CytRx also leases approximately 10,000 square feet of office and laboratory space in San Diego, California. The lease expires in July 2010, subject to CytRx's option to extend the lease for up to two additional three-year terms. CytRx's headquarters and laboratory facilities are sufficient for CytRx's current purposes.

Legal Proceedings

CytRx is occasionally involved in claims arising in the normal course of business. As of the date of the proxy statement/prospectus, there were no such claims that CytRx expects, individually or in the aggregate, to have a material adverse affect on it.

Table of Contents**CYTRX MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

The following discussion and analysis of CytRx's financial condition and results of operations should be read together with the selected historical financial information of CytRx on page 9 and CytRx's consolidated financial statements and related notes included as Appendix E to this proxy statement/prospectus. This discussion contains forward-looking statements, based on current expectations and related to future events and CytRx's future financial performance, that involve risks and uncertainties. CytRx's actual results may differ materially from those anticipated in these forward-looking statements as a result of many important factors, including those set forth under the captions "Risk Factors" and "Cautionary Statement Concerning Forward-Looking Statements" in this proxy statement/prospectus.

Overview***General***

CytRx is a clinical-stage biopharmaceutical company engaged in developing human therapeutic products based primarily upon CytRx's small-molecule molecular chaperone amplification technology. Molecular chaperone proteins occur normally in human cells and are key components of the body's defenses against potentially toxic mis-folded cellular proteins. Since damaged toxic proteins called aggregates are thought to play a role in many diseases, CytRx believes that amplification of molecular chaperone proteins could have therapeutic efficacy for a broad range of indications. Currently, CytRx is using CytRx's chaperone amplification technology to develop treatments for neurodegenerative disorders and diabetic complications. In addition, CytRx has been applying molecular chaperone technology to the identification of drug candidates for oncology by adapting its proprietary chaperone screening assay to identify inhibitors (rather than amplifiers) of chaperone activity.

Through February 2008, CytRx owned a majority of the outstanding shares of common stock of RXi Pharmaceuticals Corporation, which was founded in April 2006 by CytRx and four researchers in the field of ribonucleic acid interference, or RNAi, including Dr. Craig Mello, recipient of the 2006 Nobel Prize for Medicine for his co-discovery of RNAi. RNAi is a naturally occurring mechanism for the regulation of gene expression that has the potential to selectively inhibit the activity of any human gene. RXi is focused solely on developing and commercializing therapeutic products based upon RNAi technologies for the treatment of human diseases, including neurodegenerative diseases, cancer, type 2 diabetes and obesity.

While RXi was majority-owned, CytRx's consolidated financial statements reflected 100% of the assets and liabilities and results of operations of RXi, with the interests of the minority shareholders of RXi being recorded as minority interests. In March 2008, CytRx distributed to its stockholders approximately 36% of RXi's outstanding shares, which reduced CytRx's ownership to less than 50% of RXi. As a result of the reduced ownership, CytRx began to account for its investment in RXi using the equity method, under which CytRx records only its pro-rata share of the financial results of RXi against its historical basis investment in RXi. For the quarter ended March 31, 2008, the investment in RXi is shown as investment in unconsolidated subsidiary on the condensed consolidated balance sheet and the related earnings are shown as equity in loss of unconsolidated subsidiary on the condensed consolidated statement of operations. Because only a portion of RXi's financial results for March 2008 were recorded by CytRx under the equity method, CytRx's results of operations for the first quarter of 2008 are not directly comparable to results of operations for the same period in 2007. The future results of operations of CytRx also will not be directly comparable to corresponding periods in prior years during which CytRx's financial statements reflected the consolidation of RXi.

In January 2008, the FDA placed a clinical hold on CytRx's Phase IIb clinical efficacy trial of arimoclomol for the treatment of ALS due to concerns relating to previous toxicology studies of arimoclomol in rats. CytRx received a formal determination letter from the FDA in July 2008. In light of the

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ongoing clinical hold, CytRx recently announced plans to conduct additional preclinical toxicology studies of arimoclomol, in development for ALS and stroke recovery, which are expected to take up to one year to complete, before any possible resumption or initiation of clinical trials of arimoclomol. CytRx cannot predict the outcome of those additional animal toxicology studies. Depending on the outcome, CytRx may be:

required to conduct additional toxicology or human studies prior to or in parallel with the resumption of CytRx's clinical trial, which would result in substantial additional expenses and possible significant delays in completing the clinical trial;

required to alter the design including reducing the dosage of arimoclomol, of the clinical trial, which could significantly delay the completion of the trial, increase the cost of the trial, adversely affect CytRx's ability to demonstrate the efficacy of arimoclomol in the trial or cause CytRx to cancel the trial altogether due to one or more of these considerations; or

prohibited by the FDA from resuming CytRx's current planned clinical trial or initiating any other clinical trial of arimoclomol for the treatment of ALS or any other indication due to safety concerns.

CytRx's development of arimoclomol for stroke recovery is subject to similar risks.

CytRx has relied primarily upon proceeds from sales of its equity securities and the exercise of options and warrants, and to a much lesser extent upon payments from strategic partners and licensees, to generate funds needed to finance its business and operations. At March 31, 2008, CytRx had cash, cash equivalents and short-term investments of approximately \$43.5 million. CytRx believes that its current resources will be sufficient to support its currently planned level of operations into the second half of 2009. This estimate is based, in part, upon CytRx's currently projected expenditures for the remainder of 2008 and the first three months of 2009 of approximately \$23.9 million, including approximately \$1.5 million of direct expenditures for CytRx's planned clinical program for arimoclomol for ALS and related studies, approximately \$0.5 million of direct expenditures for its planned clinical program for arimoclomol for stroke recovery and related studies, approximately \$6.1 million of direct expenditures for its planned Phase II clinical trial of iroxanadine for diabetic ulcers, approximately \$7.7 million for the operations of its research laboratory in San Diego, California, and approximately \$8.1 million for other general and administrative expenses. CytRx's projected expenditures are based on CytRx's recently announced plan to conduct additional animal toxicology studies prior to the resumption of its Phase II clinical program for arimoclomol for ALS that currently is on clinical hold by the FDA and prior to any initiation of its Phase II clinical trial for arimoclomol for stroke recovery. Those animal toxicology studies are expected to take approximately one year. If CytRx is required to alter the design of its Phase II clinical trial, including the possible reduction of the dosage of arimoclomol, or is prohibited by the FDA from resuming the current planned clinical trial or initiating any other clinical trial of arimoclomol for the treatment of ALS or stroke recovery at the desired dose, or at all, due to safety concerns, then CytRx's actual expenditures will vary, perhaps significantly, from its current projections. These projections also do not consider the effects of the merger on CytRx's operations and financial condition. However, CytRx will need additional funds to advance any of Innovive's product candidates.

CytRx will be required to obtain additional funding in order to execute its long-term business plans. CytRx does not have commitments from any third parties to provide it with funding, and there is no assurance that additional funding will be available on favorable terms, or at all. If CytRx fails to obtain additional funding when needed, it may not be able to execute its business plans and its business may suffer, which would have a material adverse effect on CytRx's financial position, results of operations and liquidity.

Recent Developments

On June 6, 2008, CytRx entered into the merger agreement with Innovive. Under accounting principles generally accepted in the United States and the regulations of the Securities and Exchange Commission, since Innovive is a development-stage company, it is not considered a business. Accordingly, the merger will be accounted for by CytRx in accordance with Statement of Financial Standard No. 142, *Goodwill and Other Intangible Assets*, for transactions other than a business combination. Management of CytRx has further determined it is not required to include in the proxy statement/prospectus pro forma financial statements of CytRx giving effect to the merger.

The initial merger consideration, together with direct costs incurred to effect the merger, will be allocated to the individual assets acquired, including identifiable intangible assets, and liabilities assumed based on their relative fair values. No goodwill will be recorded. Consolidated financial statements of CytRx issued after the merger will reflect these fair values and will not be restated retroactively to reflect the historical financial position or results of operations of Innovive. CytRx will use a period of time beginning two days before and ending two days after the date that the terms of the acquisition were agreed to and announced in determining the fair value of the CytRx shares to be issued to Innovive stockholders. It is anticipated that CytRx will record a one-time expense for in-process research and development it acquires, as well as the amount, if any, the initial merger consideration paid by CytRx in excess of the fair market values of the acquired assets and liabilities.

Additional merger consideration that is contingent upon certain events, none of which has occurred as of the date of this proxy statement/prospectus, will be excluded from the initial merger consideration.

Table of Contents**Research and Development**

Expenditures for research and development activities related to continuing operations were \$18.8 million, \$9.8 million and \$9.1 million for the years ended December 31, 2007, 2006, and 2005, respectively, with research and development expenses representing approximately 55%, 50% and 58%, respectively, of CytRx's total expenses for these years. For the quarters ended March 31, 2008 and 2007, these expenditures were \$3.2 million and \$4.0 million, respectively, which represented approximately 41.6% and 61.7%, respectively, of CytRx's total expenses for these periods. Research and development expenses are discussed further below in this section under "Critical Accounting Policies and Estimates" and "Results of Operations."

CytRx's currently projected expenditures for the remainder of 2008 and the first three months of 2009 include approximately \$1.5 million of direct expenditures for CytRx's planned clinical program for arimoclomol for ALS and related studies, approximately \$0.5 million of direct expenditures for its planned clinical program for arimoclomol for stroke recovery and related studies, and approximately \$6.1 million of direct expenditures for its planned Phase II clinical trial of iroxanadine for diabetic ulcers. The actual cost of CytRx's clinical programs could differ significantly from CytRx's current projections due to any additional requirements or delays imposed by the FDA in connection with CytRx's planned trials, or if actual costs are higher than current management estimates for other reasons. In the event that actual costs of CytRx's clinical program, or any of CytRx's other ongoing research activities, are significantly higher than CytRx's current estimates, CytRx may be required to significantly modify CytRx's planned level of operations.

There is a risk that any drug discovery and development program may not produce revenue, because of the risks inherent in drug discovery and development. Moreover, there are uncertainties specific to any new field of drug discovery, including CytRx's molecular chaperone amplification technology. The successful development of any product candidate is highly uncertain. CytRx cannot reasonably estimate or know the nature, timing and costs of the efforts necessary to complete the development of, or the period in which material net cash inflows are expected to commence from any product candidate, due to the numerous risks and uncertainties associated with developing drugs, including the uncertainty of:

CytRx's ability to advance product candidates into pre-clinical and clinical trials;

the scope, rate and progress of CytRx's pre-clinical trials and other research and development activities;

the scope, rate of progress and cost of any clinical trials that CytRx may commence;

the cost of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;

future clinical trial results;

the terms and timing of any collaborative, licensing and other arrangements that CytRx may establish;

the cost and timing of regulatory approvals;

the cost and timing of establishing sales, marketing and distribution capabilities;

the cost of establishing clinical and commercial supplies of CytRx's product candidates and any products that CytRx may develop; and

the effect of competing technological and market developments.

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Any failure to complete any stage of the development of CytRx's products in a timely manner could have a material adverse effect on CytRx's financial position, results of operations and liquidity. A discussion of material risks and uncertainties associated with CytRx's business is set forth in the Risk Factors section of this proxy statement/prospectus. This discussion does not consider the effects of the merger on CytRx's operations and financial condition. However, CytRx will need additional funds to advance any of Innovive's product candidates. See Risk Factors Risks Associated with the Merger.

Critical Accounting Policies and Estimates

Management's discussion and analysis of CytRx's financial condition and results of operations are based on CytRx's consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, management evaluates its estimates, including those related to revenue recognition, stock options, impairment of long-lived assets, including finite-lived intangible assets, accrued liabilities and certain expenses. Management bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ materially from these estimates.

CytRx's significant accounting policies are summarized in note 2 of the notes to consolidated financial statements for the year ended December 31, 2007 included as part of Appendix E to this proxy statement/prospectus. CytRx believes the following critical accounting policies are affected by CytRx's more significant judgments and estimates used in the preparation of CytRx's consolidated financial statements:

Revenue Recognition

CytRx's revenues consist of license fees from strategic alliances with pharmaceutical companies as well as service and grant revenues. Service revenues consist of contract research and laboratory consulting. Grant revenues consist of government and private grants.

Monies received for license fees are deferred and recognized ratably over the performance period in accordance with Staff Accounting Bulletin (SAB) No. 104, *Revenue Recognition*. Milestone payments will be recognized upon achievement of the milestone as long as the milestone is deemed substantive and CytRx has no other performance obligations related to the milestone and collectability is reasonably assured, which is generally upon receipt, or recognized upon termination of the agreement and all related obligations. Deferred revenue represents amounts received prior to revenue recognition.

Revenues from contract research, government grants, and consulting fees are recognized over the respective contract periods as the services are performed, provided there is persuasive evidence or an arrangement, the fee is fixed or determinable and collection of the related receivable is reasonably assured. Once all conditions of the grant are met and no contingencies remain outstanding, the revenue is recognized as grant fee revenue and an earned but unbilled revenue receivable is recorded.

In August 2006, CytRx received approximately \$24.3 million in proceeds from the privately funded ALS Charitable Remainder Trust, or ALSCRT, in exchange for the commitment to continue research and development of arimoclomol and other potential treatments for ALS and a one percent royalty in the worldwide sales of arimoclomol for the treatment of ALS. Under the arrangement, CytRx retains the rights to any products or intellectual property funded by the arrangement and the proceeds of the transaction are non-refundable. ALSCRT has no obligation to provide any further funding to CytRx. CytRx has concluded that, due to the research and development components of the transaction, it is properly accounted for under Statement of Financial Accounting Standards, or SFAS, No. 68, *Research and Development Arrangements*.

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Accordingly, CytRx has recorded the value received under the arrangement as deferred service revenue and will recognize service revenue using the proportional performance method of revenue recognition, meaning that service revenue will be recognized on a dollar-for-dollar basis for each dollar of expense incurred for the research and development of arimoclomol and other potential ALS treatments. CytRx believes that this method best approximates the efforts expended related to the services provided. CytRx adjusts its estimates of expense incurred for this research and development on a quarterly basis. For the years ended December 31, 2007 and 2006, CytRx recognized approximately \$7.2 million and \$1.8 million, respectively, of service revenue related to the ALS CRT transaction. Any significant change in ALS related research and development expense in any period from prior periods will affect the recognition of revenue for that period and, consequently, the comparability of revenue from period to period.

Deferred revenue, current portion is the amount of deferred revenue that is expected to be recognized in the next 12 months and is subject to fluctuation based upon management's estimates. Management's estimates include an evaluation of what pre-clinical and clinical trials are necessary, the timing of when trials will be performed and the estimated clinical trial expenses. These estimates are subject to change, which could have a significant effect on the amount and timing of deferred revenues recognized.

Research and Development Expenses

Research and development expenses consist of costs incurred for direct and overhead-related research expenses and are expensed as incurred. Costs to acquire technologies, including licenses, that are utilized in research and development and that have no alternative future use are expensed when incurred. Technology developed for use in CytRx's products is expensed as incurred until technological feasibility has been established.

Clinical Trial Expenses

Clinical trial expenses, which are included in research and development expenses, include obligations resulting from CytRx's contracts with various clinical research organizations in connection with conducting clinical trials for CytRx's product candidates. CytRx recognizes expenses for these activities based on a variety of factors, including actual and estimated labor hours, clinical site initiation activities, patient enrollment rates, estimates of external costs and other activity-based factors. CytRx believes that this method best approximates the efforts expended on a clinical trial with the expenses CytRx records. CytRx adjusts its rate of clinical expense recognition if actual results differ from CytRx's estimates. If CytRx's estimates are incorrect, clinical trial expenses recorded in any particular period could vary.

Stock-based Compensation

CytRx's share-based employee compensation plans are described in note 12 of the notes to consolidated financial statements. Effective January 1, 2006, CytRx adopted the provisions of SFAS 123(R), *Share-Based Payment*. SFAS 123(R), which requires that companies recognize compensation expense associated with stock option grants and other equity instruments to employees in the financial statements. SFAS 123(R) applies to all grants after the effective date and to the unvested portion of stock options outstanding as of the effective date. CytRx adopted SFAS 123(R) using the modified-prospective method and uses the Black-Scholes valuation model for valuing share-based payments. CytRx will continue to account for transactions in which services are received from non-employees in exchange for equity instruments based on the fair value of such services received in accordance with SFAS 123(R), Emerging Issues Task Force Issue No. 96-18 (EITF 96-18), *Accounting for Equity Instruments that are Issued to other than Employees for Acquiring, or in Conjunction with Selling Goods or Services* and EITF 00-18, *Accounting Recognition for Certain Transactions Involving Equity Instruments Granted to Other Than Employees*, as amended.

CytRx's statements of operations as of and for the years ended December 31, 2007 and 2006 reflect the impact of SFAS 123(R). In accordance with the modified prospective transition method, CytRx's results of

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operations for prior periods have not been restated to reflect the impact of SFAS 123(R). Prior to January 1, 2006, CytRx accounted for share-based compensation under the recognition and measurement provisions of Accounting Principles Board No. 25, *Accounting for Stock Issued to Employees* (APB 25), and related interpretations for all awards granted to employees. Under APB 25, when the exercise price of options granted to employees under these plans equals or exceeds the market price of the common stock on the date of grant, no compensation expense is recorded. When the exercise price of options granted to employees under these plans is less than the market price of the common stock on the date of grant, compensation expense is recognized over the vesting period.

Non-employee share-based compensation charges generally are amortized over the vesting period on a straight-line basis. Where option grants to non-employees are immediately vested and have no future performance requirements by the non-employee, the total share-based compensation charge is recorded in the period of the measurement date.

The fair value of each CytRx common stock option grant, and of grants by RXi of RXi common stock options, is estimated using the Black-Scholes option pricing model, which uses certain assumptions related to risk-free interest rates, expected volatility, expected life of the common stock options and future dividends. Compensation expense is recorded based upon the value derived from the Black-Scholes option pricing model, based on an expected forfeiture rate that is adjusted for actual experience. If CytRx's Black-Scholes option pricing model assumptions or CytRx's actual or estimated forfeiture rates are different in the future, it could materially affect compensation expense recorded in future periods.

Impairment of Long-Lived Assets

CytRx reviews long-lived assets, including finite-lived intangible assets, for impairment on an annual basis, as of December 31, or on an interim basis if an event occurs that might reduce the fair value of such assets below their carrying values. An impairment loss would be recognized based on the difference between the carrying value of the asset and its estimated fair value, which would be determined based on either discounted future cash flows or other appropriate fair value methods. If CytRx's estimates used in the determination of either discounted future cash flows or other appropriate fair value methods are not accurate as compared to actual future results, CytRx may be required to record an impairment charge.

Earnings Per Share

Basic and diluted loss per common share is computed based on the weighted-average number of common shares outstanding. Common share equivalents (which consist of options and warrants) are excluded from the computation of diluted loss per share where the effect would be antidilutive. Common share equivalents which could potentially dilute basic earnings per share in the future, and which were excluded from the computation of diluted loss per share, totaled approximately 17.1 million shares, 30.2 million shares and 24.7 million shares at December 31, 2007, 2006 and 2005, respectively, and 16.2 million shares and 22.7 million shares at March 31, 2008 and 2007, respectively.

In connection with CytRx's adjustment to the exercise terms of certain outstanding warrants to purchase common stock on March 11, 2008, March 2, 2006 and January 20, 2005, CytRx recorded deemed dividends of \$757,000, \$488,000 and \$1.1 million, respectively. These deemed dividends are reflected as an adjustment to net loss for the first quarter of 2008, the first quarter of 2006 and the year ended 2005 to arrive at net loss applicable to common stockholders on the consolidated statement of operations and for purposes of calculating basic and diluted earnings per shares.

Table of Contents**Quarterly Financial Data**

The following table sets forth unaudited consolidated statements of operations data for each quarter during CytRx's most recent two fiscal years. This quarterly information has been derived from CytRx's unaudited consolidated financial statements and, in the opinion of management, includes all adjustments, consisting only of normal recurring adjustments, necessary for a fair presentation of the information for the periods covered. The quarterly financial data should be read in conjunction with CytRx's consolidated financial statements and related notes. The operating results for any quarter are not necessarily indicative of the operating results for any future period.

	Quarters Ended			
	March 31	June 30	September 30	December 31
	(In thousands, except per share data)			
2007				
Total revenues	\$ 1,563	\$ 2,371	\$ 2,046	\$ 1,479
Net loss	(4,546)	(6,285)	(4,597)	(6,462)
Deemed dividend for anti-dilution adjustments made to outstanding common stock warrants				
Net loss applicable to common stockholders	\$ (4,546)	\$ (6,285)	\$ (4,597)	\$ (6,462)
Basic and diluted loss per share applicable to common stock	\$ (0.06)	\$ (0.07)	\$ (0.05)	\$ (0.07)
2006				
Total revenues	\$ 61	\$	\$ 776	\$ 1,229
Net loss	(4,166)	(5,465)	(2,972)	(4,148)
Deemed dividend for anti-dilution adjustments made to outstanding common stock warrants	(488)			
Net loss applicable to common stockholders	\$ (4,654)	\$ (5,465)	\$ (2,972)	\$ (4,148)
Basic and diluted loss per share applicable to common stock	\$ (0.07)	\$ (0.08)	\$ (0.04)	\$ (0.06)

Quarterly and yearly loss per share amounts are computed independently of each other. Therefore, the sum of the per-share amounts for the quarters may not equal the per-share amounts for the year. In 2006, CytRx adopted SFAS 123(R), and in 2007 and 2006 CytRx incurred \$2.7 million and \$1.2 million, respectively, in employee non-cash compensation expenses. No corresponding expense was recorded in 2005.

In connection with CytRx's adjustment to the exercise terms of certain outstanding warrants to purchase common stock on March 2, 2006 and on January 20, 2005, CytRx recorded deemed dividends of \$488,000 and \$1.1 million, respectively. These deemed dividends are reflected as an adjustment to net loss for the first quarter of 2006 and the year ended 2005 to arrive at net loss applicable to common stockholders on the consolidated statements of operations and for purposes of calculating basic and diluted earnings per share.

Fourth Quarter Adjustment

During the fourth quarter of 2007, CytRx recorded adjustments for (i) additional compensation expense of \$236,000 related to previously granted non-employee stock options, (ii) additional compensation expense of \$350,000 related to stock options previously granted to directors and (iii) additional general and administrative expense of \$192,000 related to legal fees rendered during the third quarter. Management concluded the effect of these

adjustments was not material to any previously reported quarterly period.

Liquidity and Capital Resources

General

CytRx has relied primarily upon proceeds from sales of its equity securities and the exercise of options and warrants, and to a much lesser extent upon payments from strategic partners and licensees, to

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generate funds needed to finance its business and operations. At March 31, 2008, CytRx had cash, cash equivalents and short-term investments of approximately \$43.5 million. CytRx believes that its current resources will be sufficient to support its currently planned level of operations into the second half of 2009. This estimate is based, in part, upon CytRx's currently projected expenditures for the remainder of 2008 and the first three months of 2009 of approximately \$23.9 million, including approximately \$1.5 million of direct expenditures for CytRx's planned clinical program for arimoclomol for ALS and related studies, approximately \$0.5 million of direct expenditures for its planned clinical program for arimoclomol for stroke recovery and related studies, approximately \$6.1 million of direct expenditures for its planned Phase II clinical trial of irovanadine for diabetic ulcers, approximately \$7.7 million for the operations of its research laboratory in San Diego, California, and approximately \$8.1 million for other general and administrative expenses. CytRx's projected expenditures are based on CytRx's recently announced plan to conduct additional animal toxicology studies prior to the resumption of its Phase II clinical program for arimoclomol for ALS that currently is on clinical hold by the FDA and prior to any initiation of its Phase II clinical trial for arimoclomol for stroke recovery. Those animal toxicology studies are expected to take approximately one year. If CytRx is required to alter the design of its Phase II clinical trial, including the possible reduction of the dosage of arimoclomol, or is prohibited by the FDA from resuming the current planned clinical trial or initiating any other clinical trial of arimoclomol for the treatment of ALS or stroke recovery at the desired dose, or at all, due to safety concerns, then CytRx's actual expenditures will vary, perhaps significantly from its projections.

CytRx has no significant revenue, and expects to have no significant revenue and to continue to incur significant losses over the next several years. CytRx's net losses may increase from current levels primarily due to expenses related to its ongoing and planned clinical trials, research and development programs, possible technology acquisitions, and other general corporate activities. In the event that actual costs of CytRx's ongoing and planned activities are significantly higher than its current estimates, CytRx may be required to significantly modify its planned level of operations.

In the future, CytRx will be dependent on obtaining financing from third parties in order to maintain its operations. CytRx cannot assure that additional funding will be available on satisfactory terms, or at all. If CytRx fails to obtain additional funding when needed in the future, it would be forced to scale back, or terminate, its operations, or to seek to merge with or to be acquired by another company.

Three Months Ended March 31, 2008 and 2007

CytRx's net loss, which includes non-cash charges relating to (1) common stock, stock option and warrants issued for services and (2) expenses related to employee stock options, increased by approximately \$0.8 million from the quarter ended March 31, 2007 to the quarter ended March 31, 2008. This increase was due to several factors, including an additional \$0.9 million of professional and consulting fees associated with ongoing compliance with the Sarbanes-Oxley Act and professional fees and other costs related to RXi's registration statement filed with respect to CytRx's distribution of shares of RXi common stock to CytRx stockholders in March 2008. Research and development expenses decreased by approximately \$0.5 million, principally because RXi's expenses for the month of March were excluded. CytRx's total expenses were partially offset by an increase of \$0.6 million in service revenue.

In the three-month period ended March 31, 2008, \$0.6 million of cash was used in investing activities, compared to \$3,000 used in the same period in 2007. The 2008 period included \$10.0 million of funds provided by RXi's short-term investments to cash equivalents. However, RXi's cash of \$10.4 million (inclusive of this \$10.0 million) is no longer available to CytRx due to the partial distribution of RXi shares. The remainder of the investing activity for both the 2008 and 2007 periods related primarily to cash used for the purchase of equipment. CytRx manages its cash, cash equivalents and short-term investments interchangeably, and at the present time anticipates no significant changes to its current holdings in cash equivalents. CytRx expects capital spending to continue due to additional laboratory equipment necessary for its San Diego, California, laboratory.

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Cash provided by financing activities in the three months ended March 31, 2008 and 2007 was \$0.9 million and \$11.1 million, respectively, which consisted almost exclusively of funds received from the exercise of stock options and warrants.

CytRx is evaluating other potential future sources of funding, as it does not currently have commitments from any third parties to provide any funding. The results of CytRx's technology licensing efforts and the actual proceeds of any fund-raising activities will determine its ongoing ability to operate as a going concern. CytRx's ability to obtain future funding through joint ventures, product licensing arrangements, royalty sales, equity financings, gifts, and grants or otherwise is subject to market conditions and its ability to identify parties that are willing and able to enter into such arrangements on terms that are satisfactory to CytRx. Depending upon the outcome of its fundraising efforts, the accompanying consolidated financial information may not necessarily be indicative of CytRx's future operating results or future financial condition.

CytRx expects to incur significant losses for the foreseeable future, and there can be no assurance that CytRx will become profitable. If CytRx becomes profitable, it may not be able to sustain that profitability.

Discussion of Operating, Investing and Financing Activities***Three Months Ended March 31, 2008 and 2007***

Net loss for the three-month period ended March 31, 2008 was \$5.4 million, and cash used for operations for that period was \$7.3 million. Major adjustments to reconcile net loss to net cash used in operating activities included \$0.6 million of employee stock option expense, offset by a net change in assets and liabilities of \$2.9 million. For the three-month period ended March 31, 2007, net loss was \$4.5 million, and cash used for operations for that period was \$5.1 million. Major adjustments to reconcile net loss to net cash used in operating activities included \$1.1 million in stock option and warrant expense, offset by a net change in assets and liabilities of \$0.5 million.

In the three-month period ended March 31, 2008, there was \$0.6 million of cash used in investing activities, compared to \$3,000 used in the respective 2007 period. The 2008 period included \$10.0 million of funds provided by RXi converting short-term investments to cash equivalents. However, RXi's cash of \$10.4 million (inclusive of this \$10.0 million) is no longer available to CytRx due to the deconsolidation. The remainder of the investing activity for both the 2008 and 2007 periods primarily related to cash used for the purchase of equipment.

Cash provided by financing activities in the three months ended March 31, 2008 and 2007 was \$0.9 million and \$11.1 million, respectively, which consisted almost exclusively of funds received from the exercise of stock options and warrants.

Three Years Ended December 31, 2007, 2006 and 2005

Net loss for the year ended December 31, 2007 was \$21.9 million, and cash used for operating activities for that period was \$22.4 million. The net loss for the year reflects \$7.2 million of non-cash revenue recognized under the 2006 agreement with ALSCRT and \$3.5 million for stock option and warrant expense.

Net loss for the year ended December 31, 2006 was \$16.8 million, and cash provided from operating activities for that period was \$9.4 million. The cash provided from operating activities includes net proceeds of \$24.3 million received from ALSCRT reflected in August 2006 in connection with the sale of a one percent royalty interest in CytRx's worldwide sales of arimoclomol for ALS. Reflected in the net loss of \$16.8 million is \$1.8 million of revenue recognized in 2006 in connection with that sale. The remaining \$22.5 million of the net proceeds from that sale were recorded as deferred revenues. Other non-cash items included in CytRx's net loss necessary to reconcile cash provided from operating activities include \$1.7 million in stock option expense related to options granted to employees and consultants, of which \$1.2 million of expenses for employee

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options was recorded under SFAS 123(R), which CytRx adopted in 2006. Accordingly, no corresponding amount was recorded in earlier periods.

Net loss for the year ended December 31, 2005 was \$15.1 million, which resulted in net cash used in operating activities of \$14.5 million. Adjustments to reconcile net loss to net cash used in operating activities for the year ended December 31, 2005 were primarily \$586,000 of stock option expense related to options granted to consultants, as well as \$217,000 of depreciation and amortization, which was substantially offset by a net change in assets and liabilities of \$210,000.

For the year ended December 31, 2007, \$11.1 million was used in investing activities. Of this amount, RXi used \$9.8 million for the purchase of short-term investments. The remaining \$1.2 million was used for the purchase of equipment and furnishings, primarily associated with equipping CytRx's San Diego laboratory. For the year ended December 31, 2006, an immaterial amount of cash was used in investing activities. For the year ended December 31, 2005, CytRx redeemed an approximately \$1.0 million certificate of deposit. Other investing activities consisted primarily of the purchase of small amounts of computers and laboratory equipment.

Cash provided by financing activities for the year ended December 31, 2007 was \$53.5 million compared to \$12.8 million and \$19.8 million in the years ended December 31, 2006 and 2005, respectively. During 2007, CytRx raised \$34.2 million in a private placement of CytRx's common stock and an additional \$18.8 million from the exercise of previously outstanding stock options and warrants. During 2006, CytRx raised \$12.4 million through a private placement of CytRx's common stock and an additional \$0.4 million from the exercise of stock options and warrants. During the year ended December 31, 2005, CytRx raised \$19.6 million through a private placement of common stock.

Contractual Obligations

CytRx has in the past acquired assets still in development pursuant to arrangements with third parties that require milestone payments or royalty payments to the third party contingent upon the occurrence of certain future events linked to the progress or success of the product development efforts. Milestone payments may be contingent upon the successful achievement of an important point in the development life cycle of the product such as approval of the product for marketing by a regulatory agency. CytRx also may have to make royalty payments based upon a percentage of the sales of the product in the event that regulatory approval for marketing is obtained. These milestone payments may be material. Because of the contingent nature of these payments, however, they are not included in the table of contractual obligations.

As a result of RXi's separation from CytRx in March 2008, each of CytRx and RXi are responsible for their respective future contractual obligations. Accordingly, the following table omits the contractual obligations of RXi, including obligations under agreements assigned and contributed to RXi by CytRx for which CytRx remains secondarily liable.

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CytRx's current contractual obligations that will require future cash payments are as follows:

	Non-Cancelable			Cancelable		Subtotal	Total
	Operating Leases	Employment Agreements	Subtotal	Research and Development (In thousands)	License Agreements		
	(1)	(2)		(3)			
2008	\$ 446	\$ 900	\$ 1,346	\$ 4,035	\$	\$ 4,035	\$ 5,381
2009	236	650	886	3,279		3,279	4,165
2010	145		145	3,045		3,045	3,190
2011	11		11	2,188		2,188	2,199
2012 and thereafter				681		681	681
Total	\$ 838	\$ 1,550	\$ 2,388	\$ 13,228	\$	\$ 13,228	\$ 15,616

(1) Operating lease obligations are primarily facility lease related obligations, as well as equipment and software lease obligations with third party vendors.

(2) Employment agreement obligations include management contracts, as well as scientific advisory board member compensation agreements. Certain agreements, which have been revised from time to time, provide

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