CYTRX CORP
Form S-3
November 23, 2007

As filed with the Securities and Exchange Commission on November 23, 2007
Reg. No. _____

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

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

Delaware	**58-1642750**
(State or other jurisdiction of incorporation or organization)	**(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
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 a copy to:

Benjamin S. Levin, Esq.	**Sanford J. Hillsberg, Esq.**
CytRx Corporation	**Dale E. Short, Esq.**
11726 San Vicente Boulevard,	**Troy & Gould Professional Corporation**
Suite 650	**1801 Century Park East, Suite 1600, Los Angeles, California 90067**
Los Angeles, California 90049	**Fax: (310) 201-4746**
Fax: (310) 826-6139	

Approximate date of commencement of proposed sale to public: As soon as practicable after this Registration Statement becomes effective.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. o

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. þ

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

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

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. o

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. o

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Proposed maximum aggregate offering price	Amount of registration fee
Common Stock, par value $.001 per share(1)	$100,000,000 (2)	$ 3,070

(1) Each share of common stock will be accompanied by one Series A Junior Participating Preferred Stock Purchase Right that trades with the common stock. The value, if any, attributable to this right is reflected in the market price of common stock. Prior to the occurrence of certain events, none of which has occurred as of the date of this registration statement, the rights will not be exercisable or evidenced separately from

the common stock.

(2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act of 1933.

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.

The information in this prospectus is not complete and may be changed. These shares may not be sold until the registration statement filed with the Securities and Exchange Commission becomes effective. This prospectus is not an offer to sell these shares, and it is not a solicitation of an offer to buy these shares, in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, NOVEMBER 23, 2007

PROSPECTUS

CYTRX CORPORATION

$100,000,000

Common Stock

We may offer and sell from time to time up to $100,000,000 of shares of our common stock in amounts, at prices and on terms that we will decide at the time of the offering. Each of the shares is accompanied by one Series A Junior Participating Preferred Stock Purchase Right that trades with our common stock.

We will provide the specific terms of these offers and sales in supplements to this prospectus. This prospectus may not be used to sell common stock unless accompanied by a prospectus supplement. You should read this prospectus and the supplement carefully before you invest. We may offer common stock directly to investors or through agents, underwriters or dealers. If any agents, underwriters or dealers are involved in the sale of any of our common stock, their names and any applicable purchase prices, fees, commissions or discount arrangements will be set forth in the prospectus supplement.

Our common stock is traded on the Nasdaq Capital Market under the symbol CYTR. On November 21, 2007, the last sale price of our common stock as reported on the Nasdaq Capital Market was $3.19.

An investment in our shares involves a high degree of risk. Before purchasing any shares, you should consider carefully the risks referred to under Risk Factors on page 13 in this Prospectus and in the prospectus supplement.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED THESE SECURITIES OR DETERMINED THAT THIS PROSPECTUS IS COMPLETE OR ACCURATE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is _____, 2007

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement utilizing the shelf registration process that we filed with the Securities and Exchange Commission, or the SEC, to permit us to offer and sell the shares described in this prospectus in one or more transactions. The plan of distribution of the shares is described in this prospectus under the heading Plan of Distribution.

As permitted by the rules and regulations of the SEC, the registration statement filed by us includes additional information not contained in this prospectus. You may read the registration statement and the other reports we file with the SEC at the SEC s web site or at the SEC s offices described below under the heading Where You Can Find Additional Information.

This prospectus provides you with a general description of the shares we may offer. Each time shares are sold, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and the prospectus supplement, together with additional information described in this prospectus under the heading Where You Can Find More Information.

You should rely only on the information provided in this prospectus and in the prospectus supplement, including any information incorporated by reference. For more details on information incorporated herein by reference, you should review the discussion contained under the heading Incorporation of Information Filed With the SEC. We have not authorized anyone to provide you with information different from that contained or incorporated by reference in this prospectus and in the prospectus supplement. We are offering the securities only in jurisdictions where offers are permitted. You should not assume that the information in this prospectus or the prospectus supplement is accurate at any date other than the date indicated on the cover page of these documents.

In this prospectus, we sometimes refer to CytRx Corporation as CytRx and to our majority-owned subsidiary RXi Pharmaceuticals Corporation as RXi. References in this prospectus and the prospectus supplement to the company, we, us or our refer to CytRx, alone, unless the context suggests otherwise.

DESCRIPTION OF OUR BUSINESS

General

CytRx is a biopharmaceutical research and development company engaged in developing human therapeutic products based primarily upon our small-molecule molecular chaperone amplification technology. We have completed a three-month Phase IIa clinical trial and six-month open-label trial extension for that trial for our lead small-molecule product candidate, arimoclomol, for the treatment of amyotrophic lateral sclerosis, which is commonly known as ALS, or Lou Gehrig s disease. Arimoclomol for the treatment of ALS has received Orphan Drug and Fast Track designation from the U.S. Food and Drug Administration, or FDA, and orphan medicinal product status from the European Medicines Agency. We plan to initiate a Phase IIb efficacy trial of arimoclomol for this indication before the end of 2007. Based on preliminary discussions with the FDA, we plan to conduct a second efficacy clinical trial of arimoclomol for ALS, possibly in parallel with the upcoming Phase IIb trial, to provide additional efficacy data to support a possible approval decision by the FDA. Subject to FDA clearance, we plan to commence in the first half of 2008 a Phase II clinical trial for arimoclomol in stroke recovery and a Phase II clinical trial of our next drug candidate, iroxanadine, for diabetic ulcers. We recently opened a research and development facility in San Diego, California, to provide us with a dedicated laboratory to accelerate our molecular chaperone drug development programs.

We have relied primarily upon proceeds from sales of our equity securities and the exercise of options and warrants and, to a much lesser extent, upon payments from our strategic partners and licensees, to generate funds needed to finance our business and operations.

In August 2006, we received proceeds of approximately $24.3 million from the privately funded ALS Charitable Remainder Trust, or ALSCRT, in exchange for our commitment to continue research and development of arimoclomol and other potential treatments for ALS and our sale to the ALSCRT of a one-percent royalty in worldwide sales of arimoclomol. We retain all rights to any developments funded under the arrangement with the ALSCRT. The ALSCRT has no obligation to provide us with any further funding.

Separation of RXi Pharmaceuticals Corporation

Prior to 2007, we also were engaged directly in developing therapeutic products based upon ribonucleic acid interference, or RNAi, which has the potential to effectively treat a broad array of diseases by interfering with (sometimes referred to as silencing) the expression of targeted disease-associated genes. In order to fully realize the potential value of our RNAi technologies, in January 2007 we transferred to RXi Pharmaceuticals Corporation, our majority-owned subsidiary, substantially all of our RNAi-related technologies and assets in exchange for common stock of RXi. RXi is dedicated to developing and commercializing therapeutic products based upon RNAi technologies for the treatment of human diseases, with an initial focus on neurodegenerative diseases, cancer, type 2 diabetes and obesity. In furtherance of our strategy for RXi, we announced earlier this year our plan to distribute to our stockholders shares of RXi common stock constituting approximately 36% of the outstanding RXi shares.

On October 30, 2007, RXi filed with the Securities and Exchange Commission a registration statement on Form S-1 to register the shares of RXi common stock that will be distributed to CytRx stockholders. The registration statement filed by RXi also covers shares of RXi common stock that will be awarded by us to some of our directors, officers and other employees. Following the distribution and award transactions, we will own approximately 6,212,861 shares of RXi common stock, or approximately 49% of the outstanding RXi shares, all of which have been registered for resale by us pursuant to the registration statement filed by RXi.

Our board of directors believes that the partial distribution to CytRx stockholders of our RXi shares will:

Allow RXi direct access to capital markets to finance its RNAi drug development activities;

Establish RXi as one of the leading companies dedicated to developing proprietary RNAi therapeutics and enhance RXi s ability to compete with other such companies;

Allow our management and management of RXi to pursue their own separate business strategies and strategic relationships based on their specific technologies and assets;

Enhance the ability of CytRx and RXi to attract advisors and collaborators who are leaders in the particular fields of research and development being pursued by the separate companies, including collaborators who may be competitors of the other company;

Facilitate acquisitions, joint ventures and partnerships by CytRx and RXi with other companies focusing on the same or complementary technologies;

Provide CytRx stockholders with a direct ownership interest in RXi in addition to the indirect interest in us that they will have as CytRx stockholders. Our board of directors believes that some investors prefer to invest in companies focused on particular technologies such as molecular chaperone technologies or RNAi, and that there may be greater collective investment demand for the publicly traded shares of CytRx and RXi, separately, than for our shares alone. The distribution also is intended to enhance public disclosures regarding us and RXi and improve investor understanding of the companies respective technologies and businesses; and

Allow for common stock options and other equity securities in RXi with a value related directly to RXi s own drug development efforts and the performance of its business. Such equity securities will enable RXi to provide incentives for its management and other key employees that are directly related to the market performance of RXi s publicly traded shares and improve RXi s ability to attract, retain and motivate additional qualified personnel.

The distribution of RXi shares will be made to CytRx stockholders as of the record date for the distribution, which is expected to be ten days after the RXi registration statement is declared effective by the Securities and Exchange Commission. The distribution ratio has not yet been established.

We will recognize a taxable gain on the distribution of shares of RXi common stock in an amount equal to the excess of the fair market value of the stock distributed over our basis. This taxable gain will be included in determining whether we have current year earnings and profits. Although we will ascribe a value to RXi shares in the distribution for tax purposes, our valuation will not be binding on the Internal Revenue Service or any state taxation agency. These taxing authorities could ascribe a higher valuation to RXi shares, particularly if RXi s stock trades at prices significantly above the value ascribed by CytRx in the period immediately following the distribution. We expect that the distribution of RXi shares also will be taxable to holders of CytRx common stock.

The distribution by us of the RXi shares will be made only by means of the prospectus contained in the registration statement filed by RXi with the Securities and Exchange Commission. This prospectus does not constitute an offer to sell or the solicitation of an offer to buy any RXi shares.

Molecular Chaperone Co-Induction Platform

The synthesis of proteins is a normal part of essential human cell activity. Proteins are linear chains of amino acids. In order to function normally in a cell, these proteins must fold into particular three-dimensional shapes. During stressful conditions such as certain disease states, proteins can fold improperly, resulting in aggregation of protein that can be toxic to the cell. 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.

In nature, the cell has developed chaperone proteins to deal with these potentially toxic mis-folded proteins. Chaperones are a key component of the human body s cellular protection, maintenance and repair mechanism. They help to ensure that newly synthesized proteins are complete, situated correctly within the cell s structure and correctly folded. Molecular chaperones detect proteins that are mis-folded, and have the ability to refold those proteins into the appropriate, non-toxic shape. If the protein is so badly mis-folded that it cannot be repaired, the molecular chaperones also have the ability to tag the toxic protein for destruction by the cell. This tag, called ubiquitin, directs the mis-folded protein to a cellular apparatus called the proteasome, whose function is to degrade the protein into its constituent amino acids for recycling within the human body.

A core element of the cell s stress-management techniques is known as the heat shock response. Although this response was so-named because it was initially discovered by subjecting cells to heat stress, it is now known that the heat shock response is induced by a variety of physical and chemical stresses. As a cell comes under stress, proteins begin to mis-fold into toxic shapes. The heat shock response, now more commonly referred to as the stress response, increases the synthesis of molecular chaperones that then repair or degrade the mis-folded proteins.

The stress response can be an important mechanism for cellular survival during certain acute physical stresses. For instance, prior induction of the stress response can protect tissue culture cells from heat-induced cell death. It appears, however, that the constant stress that occurs as a result of chronic disease dulls the stress response and erodes the effectiveness of this mechanism. For instance, although the stress response is slightly induced in the motor neurons of mice in an ALS model, the level of expression is apparently insufficient to repair the damage and the mice still die from the disease.

We believe that by boosting the stress response to higher levels, the progression of chronic diseases such as ALS may be slowed, halted or perhaps even reversed. In test tube experiments, mammalian cells engineered to have increased amounts of molecular chaperones have been shown to be resistant to a variety of otherwise lethal stresses. In animal studies, genetically engineered mice with increased amounts of a molecular chaperone had improved heart function after an experimental heart attack. Increased molecular chaperone amounts also significantly increased the lifespan of mice with a disease similar to ALS, called spinal and bulbar muscular atrophy. We believe that these scientific studies support the possibility that drugs such as arimoclomol may be capable of boosting the stress response in humans.

Among our assets are several drug candidates whose mechanism of action is believed to be the co-induction of the stress response; meaning that they amplify the production of molecular chaperone proteins that are already activated by disease-induced cellular stress, but do not seem to activate the stress response by themselves. In doing so, the drug candidates may selectively amplify molecular chaperone proteins specifically in diseased tissue, which may minimize potential drug side-effects. If confirmed, this amplification of the cell s own fundamental protective mechanism may have powerful therapeutic and prophylactic potential in a broad array of medical applications.

We believe that our molecular chaperone co-induction drug candidates can potentially improve the cell s natural ability to resist the toxic effects of protein mis-folding caused by both acute and chronic diseases. These orally-available small-molecule drug candidates may accomplish some of the same therapeutic goals that RXi is pursuing based upon RNAi, but would do so by the mechanism of repairing or degrading the offending proteins, instead of preventing their synthesis by degrading their corresponding messenger RNA, or mRNAs. Since the ability to recognize mis-folded proteins is an intrinsic feature of the amplified molecular chaperones, our molecular chaperone therapy may not require identifying the actual molecular target of the stress-induced damage. As a result, these product candidates may have broader therapeutic utility for the removal of damaged proteins compared to that of RNAi, which requires identifying the actual mis-folded proteins.

We are not aware of another pharmaceutical company engaged in developing small-molecule amplifiers of the stress response chaperones. Some potential drug candidates have been reported in scientific

papers as activating molecular chaperone expression, but they appear to activate the stress response in all cells rather than to amplify the body s own protective mechanisms that are activated only in stressed or diseased cells.

Product Development

ALS Clinical Trials

We are pursuing the development of our lead small-molecule product candidate, arimoclomol, for the treatment of ALS. ALS is a debilitating disease. According to the ALS Survival Guide, 50% of ALS patients die within 18 months of diagnosis and 80% die within five years of diagnosis. According to the ALS Association, in the United States, alone, approximately 30,000 people are living with ALS and nearly 6,000 new cases are diagnosed each year. Worldwide, approximately 120,000 people are living with ALS.

In July 2006, we announced completion of the initial Phase II clinical trial for arimoclomol for ALS, which we refer to as the Phase IIa trial. The Phase IIa trial was a double-blind, controlled study of approximately 80 ALS patients enrolled at ten clinical centers across the U.S. Participants in the study were administered either a placebo in the form of a capsule without a drug, or one of three dosage levels of arimoclomol capsules, three times daily for a period of twelve 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 surrogate markers, the revised ALS Functional Rating Scale, or ALSFRS-R, which is used to determine patients overall functional capacity and independence in 13 functional activities, and vital capacity, an assessment of lung capacity. The trial was designed to be able to detect only extreme responses in these two categories. We extended the initial Phase IIa trial on an open-label basis, meaning that the medication was no longer blinded to the patients or their doctors, in order to provide additional data regarding safety and tolerability. In the extended trial, approximately 70 patients who participated in the initial Phase IIa study received arimoclomol at the highest investigative dose (100 mg, three times daily) for up to an additional six months.

The results from our Phase IIa trial announced in September 2006 indicated that arimoclomol was safe and well tolerated by ALS patients even at the highest administered dose. Importantly, arimoclomol also was present in patients cerebral spinal fluid, demonstrating that it passed the so-called blood:brain barrier. As expected from the small size and short duration of the Phase IIa trial, no statistically significant effects in disease progression were observed. However, there was a trend toward slower disease progression observed in the highest dosage group. Results from the six-month open-label extension were announced in June 2007. In the absence of placebo control, we chose to compare the open-label clinical trial results with the results from untreated placebo patients in a recently-published clinical trial that enrolled patients with similar characteristics. While difficult to draw definitive conclusions without a concurrent placebo control group, there was an apparent trend toward a slower decline in every disease progression marker in the arimoclomol open-label clinical trial compared with the historical placebo control. In the trial, we observed a decrease in the rate of decline of 21% for ALSFRS-R, 8.0% for vital capacity, 23% for total body weight and 20% for body mass index when compared with that historical control.

The favorable safety and tolerability profile observed for arimoclomol in our Phase IIa ALS trial, open-label extension, and previous and recent animal toxicology results suggested that we may be able to safely increase the dose of arimoclomol without causing significant side effects. In June 2007, we announced the results of a multiple ascending-dose study indicating 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 over a seven-day period. We are presently conducting a follow-up clinical trial in healthy volunteers to provide longer-term safety and tolerability information at a dosage of 400 mg three times daily. We expect to announce the results of that safety study prior to the end of 2007.

Based on our recent clinical and preclinical results, we plan to proceed with a 400 mg dose of arimoclomol three times daily in our upcoming Phase II trial, which we refer to as the Phase IIb efficacy trial,

which will be designed to detect more subtle efficacy responses than our previous arimoclomol clinical trials. We have entered into with Pharmaceutical Research Associates, or PRA, a Master Agreement for Clinical Trials Management Services under which PRA will provide clinical research services in connection with the design, management and conduct of both the multiple ascending-dose study and the Phase IIb trial. The Phase IIb efficacy trial is still in the planning stages and will be subject to FDA clearance. At present, however, we expect it to include approximately 400 ALS patients recruited from 30 to 35 clinical sites and to require approximately 18 months after initiation to complete. Our agreement with PRA is part of our current business plan to pursue our product development efforts primarily by contracting with clinical research companies and other third parties.

Based on preliminary discussions with the FDA, we also plan to conduct a second efficacy clinical trial for ALS, possibly in parallel with the upcoming Phase IIb trial, to provide additional efficacy data to support a possible approval decision by the FDA.

Stroke Recovery

In April 2007, we announced data indicating that arimoclomol improved functional recovery in experimental animal models of stroke, even when initiation of the drug treatment was delayed as long as 48 hours after stroke. We plan to commence a Phase II clinical trial for arimoclomol in stroke recovery in the first half of 2008, subject to FDA clearance.

Obesity and Type 2 Diabetes

Obesity and type 2 diabetes also are major health problems. According to the American Obesity Association, there are currently more than 60 million cases of obesity in the United States, and the American Diabetes Association reports that there are more than 16 million cases of type 2 diabetes in the United States. The World Health Organization estimates that, on a worldwide basis, there are more than 300 million cases of obesity and 159 million cases of type 2 diabetes.

One of our small-molecule product candidates, iroxanadine, was well-tolerated and demonstrated significant improvement in vascular function in the brachial artery of hypertensive patients in Phase I and Phase II clinical trials conducted prior to our acquisition of iroxanadine. In May 2007, we announced that iroxanadine has demonstrated the ability to dramatically and reproducibly accelerate the healing of skin wounds in diabetic animals. Based on these favorable preclinical results and the earlier clinical study data, we plan to move into a Phase II clinical trial with iroxanadine for the treatment of diabetic foot ulcers in the first half of 2008, subject to FDA clearance.

HIV

We have licensed from the University of Massachusetts Medical School, or UMMS, a human immunodeficiency virus, or HIV, subunit vaccine technology based upon a unique mixture of pieces of human HIV-1 primary isolates from several genetic subtypes of HIV. These pieces, called HIV envelope proteins, are not sufficient for viral replication and therefore cannot lead to accidental infection by HIV. This so-called polyvalent naked DNA (isolated, purified DNA) vaccine approach has potential advantages over other HIV vaccines in development, including maintaining efficacy despite the high mutation rate of HIV, achieving a broader immune response against divergent HIV-1 glycoproteins and neutralizing a wide spectrum of HIV-1 viruses. UMMS, which has conducted animal studies of this vaccine, and Advanced BioScience Laboratories, or ABL, which provides an adjuvant for use with the vaccine, received a $16 million grant from the National Institutes of Health, or NIH. An adjuvant is an agent added to a vaccine to enhance the vaccine s effectiveness. The NIH grant funded a Phase I clinical trial of a vaccine candidate using our licensed technology that indicated the vaccine s ability to produce potent antibody responses with neutralizing activity against multiple HIV viral strains. We are continuing to evaluate the vaccine technology to determine whether to proceed with further clinical development, and continue to explore other potential strategic alternatives for the vaccine asset.

Other Technologies and Strategic Arrangements

Our other primary technologies, which we acquired or developed prior to the acquisition of our molecular chaperone 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.

Therapeutic Copolymer Program

CRL-5861 (purified poloxamer 188) is an intravenous agent for the treatment of sickle cell disease and other acute vaso-occlusive disorders. Sickle cell disease is an inherited disease caused by a genetic mutation of hemoglobin in the blood, and acute vaso-occlusive disorders are a blockage of blood flow caused by deformed, or sickled, red blood cells that can cause intense pain in sickle cell disease patients. In June 2004, we licensed our copolymer technologies, including CRL-5861, on an exclusive basis, to SynthRx, Inc., a Houston, Texas-based biopharmaceutical company, in exchange for a cash payment and equity interest in SynthRx. Upon commercialization of any products developed under our alliance with SynthRx, we may also receive milestone payments and royalties.

Vaccine Enhancement and Gene Therapy

Gene therapy and gene-based vaccines are mediated through the delivery of DNA containing selected genes into cells by a process known as transfection. We refer to our gene delivery technology as TranzFect.

In November 2000, we entered into an exclusive, worldwide license agreement with Merck & Co., Inc. under which we granted Merck the right to use our TranzFect technology in DNA-based vaccines for HIV and three other applications. Merck has completed a multi-center, blinded, placebo-controlled Phase I trial of an HIV vaccine utilizing TranzFect as a component. Although the formulation of the tested vaccine was generally safe, well-tolerated and generated an immune response, the addition of TranzFect to the vaccine did not increase this immune response. Moreover, the DNA single-modality vaccine regimen with TranzFect, when tested in humans, yielded immune responses that were inferior to those obtained with the DNA vaccines in animal studies. In July 2003, Merck returned to us the rights to the three other applications covered by its license, which are available to us to use or license to other third parties.

We also are party to a license agreement with Vical Incorporated under which we grant to Vical exclusive, worldwide rights to use and sublicense our TranzFect technology to enhance viral or non-viral delivery of polynucleotides, such as DNA and RNA, in all preventive and therapeutic human and animal health applications (except HIV and the three other applications previously licensed by us to Merck), DNA vaccines or therapeutics based on prostate-specific membrane antigen, or PSMA, and sale of a non-regulated product for use as a non-clinical research reagent to increase transfection *in vitro* or in laboratory animals. In addition, the Vical license permits Vical to use TranzFect technology to enhance the delivery of proteins in prime-boost vaccine applications that involve the use of polynucleotides (short segments of DNA or RNA). Under the Vical license, we are entitled to receive milestone and royalty payments in the future based on criteria described in the agreement.

We also may seek to license our TranzFect technology as a potential adjuvant for hepatitis C, human pappiloma virus, herpes simplex virus and other viral diseases or for use as a non-clinical research reagent to increase transfection *in vitro* or in laboratory animals.

Manufacturing

We have no capability to manufacture supplies of any of our products, and rely on third-party contract manufacturers to produce materials needed for research and clinical trials, including clinical supplies of arimoclomol for our planned Phase IIb trial. To be commercialized, our products must be capable of being manufactured in commercial quantities in compliance with stringent regulatory requirements and at an

acceptable cost. We also intend to rely on third-party manufacturers to produce commercial quantities of any products for which we are able to obtain marketing approval. We have not commercialized any product, and have not demonstrated that any of our product candidates can be manufactured in commercial quantities in accordance with applicable regulatory requirements, or at an acceptable cost.

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

Patents and Proprietary Technology

We actively seek patent protection for our technologies, processes, uses, and ongoing improvements and consider our patents and other intellectual property to be critical to our business. We acquired patents and patent applications, and have filed several new patent applications, in connection with our molecular chaperone program. We also licensed additional technologies, including patents or patent applications, in the RNAi field that we contributed to RXi as part of our arrangements with RXi described below under Arrangements with RXi Pharmaceuticals Corporation.

We regularly evaluate the patentability of new inventions and improvements developed by us or our collaborators, and, whenever appropriate, will endeavor to file United States and international patent applications to protect these new inventions and improvements. We cannot be certain that any of the current pending patent applications we have filed or licensed, or any new patent applications we 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 our products or processes. It is also possible that any patents issued to us, as well as those we have licensed or may license in the future, may be held invalid or unenforceable by a court, or third parties could obtain patents that we would need to either license or to design around, which we 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 co-induction and other small-molecule technology, RNAi technology, DNA-based vaccines or other compounds, products or processes that may be competitive with ours.

In addition to patent protection, we attempt to protect our proprietary products, processes and other information by relying on trade secrets and non-disclosure agreements with our employees, consultants and certain other persons who have access to such products, processes and information. Under the agreements, all inventions conceived by employees are our exclusive property, but there is no assurance that these agreements will afford significant protection against misappropriation or unauthorized disclosure of our trade secrets and confidential information.

Competition

We are aware of only one drug, Rilutek, developed by Aventis Pharma AG, that has been approved by the FDA for the treatment of ALS. Other companies are working to develop pharmaceuticals to treat ALS, including Aeolus Pharmaceuticals, Celgene Corporation, Mitsubishi Pharma Corporation, Ono Pharmaceuticals, Trophos SA, Faust Pharmaceuticals SA, Oxford BioMedica plc, Phytopharm plc and Teva Pharmaceutical Industries Ltd., as well as RXi. In addition, ALS belongs to a family of diseases called neurodegenerative diseases, which includes Alzheimer s, Parkinson s and Huntington s disease. Due to similarities between these diseases, a new treatment for one such disease potentially could be useful for treating others, and there are many companies that are producing and developing drugs used to treat neurodegenerative diseases other than ALS, including Amgen, Inc., Biogen Idec, Bohringer Ingelhaim, Cephalon, Inc., Ceregene, Inc., Elan Pharmaceuticals, plc, Forest Laboratories, Inc., H. Lundbeck A/S, Phytopharm plc, UCB Group and Wyeth.

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.

Companies developing HIV vaccines that could compete with our HIV vaccine technology include Merck, VaxGen, Inc., AlphaVax, Inc. and Immunitor Corporation.

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 ours or our strategic partners or licensees, are engaged in the research and development of pharmaceutical products that could compete with our potential products. To the extent that we seek to acquire, through license or otherwise, existing or potential new products, we will be competing with numerous other companies, many of which will have substantially greater financial resources, large acquisition and research and development staffs that may give those companies a competitive advantage over us in identifying and evaluating these drug acquisition opportunities. Any products that we acquire will be competing with products marketed by companies that in many cases will have substantially greater marketing resources than we have. The 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 our strategic partners or licensees. Competitive products for a number of the disease indications that we have targeted are currently being marketed by other parties, and additional competitive products are under development and may also include products currently under development that we are not aware of or products that may be developed in the future.

Government Regulation

The United States and other developed countries regulate extensively 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 Public Health Service Act and other federal statutes and regulations, regulates pharmaceutical and biologic products.

To obtain approval of our product candidates from the FDA, among other things we must 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 involve 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 we fail to comply with regulatory standards or if we encounter problems at any time following initial marketing of our 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 arimoclomol for the treatment of ALS.

We anticipate that our products will be manufactured by our 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. Our manufacturers also 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. Our 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. We 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, we 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.

We will also be subject to a variety of regulations governing clinical trials and sales of our 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.

Properties and Facilities

Our executive offices are located at 11726 San Vicente Boulevard, Suite 650, Los Angeles, California, where we lease approximately 4,700 square feet of space pursuant to a lease with Douglas Emmett 1993, LLC, as landlord. The lease term will expire on June 30, 2008, subject to our right to renew the lease for an additional three-year term. The current monthly rental under the lease is approximately $14,000, which is subject to increase annually.

Our laboratory facilities are located at 3030 Bunker Hill Street, San Diego, California, where we lease approximately 10,000 square feet of office and laboratory space pursuant to a lease with a term expiring on July 31, 2010, unless earlier terminated in accordance with the lease. The lease is a so-called triple net lease, under which our monthly payments will include rent of approximately $18,000, plus our *pro rata* share of the operating expenses (as defined) of the premises. Our allocable current monthly operating expenses are estimated to be approximately $16,300. Rent under the lease is subject to an increase of 3% on each anniversary of the commencement of the lease term.

RXi s office and laboratories are currently located at One Innovation Drive, adjacent to UMMS in Worcester, Massachusetts, where RXi leases approximately 7,200 square feet of space pursuant to a lease with Are-One Innovation Drive, LLC that expires on December 31, 2007. The current monthly rental under the lease is approximately $21,650. RXi has entered into a lease agreement with Newgate Properties, LLC (an affiliate of Worcester Polytechnic Institute), to lease approximately 5,300 square feet of space at a new facility at One Gateway Place, Worcester, Massachusetts, for a term expiring in July 2009. The monthly rental is approximately $15,000. RXi anticipates that it will relocate to this new space in December 2007.

We believe that our facilities are suitable for our needs for the foreseeable future.

Employees

As of November 16, 2007, CytRx had 22 full-time employees, 11 of whom were engaged in research and development and 11 of whom were engaged in management, administration and finance. As of the same date, RXi had 15 full-time employees, eight of whom were engaged in research and development and seven of whom were engaged in management, administration and finance. None of our employees are represented by a labor union or covered by a collective bargaining agreement, nor have we experienced any work stoppages.

Legal Proceedings

We are not currently involved in any legal proceeding. We may become a party from time to time to legal actions and complaints arising in the ordinary course of our business.

RXi Pharmaceuticals Corporation

RXi Pharmaceuticals Corporation, or RXi, is a discovery-stage biopharmaceutical company engaged in the development and commercialization of proprietary therapeutics based on RNA interference, or RNAi, for the treatment of human diseases. We believe RNAi-based therapeutics have the potential to effectively treat a broad array of diseases by interfering with (sometimes referred to as silencing) the expression of targeted disease-associated genes. Our initial focus is on the treatment of neurological diseases, metabolic diseases and cancer.

RXi was founded in April 2006 by us and four leading researchers in the field of RNAi, including Dr. Craig Mello, recipient of the 2006 Nobel Prize for Medicine for his co-discovery of RNAi, and Blais University Chair of Molecular Medicine at the University of Massachusetts Medical School, or UMMS. RXi began operations as our

majority-owned subsidiary in January 2007 for the purpose of accelerating the discovery of RNAi therapeutics previously sponsored by us.

RNAi is a naturally occurring mechanism for the regulation of gene expression that has the potential to be harnessed to selectively inhibit the activity of any human gene. It is believed that this inhibition may potentially treat human diseases by turning off genes that lead to disease. While no therapeutic RNAi products have been approved to date, there has been significant growth in the field of RNAi development and potential therapeutic applications. This growth is driven by the potential ability to use RNAi to rapidly develop lead compounds that specifically and selectively inhibit a target gene. By utilizing its expertise in RNAi and the RNAi technology platform it has licensed from leading researchers, RXi intends to identify lead compounds and advance towards pre-clinical and clinical development programs in the following four therapeutic areas:

Neurology. Initially, RXi is pursuing research in ALS caused by defects in a gene called SOD1. Early preclinical studies conducted by RXi advisors, Dr. Tariq Rana and Dr. Zuoshang Xu at UMMS, showed promising results in animals using an RNAi compound to selectively inhibit the SOD1 gene. RXi is refining and extending this work and, if successful, will undertake preclinical development of the compound for this indication. RXi also intends to leverage its experience related to the delivery of RNAi therapeutics in the central nervous system to explore development of RNAi-based treatments for neurodegenerative diseases other than ALS, including Alzheimer s Disease.

Metabolic disease. One of RXi s scientific co-founders and scientific advisory board members, Dr. Michael Czech, is a leading metabolic disease researcher. RXi has in-licensed intellectual property developed by Dr. Czech on genes that appear to be important regulators of metabolism. Studies conducted in Dr. Czech s laboratory at UMMS and by others at Imperial College of London have demonstrated that inactivation of one of these genes, called RIP140, can cause fat cells to metabolize rather than store fat. Mice in these studies that did not express RIP140 remained lean and non-diabetic even when maintained on a high fat diet. RXi is currently designing RNAi compounds targeting RIP140 as a potential treatment for obesity and obesity-related type 2 diabetes. RXi also continues to evaluate genes in Dr. Czech s database for candidate targets.

Oncology. RXi is initiating a program to develop RNAi drugs for use in oncology. This strategy is led by RXi s scientific advisors, Dr. Greg Hannon and Dr. Nicholas Dean, both of whom are leading researchers in targeting oncogene pathways. RXi s management team also has expertise in developing programs targeting genes involved in cancer. Dr. Pamela Pavco, RXi s Vice President for Pharmaceutical Development, previously managed the pre-clinical programs targeting genes involved with cancer while at Sirna Therapeutics, Inc. (recently acquired by Merck & Co.).

Additional indications. There are many well-studied genes associated with numerous diseases that have been identified, but have been difficult to target with normal medicinal chemistry. Management of RXi believes RNAi technology may play an important role in targeting these genes and potentially treating these diseases.

RXi has secured exclusive and non-exclusive licenses under various issued and pending patents and patent applications covering RNAi technologies in therapeutic targets, chemistry and configurations of RNAi and delivery of RNAi within the body.

Arrangements with RXi

We have entered into several agreements and arrangements with RXi, including the following:

Contribution Agreement of January 8, 2007

On January 8, 2007, we entered into a contribution agreement with RXi under which we assigned and contributed to RXi substantially all of our RNAi-related technologies and assets. The assigned assets consisted primarily of licenses from UMMS and the Carnegie Institution of Washington relating to fundamental RNAi technologies, as well as equipment situated at our Worcester, Massachusetts, laboratory. In connection with

the contribution, RXi assumed primary responsibility for all payments to UMMS and other obligations under the licenses and other assets contributed by us and issued to us 7,040,318 shares of RXi common stock, which represented approximately 85% of RXi s outstanding shares immediately following the issuance. The number of shares of RXi common stock issued to us was determined as a result of arm s-length negotiations among RXi, us and RXi s other founding shareholders regarding the relative share ownership of RXi by us and RXi s other founding shareholder following the contribution, and did not necessarily bear any relation to the fair value of our assets or of RXi s common stock. The cost to CytRx of the contributed assets acquired by CytRx during the period starting January 8, 2005, through January 1, 2007, was approximately $277,600.

Reimbursement Agreement

On January 8, 2007, we also entered into a letter agreement with RXi under which RXi agreed to reimburse us for organizational and operational expenses incurred by us in connection with RXi s formation and initial operations, and to bear or reimburse us for an allocable share of any investment banking fees, placement agent fees and other offering expenses incurred by us in connection with RXi s fundraising activities. In connection with the April 30, 2007 contribution agreement with CytRx described below in this section under Contribution Agreement of April 30, 2007, RXi reimbursed us in accordance with this letter agreement.

UMMS Agreements

As an inducement to UMMS to enter new licenses and an invention disclosure agreement with RXi in January 2007, we entered into a letter agreement with UMMS regarding management of RXI. We agreed in the letter agreement that, during the term of the new UMMS licenses, we will vote our 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.

We also agreed in the letter agreement that we would reduce our ownership interest in RXi to less than a majority as soon as reasonably practicable following RXi s initial funding. We intend to satisfy this obligation by undertaking the distribution to CytRx stockholders of a portion of our RXi shares pursuant to the registration statement on Form S-1 filed with the Securities and Exchange Commission by RXi on October 30, 2007.

Stockholder and Preemptive Rights Agreement

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

Under this letter agreement, we reiterate our undertaking to vote our shares of stock of RXi in the election of RXi s directors and reduce our ownership shares of RXi stock in accordance with the terms of our letter agreement with UMMS described above. We further agree in this letter agreement to approve of actions that may be adopted and recommended by the RXi board of directors to facilitate any future financing by RXi.

Contribution Agreement of April 30, 2007

On April 30, 2007, we entered into another contribution agreement with RXi under which we contributed to RXi $17,000,000 in exchange for 3,273,292 shares of RXi common stock. RXi used $2,000,000 of this amount to reimburse us for the estimated amount of expenses that we had incurred as of April 30, 2007 pursuant to the January 8, 2007 reimbursement agreement described above. The parties agreed

in the contribution agreement that the actual amount of such expenses incurred by us would be subsequently determined and that, to the extent the actual expenses were greater or less than $2,000,000, RXi would issue to us additional shares of RXi common stock, or we would return to RXi for cancellation some number of our shares of RXi common stock, as the case may be, utilizing the same valuation of RXi shares used in determining the number of shares issued to us pursuant to the contribution agreement. In September 2007, the actual expenses incurred by us were determined to be approximately $3 million, and on September 25, 2007, RXi issued to us 188,387 shares of RXi common stock as reimbursement of the excess expenses.

The number of shares of RXi common stock issued to CytRx pursuant to the April 30, 2007 contribution agreement was determined based upon a pre-money valuation of RXi of approximately $45 million, or approximately $5.00 per share of RXi; however, the actual fair value of RXi common stock may be different than $5.00 per share. This valuation was determined as a result of arm s-length negotiations between us and RXi management based, in part, upon the valuation advice of the third-party valuation advisor originally retained by our management in connection with the January 8, 2007 contribution agreement.

Registration Rights Agreement

On April 30, 2007, we entered into a registration rights agreement with RXi under which RXi agrees, upon our request, to use its best efforts to cause to be registered under the Securities Act all of the RXi shares issued to us pursuant to our contribution agreements with RXi, with certain exceptions, and to bear expenses incurred in connection with any such registration. Pursuant to the registration rights agreement, all of our RXi shares have been included as part of the registration statement on Form S-1 filed with the Securities and Exchange Commission by RXi on October 30, 2007.

RISK FACTORS

An investment in our shares involves a high degree of risk. Prior to making a decision about purchasing our common stock, you should carefully consider the risks and uncertainties and all other information contained or incorporated by reference in this prospectus and in the prospectus supplement, including the risks and uncertainties discussed below, as well as any modification, replacement or update to these risks and uncertainties that are reflected in any subsequent filings we make with the Securities and Exchange Commission as described under Where You Can Find More Information in this prospectus. These risks and uncertainties are not the only ones facing us. Additional risks and uncertainties not presently known to us, or that we currently perceive as immaterial, may also harm our business. If any of these risks or uncertainties actually occur, our business, results of operations and financial condition could be materially and adversely affected. In that case, the trading price of our common stock could decline, and you could lose all or part of your investment.

Risks Associated With Our Business

We Have Operated at a Loss and Will Likely Continue to Operate at a Loss For the Foreseeable Future

We have operated at a loss due to substantial expenditures for research and development of our product candidates and for general and administrative purposes and our lack of significant recurring revenue. We incurred net losses of $16.8 million, $15.1 million and $16.4 million for the years ended December 31, 2006, 2005 and 2004, respectively. Our net losses applicable to common shareholders for the three-month and nine-month periods ended September 30, 2007 were $4.6 million and $15.4 million, respectively, as compared to $3.0 million and $13.1 million, respectively, for the same periods in 2006. We had an accumulated deficit as of September 30, 2007 of approximately $155 million, and we are likely to continue to incur losses unless and until we are able to commercialize one or more of our products. There is no assurance that we will ever become profitable.

We Have No Source of Significant Recurring Revenue, Which Makes Us Dependent on Financing to Sustain Our Operations

Our revenue was $2.0 million and $6.0 million, respectively, for three-month and nine-month periods ended September 30, 2007, of which $2.0 and $5.9, respectively, was deferred revenue recognized from our sale in August 2006 of a one-percent royalty interest in worldwide sales of arimoclomol. We will have no other significant recurring revenue until at least one of the following occurs:

We are able to commercialize one or more of our products in development, which may require us to first enter into license or other arrangements with third parties.

One or more of our licensed products is commercialized by our licensees, thereby generating royalty revenue for us.

We are able to acquire products from third parties that are already being marketed or are approved for marketing.

We have relied primarily upon proceeds from sales of our equity securities and the exercise of options and warrants, and to a much lesser extent, upon payments from our strategic partners and licensees, to generate funds needed to finance our business and operations. At September 30, 2007, we had cash, cash equivalents and short-term investments of $66.2 million, and as of November 16, 2007, we had received approximately $2.2 million in connection with the exercise of warrants and options since September 30, 2007. We believe that we have adequate financial resources to support our currently planned level of operations into the second half of 2009, based, in part, upon projected expenditures for the remainder of 2007 and the first nine months of 2008 of $30.1 million, including $5.0 million for our planned clinical program for arimoclomol for ALS and related studies, $5.5 million for our other ongoing and planned clinical programs, including a planned Phase II clinical trial of arimoclomol in stroke patients and a planned Phase II clinical trial of iroxanadine for diabetic ulcers, $8.2 million for the operations of our research laboratory in San Diego and $8.8 million for other general and administrative expenses. We estimate that RXi separately will expend approximately $9.1 million for the remainder of 2007 and the first nine months of 2008.

We anticipate it will take a minimum of three years, and possibly longer, for us to generate significant recurring revenue, and we will be dependent on future financing until such time, if ever, as we can generate significant recurring revenue. We have no commitments from third parties to provide us with any additional financing, and we may not be able to obtain future financing on favorable terms, or at all. If we are unable to obtain needed future financing, we may have to modify our long-term business plans.

Our Current Financial Resources May Be Diminished If We Elect To Provide RXi with Additional Future Funding

We have no obligation to provide any additional funding to RXi, but we might seek to do so in order to protect our investment in RXi if RXi is unable to obtain sufficient funding on its own. We have the right to provide additional funding to RXi only in connection with the exercise of our preemptive rights to purchase any new securities that may be sold or issued by RXi. If we provide RXi with any additional funding, we will have less funds available for our own business and operations.

We Will Be Reliant Upon Third Parties for the Development and Eventual Marketing of Our Products

Our business plan is to enter into strategic alliances, license agreements or other collaborative arrangements with other pharmaceutical companies under which those companies will be responsible for the commercial development and eventual marketing of our products. We currently plan to continue the development of arimoclomol for the treatment of ALS under our Master Agreement for clinical trials management services with Pharmaceutical Research Associates, or PRA, and we may seek to market it

ourselves if it is approved by the FDA; however, the completion of the development of arimoclomol and our other product candidates, as well as the marketing of these products, will likely require us to enter into strategic arrangements with other pharmaceutical or biotechnology companies.

There can be no assurance that any of our products will have sufficient potential commercial value to enable us to secure strategic arrangements with suitable companies on attractive terms, or at all. If we are unable to enter into such arrangements, we may not have the financial or other resources to complete the development of any of our products. We do not have a commercial relationship with the company that provided an adjuvant for the vaccine for the Phase I clinical trial of our HIV vaccine candidate conducted by UMMS and Advanced BioScience Laboratories. If we are not able to enter into such a relationship, we may be unable to use some or all of the results of the clinical trial as part of our clinical data for obtaining FDA approval of this vaccine, which would delay the development of the vaccine.

To the extent we enter into collaborative arrangements, we will be dependent upon the timeliness and effectiveness of the development and marketing efforts of our 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, the timing of receipt or amount of revenue from these arrangements may be materially and adversely affected. By entering into these arrangements rather than completing the development and then marketing these products on our own, we may suffer a reduction in the ultimate overall profitability for us of these products. In addition, if we are unable to enter into these arrangements for a particular product, we may be required to either sell our rights in the product to a third party or abandon it unless we are able to raise sufficient capital to fund the substantial expenditures necessary for development and marketing of the product.

We Will Incur Substantial Expenses and May Be Required to Pay Substantial Milestone Payments Relating to Our Product Development Efforts

We estimate that during the next two to three years we will incur significant expenses in connection with our planned Phase IIb clinical trial for arimoclomol for the treatment of ALS, including the completion of our planned Phase IIb efficacy trial and related activities. We are also planning to undertake a second efficacy clinical trial of arimoclomol for ALS, possibly in parallel with our planned Phase IIb trial, in order to provide additional efficacy data to support a possible approval decision by the FDA. The actual costs of our planned Phase IIb efficacy trial and any additional efficacy trial we undertake could significantly exceed our current estimates due to a variety of factors associated with the conduct of clinical trials generally, including those described below in this section below under If Our Products Are Not Successfully Developed and Approved by the FDA, We May Be Forced to Reduce or Curtail Our Operations.

Our agreement by which we acquired arimoclomol and our other molecular chaperone co-induction product candidates provides for milestone payments by us based on the occurrence of certain regulatory filings and approvals related to the acquired products. In the event that we successfully develop 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.

If Our Products Are Not Successfully Developed and Approved by the FDA, We May Be Forced to Reduce or Curtail Our Operations

All of our products in development must be approved by the FDA or similar 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, which may take longer or cost more than we or our licensees 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 products may not necessarily indicate 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 our drug 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 FDA or foreign governmental product testing, manufacturing or marketing requirements.

Inability to generate statistically significant data confirming the efficacy of the product being tested.

Modification of the product during testing.

Inability to generate statistically significant data confirming the efficacy of the product being tested.

Reallocation of our limited financial and other resources to other clinical programs.

It is possible that none of the products we develop will obtain the appropriate regulatory approvals necessary for us 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 drug candidate. Any analysis we perform of data from clinical activities is subject to confirmation and interpretation by regulatory authorities, which could delay, limit or prevent regulatory approval. Any delay or failure in obtaining required approvals could have a material adverse effect on our ability to generate revenue from the particular drug candidate.

Our Molecular Chaperone Co-Induction Drug Candidates May Not Receive Regulatory Marketing Approvals

Our Phase IIa clinical trial and open-label trial extension of arimoclomol for the treatment of ALS indicated that arimoclomol was safe and well-tolerated in patients. We plan to initiate a Phase IIb efficacy trial of arimoclomol for this indication before the end of 2007, and plan to undertake a second efficacy trial of arimoclomol for ALS, possibly in parallel with our planned Phase IIb trial, to provide additional data to support a possible approval decision by the FDA. In addition, we are planning to conduct a Phase II clinical trial of arimoclomol in stroke patients, and we plan to conduct clinical development of iroxanadine for diabetic ulcers, both of which would require significant and costly additional testing. There is no guarantee that additional clinical testing of our product candidates will be successful, or that the FDA will approve marketing of any of our products and allow them to be sold in the United States.

We Have Recently Identified Material Weaknesses in Our Internal Controls Over Financial Reporting

In our Quarterly Report on Form 10-Q for the quarter ended September 30, 2007, we identified material weaknesses in the effectiveness of our internal controls over financial reporting related to our accounting for an equity transaction by RXi and our tax withholding in connection with exercises of employee stock options that prompted us to restate our consolidated financial statements for the quarter ended June 30, 2007. In our original Quarterly Report on Form 10-Q for the quarter ended June 30, 2007, we identified a material weakness related to our process for closing our quarterly books and records. In our amended

Quarterly Report on Form 10-Q for the quarter ended March 31, 2007, we restated our financial statements for the first three quarters of fiscal 2006 to reflect the proper accounting for transactions at our former laboratory facility. In our most recent Annual Report on Form 10-K, we also identified material weaknesses in the effectiveness of our internal controls over financial reporting related to the application of accounting principles generally accepted in the United States of America arising from our accounting for historical warrant anti-dilution adjustments as deemed dividends and in the effectiveness of our internal controls over quarterly and annual financial statement reporting arising from our accounting for research and development expenses related to our laboratory facility in Worcester, Massachusetts. These matters are described in more detail under the heading Controls and Procedures in our reports referred to above.

Despite our efforts to ensure the integrity of our financial reporting process, we cannot guarantee that we will not identify other material weaknesses in the future. Any material weaknesses in our internal control over financial reporting could result in errors in our consolidated financial statements, which could erode market confidence in our company, adversely affect the market price of our common stock and, in egregious circumstances, result in possible claims based upon such financial information.

We Are Subject to Intense Competition, and There is No Assurance That We Can Compete Successfully

We and our strategic partners or licensees may be unable to compete successfully against our current or future competitors. The pharmaceutical, biopharmaceutical and biotechnology industry is 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 our 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 we compete have or are likely to have substantially greater research and product development capabilities and financial, technical, scientific, manufacturing, marketing, distribution and other resources than at least some of our present or future strategic partners or licensees.

As a result, these competitors may:

Succeed in developing competitive products sooner than us or our strategic partners or licensees.

Obtain FDA or foreign governmental approvals for their products before we can obtain approval of any of our products.

Obtain patents that block or otherwise inhibit the development and commercialization of our product candidates.

Develop products that are safer or more effective than our products.

Devote greater resources than us to marketing or selling products.

Introduce or adapt more quickly than us to new technologies and other scientific advances.

Introduce products that render our products obsolete.

Withstand price competition more successfully than us or our strategic partners or licensees.

Negotiate third-party strategic alliances or licensing arrangements more effectively than us.

Take better advantage than us of other opportunities.

We are 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 Pharma Corporation, Ono Pharmaceuticals, Trophos SA, Faust Pharmaceuticals SA, Oxford BioMedica plc, Phytopharm plc and Teva Pharmaceutical Industries Ltd., as well as RXi. ALS belongs to a family of diseases called neurodegenerative diseases, including Alzheimer s, Parkinson s and Huntington s disease. 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, Bohringer Ingelhaim, Cephalon, Inc., Ceregene, Inc., Elan Pharmaceuticals, plc, Forest Laboratories, Inc., H. Lundbeck A/S, Phytopharm plc, UCB Group and Wyeth.

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.

Companies developing HIV vaccines that could compete with our HIV vaccine technology include Merck, GlaxoSmithKline, Sanofi Pasteur, VaxGen, Inc., AlphaVax, Inc. and Immunitor Corporation. Most of our competitors have substantially greater research and product development capabilities and financial, technical, scientific, manufacturing, marketing, distribution and other resources than us.

We Will Rely Upon Third Parties for the Manufacture of Our Clinical Product Supplies

We do not have the facilities or expertise to manufacture supplies of any of our product candidates, including the clinical supply of arimoclomol used in our Phase II clinical trials. Accordingly, we are dependent upon contract manufacturers or our strategic alliance partners to manufacture these supplies. We have a manufacturing supply arrangement in place with respect to the clinical supplies for the Phase II clinical program for arimoclomol for ALS and stroke recovery and for iroxanadine for diabetic ulcers. We have no manufacturing supply arrangements for any of our other product candidates, and there can be no assurance that we will be able to secure needed manufacturing supply arrangements on attractive terms, or at all. Our failure to secure these arrangements as needed could have a materially adverse effect on our ability to complete the development of our products or to commercialize them.

We May Be Unable to Protect Our Intellectual Property Rights, Which Could Adversely Affect the Value of Our Assets

We believe that obtaining and maintaining patent and other intellectual property rights for our technologies and potential products is critical to establishing and maintaining the value of our assets and our business. Although we have patents and patent applications directed to our molecular chaperone co-induction technologies, there can be no assurance that these patents and applications will prevent third parties from developing or commercializing similar or identical technologies, that the validity of our patents will be upheld if challenged by third parties or that our technologies will not be deemed to infringe the intellectual property rights of third parties. In particular, although we conducted certain due diligence regarding the patents and patent applications related to our molecular chaperone co-induction drug candidates, and received certain representations and warranties from the seller in connection with the acquisition, the patents and patent applications related to our molecular chaperone co-induction drug candidates were issued or filed, as applicable, prior to our acquisition and thus there can be no assurance that the validity, enforceability and ownership of those patents and patent applications will be upheld if challenged by third parties.

Any litigation brought by us to protect our intellectual property rights or by third parties asserting intellectual property rights against us, or challenging our patents, could be costly and have a material adverse effect on our operating results or financial condition, make it more difficult for us to enter into strategic alliances with third parties to develop our products, or discourage our existing licensees from continuing their development work on our potential products. If our patent coverage is insufficient to prevent third parties from

developing or commercializing similar or identical technologies, the value of our assets is likely to be materially and adversely affected.

We Are Subject to Potential Liabilities From Clinical Testing and Future Product Liability Claims

If any of our products are alleged to be defective, they may expose us to claims for personal injury by patients in clinical trials of our products or by patients using our commercially marketed products. Even if the commercialization of one or more of our products is approved by the FDA, users may claim that such products caused unintended adverse effects. We currently do not carry product liability insurance covering the commercial marketing of these products. We obtained clinical trial insurance for our Phase IIa clinical trial of arimoclomol for the treatment of ALS, and will seek to obtain similar insurance for the planned Phase IIb clinical trial of arimoclomol and any other clinical trials that we conduct, as well as liability insurance for any products that we market. There can be no assurance that we will be able to obtain additional insurance in the amounts we seek, or at all. We anticipate that our licensees who are developing our products will carry liability insurance covering the clinical testing and marketing of those products. There is no assurance, however, that any insurance maintained by us or our licensees will prove adequate in the event of a claim against us. Even if claims asserted against us are unsuccessful, they may divert management s attention from our operations and we may have to incur substantial costs to defend such claims.

We May Be Unable to Acquire Products Approved For Marketing

In the future, we may seek to acquire products from third parties that already are being marketed or have been approved for marketing. We have not identified any of these products, and we do not have any prior experience in acquiring or marketing products and may need to find third parties to market any products that we might acquire. We 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 our merger partner could be issued or hold a substantial, or even controlling, amount of stock in our company or, in the event that the other company is the surviving company, in that other company.

Risks Associated With Our Ownership of RXi

RXi is Subject to Risks of a New Business

RXi is a development-stage company with limited operating history. RXi began operating on a stand-alone basis in February 2007, and is focused initially on developing and commercializing therapeutic products based upon its RNAi technologies. There is no assurance that RXi will be able to successfully implement its business plan. While RXi s management collectively possesses substantial business experience, there is no assurance that they will be able to manage RXi s business effectively, or that they will be able to identify, hire and retain any needed additional management or scientific personnel, to develop and implement RXi s product development plans, obtain third-party contracts or any needed financing, or achieve the other components of RXi s business plan.

The Approach RXi is Taking to Discover and Develop Novel Therapeutics Using RNAi is Unproven and May Never Lead to Marketable Products

The scientific discoveries that form the basis for RXi s efforts to discover and develop new drugs are relatively new. The RNAi technologies that RXi has licensed from UMMS have not yet been clinically tested by RXi, nor are we aware of any clinical trials having been completed by third parties involving similar technologies. The scientific evidence to support the feasibility of developing drugs based on these discoveries is both preliminary and limited, and no company has received regulatory approval to market therapeutics utilizing RNAi. Successful development of RNAi-based products by RXi will require solving a number of issues, including providing suitable methods of stabilizing the RNAi drug material and delivering it into target cells in the human body. RXi may expend large amounts of money trying to solve these issues, and never succeed in doing so. In addition, any compounds that RXi develops may not demonstrate in patients the

chemical and pharmacological properties ascribed to them in laboratory studies, and they may interact with human biological systems in unforeseen, ineffective or even harmful ways.

The Distribution of RXi Common Stock to Our Stockholders May be Taxable to CytRx

On October 30, 2007, RXi filed a registration statement on Form S-1 with the SEC to register the shares of RXi common stock that will be distributed to CytRx stockholders. The registration statement filed by RXi also covers shares of RXi common stock that will be awarded by us to some of our directors, officers and other employees. Following the distribution and award transactions, we will own approximately 6,212,861 shares of RXi common stock, or approximately 49% of the outstanding RXi shares, all of which have been registered for resale by us pursuant to the registration statement filed by RXi. We will recognize gain on the distribution of shares of RXi common stock in an amount equal to the excess of the fair market value of the stock distributed over our basis. This taxable gain will be included in determining whether we have current year earnings and profits.

The FDA Approval Process May be Delayed for Any Drugs RXi Develops That Require the Use of Specialized Drug Delivery Devices or Vehicles

Some drug candidates that RXi may develop may need to be administered using specialized vehicles that deliver RNAi therapeutics to diseased parts of the body. While RXi expects to rely on drug delivery vehicles that have been approved by the FDA or other regulatory agencies, RXi may need to modify the design or labeling of these delivery vehicles for products that it may develop. In such event, the FDA may regulate the product as a combination product of a drug and a device, or require additional approvals or clearances for the modified delivery. To the extent any specialized delivery vehicle is owned by another, RXi would need that company s cooperation to implement the necessary changes to the vehicle, or its labeling, and to obtain any additional approvals or clearances. Any delays in finding suitable drug delivery vehicles to administer RNAi therapeutics directly to diseased parts of the body could negatively affect RXi s ability to successfully commercialize its RNAi therapeutics.

RXi May Be Unable to Protect Its Intellectual Property Rights Licensed From UMMS or May Need to License Additional Intellectual Property from Others.

The assets we contributed to RXi include a non-exclusive license to the fundamental Fire & Mello foundational patent owned by UMMS and the Carnegie Institution of Washington, which claims various aspects of RNAi (sometimes referred to as gene silencing), or genetic inhibition by double-stranded RNA. The license continues to be available to third parties and, as such, it does not provide RXi with the ability to exclude others from its use or protect RXi from competition. Therapeutic applications of gene silencing technology and other technologies that RXi licenses from UMMS are also claimed in a number of UMMS pending patent applications, but there is no assurance that these applications will result in any issued patents or that any such issued patents would withstand possible legal challenges or effectively insulate RXi s technologies from competition. We are aware of a number of third party-issued patents directed to various forms and compositions of RNAi-mediating molecules, or therapeutic methods using them, that RXi does not currently expect to use. Third parties may, however, hold or seek to obtain additional patents that could make it more difficult or impossible for RXi to develop products based on the gene silencing technology that RXi has licensed.

In addition, others may challenge the patent owned by UMMS and the Carnegie Institution of Washington or other patents that RXi currently licenses or may license in the future. As a result, these patents could be narrowed, invalidated or rendered unenforceable, which would negatively affect RXi s ability to exclude others from use of RNAi technologies described in these patents.

RXi has entered into an invention disclosure agreement with UMMS under which UMMS has agreed to disclose to RXi certain inventions it makes and to give RXi the exclusive right to negotiate licenses to the disclosed inventions. There can be no assurance, however, that any such inventions will arise, that RXi will be

able to negotiate licenses to any inventions on satisfactory terms, or at all, or that any negotiated licenses will prove commercially successful.

RXi may need to license additional intellectual property rights from third parties in order to be able to complete the development or enhance the efficacy of its product candidates or avoid possible infringement of the rights of others. There is no assurance that RXi will be able to acquire any additional intellectual property rights on satisfactory terms, or at all.

RXi May Not Be Able to Obtain Sufficient Financing, and Our Ownership Interest in RXi May be Diluted by Additional Funding

On April 30, 2007, we provided to RXi $15.0 million, net of approximately $3.0 million of expenses reimbursed to us by RXi, to satisfy the initial funding requirements under its agreements with UMMS. Management of RXi believes this initial funding will be sufficient to fund RXi s planned business and operations into the first quarter of 2009. It is possible, however, that RXi may need to incur debt or issue equity in order to fund these requirements or to make acquisitions and other investments. We anticipate that RXi will need to raise substantial amounts of money to fund a variety of future activities integral to the development of its business, including, but not limited to, conducting research and development of its RNAi technologies and obtaining regulatory approval for its products.

We contributed to RXi all of our RNAi-related technologies to RXi in order to accelerate the development and commercialization of drugs based upon these and RXi s other RNAi technologies. Although we believe that this will facilitate obtaining additional financing to pursue RXi s RNAi development efforts, RXi has no commitments or arrangements for any financing, and there is no assurance that it will be able to obtain any future financing.

Under our agreement with RXi and its other current stockholders, with some exceptions, CytRx will have preemptive rights to acquire a portion of any new securities sold or issued by RXi so as to maintain our percentage ownership of RXi. Depending upon the terms and provisions of any proposed sale of new securities by RXi, we may be unable or unwilling to exercise our preemptive rights, in which event our percentage ownership interest in RXi would be diluted.

We May Be Required To Dispose of Some of Our RXi Shares, and May Not Be Able To Do So On Attractive Terms

If the value of RXi shares owned by us from time to time were to exceed 40% of the value of our total assets, we may be deemed an investment company within the meaning of the Investment Company Act of 1940 and become subject to the stringent regulations applicable to investment companies. In this event, we would likely seek to sell or otherwise dispose of shares of our common stock in order to avoid becoming an inadvertent investment company. There is no assurance that we would be able to sell or divest of RXi shares at attractive prices, and any such sales or other disposition by us, or the possibility of such sales or disposition, could adversely affect the market price of our RXi shares.

RXi Retains Discretion Over Its Use of Any Funds That We Provide To It

We do not and will not control the day-to-day operations of RXi. Accordingly, all funds provided by us to RXi may be used by RXi in any manner its management deems appropriate, for its own purposes, including the payment of salaries and expenses of its officers and other employees, amounts called for under the UMMS licenses and invention disclosure agreement, and for other costs and expenses of its RNAi research and development activities.

We Will Not Control RXi, and the Officers, Directors and Other RXi Stockholders May Have Interests That Are Different From Ours

We have entered into a letter agreement with UMMS and RXi and its other current stockholders under which we agree to vote our shares of RXi common stock for the election of directors of RXi and to take other actions to ensure that a majority of the RXi board of directors are independent of us. The other stockholders of RXi may have interests that are different from ours. Accordingly, RXi may engage in actions or develop its business and operations in a manner that we believe is not in our best interests.

Products Developed by RXi Could Eventually Compete With Our Products For ALS, Type 2 Diabetes and Obesity and Other Disease Indications

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

RXi Will Be Subject to Competition, and It May Not Be Able To Compete Successfully

A number of medical institutions and pharmaceutical companies are seeking to develop products based on gene silencing technologies. Companies working in this area include Alnylam Pharmaceuticals, Sirna Therapeutics (which was recently acquired by Merck), Acuity Pharmaceuticals, Nastech Pharmaceutical Company Inc., Cequent Pharmaceuticals, Inc., Nucleonics, Inc., Tacere Therapeutics Inc., Benitec Ltd., Opko Corp., Silence Therapeutics plc (formerly SR Pharma plc), Quark Pharmaceuticals, Inc., Rosetta Genomics Ltd., Calanda Pharmaeuticals, Inc. and Isis Pharmaceuticals, Inc., and a number of multinational pharmaceutical companies. These competitors have substantially greater research and development capabilities and financial, scientific, technical, manufacturing, marketing, distribution, and other resources than RXi, and RXi may not be able to compete successfully. In addition, even if RXi is successful in developing its product candidates, in order to compete successfully, it may need to be first to market or to demonstrate that its RNAi-based products are superior to therapies based on different technologies. If RXi is not first to market or is unable to demonstrate such superiority, its products may be not successful.

Risks Associated with Our Common Stock

Our Anti-Takeover Provisions May Make It More Difficult to Change Our Management or May Discourage Others From Acquiring Us and Thereby Adversely Affect Stockholder Value

We have a stockholder rights plan and provisions in our bylaws that are intended to protect our stockholders interests by encouraging anyone seeking control of our company to negotiate with our board of directors, and that may discourage or prevent a person or group from acquiring us without the approval of our board of directors.

We have 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 our board of directors. This provision applies to every election of directors, not just an election occurring after a change in control. The classification of our board increases the amount of time it takes to change majority control of our board of directors and may cause our potential purchasers to lose interest in the potential purchase of us, regardless of whether our purchase would be beneficial to us or our stockholders. The additional time and cost to change a majority of the members of our board of directors makes it more difficult and may discourage our existing stockholders from seeking to change our existing management in order to change the strategic direction or operational performance of our company.

Our 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 our capital stock then entitled to vote at an election of directors. This provision prevents stockholders from removing any incumbent director without cause. Our bylaws also provide that a stockholder must give us 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 us having advance notice of that proposal or director nomination. This could make a change in control more difficult by providing our 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, the bylaw provisions may also make our existing management less responsive to the views of our stockholders with respect to our operations and other issues such as management selection and management compensation.

Our Outstanding Options and Warrants and the Availability for Resale of Our Shares Issued in Our Private Financings May Adversely Affect the Trading Price of Our Common Stock

As of September 30, 2007, there were outstanding stock options and warrants to purchase approximately 26.9 million shares of our common stock at a weighted-average exercise price of $2.68 per share. Our outstanding options and warrants could adversely affect our 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 we may be able to obtain additional capital through a new offering of securities on terms more favorable to us 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 our common stock without assuming the risk of ownership. To the extent the trading price of our common stock at the time of exercise of any such options or warrants exceeds the exercise price, such exercise will also have a dilutive effect on our stockholders. Many of our outstanding warrants contain anti-dilution provisions pertaining to dividends or distributions with respect to our common stock. Our outstanding warrants to purchase approximately 1.4 million shares also contain anti-dilution provisions that are triggered upon any issuance of securities by us below the prevailing market price of our common stock. In the event that these anti-dilution provisions are triggered by us in the future, we would be required to reduce the exercise price, and increase the number of shares underlying, those warrants, which would have a dilutive effect on our stockholders.

As of October 31, 2007, we had registered with the SEC for resale by the holders a total of approximately 89 million outstanding shares of our common stock and approximately 27.7 million shares of our common stock issuable upon exercise of 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 our common stock.

We May Issue Preferred Stock in the Future, and the Terms of the Preferred Stock May Reduce the Value of Our Common Stock

We are authorized to issue up to 5,000,000 shares of preferred stock in one or more series. Our board of directors may determine the terms of future preferred stock offerings without further action by our stockholders. If we issue preferred stock, it could affect your rights or reduce the value of our outstanding 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 our ability to merge with or sell our assets to a third party.

We May Experience Volatility in Our Stock Price, Which May Adversely Affect the Trading Price of Our Common Stock

The market price of our common stock has ranged from $1.61 to $5.49 per share during the 52-week period ended November 21, 2007, and 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 us or our competitors.

Changes in our relationship with our licensors and other strategic partners.

Changes in our ownership or other relationships with RXi.

Our quarterly operating results.

Developments in patent or other technology ownership rights.

Public concern regarding the safety of our products.

Government regulation of drug pricing.

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

NOTE ON FORWARD-LOOKING STATEMENTS

Some of the statements contained or incorporated by reference in this prospectus or in the prospectus supplement may include forward-looking statements that reflect our current views with respect to our research and development activities, business strategy, business plan, financial performance and other future events. These statements include forward-looking statements both with respect to us, specifically, and the biotechnology sector, in general. We make these statements pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Statements that include the words expect, intend, plan, believe, project, estimate, may, should, anticip similar statements of a future or forward-looking nature identify forward-looking statements for purposes of the federal securities laws or otherwise.

All forward-looking statements involve inherent risks and uncertainties, and there are or will be important factors that could cause actual results to differ materially from those indicated in these statements. We believe that these factors include, but are not limited to, those factors set forth under the caption Risk Factors in this prospectus and in any prospectus supplement and under the captions Business, Legal Proceedings, Management s Discussion and Analysis of Financial Condition and Results of Operations, Quantitative and Qualitative Disclosures About Market Risk and Controls and Procedures in our most recent Annual Report on Form 10-K, all of which you should review carefully. Please consider our forward-looking statements in light of those risks as you read this prospectus and the prospectus supplement. We undertake no obligation to publicly update or review any forward-looking statement, whether as a result of new information, future developments or otherwise.

If one or more of these or other risks or uncertainties materializes, or if our underlying assumptions prove to be incorrect, actual results may vary materially from what we anticipate. All subsequent written and oral forward-looking statements attributable to us or individuals acting on our behalf are expressly qualified in their entirety by this Note. Before purchasing any shares, you should consider carefully all of the factors set forth or referred to in this prospectus and in the prospectus supplement that could cause actual results to differ.

USE OF PROCEEDS

Unless we indicate otherwise in the prospectus supplement, we expect to use the net proceeds we receive from the sale of our common stock to augment our working capital and for general corporate purposes, including, but not limited to, product development activities, capital expenditures, potential acquisitions and other business opportunities. We may set forth in the prospectus supplement additional information on our intended use for the net proceeds received from the sale of any common stock sold pursuant to that prospectus supplement.

PLAN OF DISTRIBUTION

We may sell the shares of our common stock being offered hereby in one or more of the following ways from time to time:

through agents to the public or to investors;

to one or more underwriters for resale to the public or to investors;

in at the market offerings, within the meaning of Rule 415(a)(4) of the Securities Act of 1933, as amended, or the Securities Act, to or through a market maker or into an existing trading market, on an exchange or otherwise;

directly to investors; or

through a combination of these methods of sale.

We will set forth in a prospectus supplement the terms of an offering of shares of our common stock, including.

the name or names of any agents or underwriters;

the purchase price of the shares being offered and the proceeds we will receive from the sale;

any over-allotment options under which underwriters may purchase additional shares from us;

any agency fees or underwriting discounts and other items constituting agents or underwriters compensation;

the public offering price; and

any discounts or concessions allowed or reallowed or paid to dealers.

We may distribute the common stock from time to time in one or more transactions;

at a fixed price or prices, which may be changed;

at market prices prevailing at the time of sale;

at prices related to such prevailing market prices; or

at negotiated prices.

We may also, from time to time, authorize dealers, acting as our agents, to offer and sell common stock upon the terms and conditions set forth in the applicable prospectus supplement. We, or the purchasers of common stock for whom the underwriters may act as agents, may compensate underwriters in the form of underwriting discounts or commissions, in connection with the sale of common stock. Underwriters may sell the common stock to or through dealers, and those dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters or commissions from the purchasers for whom they may act as agent. Unless otherwise indicated in a prospectus supplement, an agent will be acting on a best efforts basis and a dealer will purchase common stock as a principal, and may then resell the common stock at varying prices to be determined by the dealer.

We will describe in the applicable prospectus supplement any compensation we will pay to underwriters or agents in connection with the offering of common stock, and any discounts, concessions or commissions allowed by underwriters to participating dealers. The dealers and agents participating in the distribution of common stock may be deemed to be underwriters, and any discounts and commissions received by them and any profit realized by them on resale of the common stock may be deemed to be underwriting discounts and commissions. We may enter into agreements to indemnify underwriters, dealers and agents against certain civil liabilities, including liabilities under the Securities Act and to reimburse these persons for certain expenses. We may grant underwriters who participate in the distribution of common stock we are offering under this prospectus an option to purchase additional shares to cover over-allotments, if any, in connection with the distribution.

To facilitate the offering of common stock, certain persons participating in the offering may engage in transactions that stabilize, maintain, or otherwise affect the price of the common stock. This may include over-allotments or short sales of the common stock, which involve the sale by persons participating in the offering of more common stock than we sold to them. In these circumstances, these persons would cover such over-allotments or short positions by making purchases in the open market or by exercising their over-allotment option, if any. In addition, these persons may stabilize or maintain the price of the common stock by bidding for or purchasing common stock in the open market or by imposing penalty bids, whereby selling concessions allowed to dealers participating in the offering may be reclaimed if common stock sold by them is repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the common stock at a level above that which might otherwise prevail in the open market. These transactions may be discontinued at any time.

Any underwriters who are qualified market makers on The Nasdaq Capital Market may engage in passive market making transactions in the securities on The Nasdaq Capital Market in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker s bid, however, the passive market maker s bid must then be lowered when certain purchase limits are exceeded.

Certain underwriters, dealers or agents and their associates may engage in transactions with and perform services for us in the ordinary course of our business.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Securities Exchange Act of 1934, or Exchange Act, and are required to file annual, quarterly and other reports, proxy statements and other information with the SEC. You may inspect and copy these reports, proxy statements and other information at the public reference facilities maintained by the SEC in Washington, D.C. (100 F Street NE, Room 1580, Washington, D.C. 20549). Copies of such materials can be obtained from the SEC s public reference section at prescribed rates. You may obtain information on the operation of the public reference rooms by calling the SEC at (800) SEC-0330 or on the SEC website located at http://www.sec.gov.

Our common stock is traded on the Nasdaq Capital Market under the symbol CYTR. Reports, proxy and information statements and other information concerning us also may be inspected at the offices of the National Association of Securities Dealers, Inc. located at 1735 K Street, N.W., Washington, D.C. 20006.

Information about us is also available at our website at www.cytrx.com; however, the information on our website is not a part of this prospectus.

INCORPORATION OF INFORMATION FILED WITH THE SEC

The SEC allows us to incorporate in this prospectus by reference information contained in documents that we file with the SEC, which means that we can disclose important information to you by referring you to those other documents. The information incorporated by reference is an important part of this prospectus, and documents that we file with the SEC after the date of this prospectus will automatically update and, where applicable, modify or supersede any information set forth or incorporated by reference in this prospectus.

We incorporate by reference in this prospectus the documents listed below:

Our Annual Report on Form 10-K for the year ended December 31, 2006.

Our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2007 and September 30, 2007, respectively, and our Quarterly Report, as amended, on Form 10-Q for the quarter ended June 30, 2007.

Our Current Reports on Form 8-K filed on January 9, 2007, January 6, 2007, February 5, 2007, February 6, 2007, February 21, 2007, February 28, 2007, April 2, 2007, April 3, 2007, April 18, 2007, April 20, 2007, April 24, 2007, May 1, 2007, May 21, 2007, May 22, 2007, July 25, 2007, August 10, 2007, August 31, 2007, September 12, 2007, September 28, 2007, October 30, 2007, October 31, 2007 and November 13, 2007, respectively;

The description of our common stock as described in our Registration Statement on Form 8-A filed under the Exchange Act on March 17, 1987 (File No. 0-15327), and any amendment or report filed for the purpose of updating any such description.

The description of our Series A Junior Participating Preferred Stock Purchase Rights as described in our Registration Statement on Form 8-A filed under the Exchange Act on April 17, 1997 (File No. 000-15327), and any amendment or report filed for the purpose of updating any such descriptions.

Any document that we file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus and before the termination of this offering (other than any portion of such documents that are not deemed filed under the Exchange Act in accordance with the Exchange Act and applicable SEC rules). Information in these subsequent SEC filings will be deemed to be incorporated by reference as of the date we make the filing.

You may obtain a copy of the foregoing documents from us at no cost by writing or calling us at the following address and telephone number: 11726 San Vicente Blvd., Suite 650 Los Angeles, California 90049, Attention: Corporate Secretary; (310) 826-5648.

LEGAL MATTERS

The validity of the shares being offered hereby has been passed upon for us by Troy & Gould Professional Corporation, Los Angeles, California. As of November 23, 2007, Troy & Gould Professional Corporation owned 70,000 shares of our common stock and warrants to purchase 7,146 shares of our common stock, as well as 20,000 shares of common stock of RXi.

EXPERTS

The consolidated financial statements, schedule and management s report on the effectiveness of internal control over financial reporting incorporated by reference in the Prospectus constituting a part of this Registration Statement have been audited by BDO Seidman, LLP, an independent registered public accounting

firm, to the extent and for the periods set forth in their reports (the report on the effectiveness of internal control over financial reporting expresses an adverse opinion on the effectiveness of the corporation s internal control over financial reporting as of December 31, 2006) incorporated herein by reference, and are incorporated herein in reliance upon such reports given upon the authority of said firm as experts in auditing and accounting.

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

We estimate that the expenses incurred in connection with the distribution described in this registration statement will be as set forth below. We will bear all of such expenses. The selling shareholders will bear any commissions and discounts attributable to sales of the shares being registered hereunder.

SEC registration fee	$ 3,070
Accounting fees and expenses	$ 15,000
Legal fees and expenses	$ 50,000
Miscellaneous	$ 1,930
Total	**$ 70,000**

ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Section 102(b)(7) of the Delaware General Corporation Law authorizes a corporation in its certificate of incorporation to eliminate or limit personal liability of directors of the corporation for violations of the directors fiduciary duty of care. However, directors remain liable for breaches of duties of loyalty, failing to act in good faith, engaging in intentional misconduct, knowingly violating a law, paying a dividend or approving a stock repurchase which was illegal under Delaware General Corporation Law Section 174 or obtaining an improper personal benefit. In addition, equitable remedies for breach of fiduciary duty of care, such as injunction or recession, are available.

Our certificate of incorporation eliminates the personal liability of the members of our board of directors to the fullest extent permitted by law. Specifically, Article Eleven of our certificate of incorporation provides as follows: A director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director s duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the Delaware General Corporation Law, or (iv) for any transaction from which the director derived any improper personal benefit. If the Delaware General Corporation Law is amended after approval by the stockholders of this Article to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the corporation shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law as so amended.

Any repeal or modification of the foregoing paragraph by the stockholders of the corporation shall not adversely affect any right or protection of a director of the corporation existing at the time of such repeal or modification.

In addition, our certificate of incorporation and bylaws provide for indemnification of our officers and directors to the fullest extent permitted by law. In particular, Article Nine our certificate of incorporation provides as follows: The corporation shall, to the fullest extent permitted by Section 145 of the General Corporation Law of the State of Delaware, as the same may be amended and supplemented, indemnify any and all persons whom it shall have power to indemnify under said section from and against any and all of the expenses, liabilities or other matters referred to in or covered by

said section, and the indemnification provided for herein shall not be deemed exclusive of any other rights to which those indemnified may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

Section 145 of the Delaware General Corporation Law empowers a corporation to indemnify any person who was or is party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he is or was a director, officer or agent of the corporation or another enterprise if serving at the request of the corporation. Depending on the character of the proceeding, a corporation may indemnify against expenses (including attorneys fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding if the person indemnified acted in good faith in respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. In the case of an action by or in the right of the corporation, no indemnification may be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine that despite the adjudication of liability such person is fairly and reasonably entitled to indemnity for such expenses which the court shall deem proper. Section 145 further provides that to the extent a director, officer, employee or agent of a corporation has been successful in the defense of any action, suit or proceeding referred to above or in the defense of any claim, issue or matter therein, he shall be indemnified against expenses (including attorneys fees) actually and reasonably incurred by him in connection therewith. Our bylaws permit it to purchase insurance on behalf of such person against any liability asserted against him and incurred by him in any such capacity, or arising out of his status as such, whether or not we would have the power to indemnify him against such liability under the foregoing provision of the bylaws.

CytRx Corporation holds an insurance policy covering directors and officers under which the insurer agrees to pay, with some exclusions, for any claim made against our directors and officers for a wrongful act that they may become legally obligated to pay or for which we are is required to indemnify our directors or officers.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, or the Securities Act, may be permitted for directors, officers and controlling persons of the Company under the above provisions, or otherwise, the Commission has advised us that, in its opinion, such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Company of expenses incurred or paid by a director, officer or controlling person of the Company in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Company will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

ITEM 16. EXHIBITS

The exhibits listed in the accompanying Exhibit Index are filed or incorporated by reference as part of this registration statement.

ITEM 17. UNDERTAKINGS

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) to include any prospectus required by section 10(a)(3) of the Securities Act;

(ii) to reflect in the prospectus any facts or events arising after the effective date of this registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement; provided, however, that (i) and (ii) do not apply if the registration statement is on Form S-3, and the information required to be included in a post-effective amendment is contained in periodic reports filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934, or the Exchange Act, that are incorporated by reference in the registration statement;

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof; and

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant s annual report pursuant to section 13(a) or section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan s annual report pursuant to section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement on Form S-3 to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Los Angeles, State of California, on November 23, 2007.

CYTRX CORPORATION

By: /s/ STEVEN A. KRIEGSMAN
Steven A. Kriegsman
President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Steven A. Kriegsman his true and lawful attorney-in-fact and agent, with full power of substitution, for him in any and all capacities, to sign this Registration Statement and any amendments hereto, and to file the same, with exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as he might do or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his substitute or substitutes, may do or cause to be done by virtue hereof.

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

Signature	Title	Date
/s/ STEVEN A. KRIEGSMAN Steven A. Kriegsman	President and Chief Executive Officer and Director	November 23, 2007
/s/ MITCHELL K. FOGELMAN Mitchell K. Fogelman	Chief Financial Officer and Treasurer (principal financial and accounting officer)	November 23, 2007
/s/ LOUIS J. IGNARRO Louis J. Ignarro, Ph.D	Director	November 23, 2007
/s/ MAX LINK Max Link	Director	November 23, 2007
/s/ JOSEPH RUBINFELD Joseph Rubinfeld, Ph.D	Director	November 23, 2007
/s/ MARVIN R. SELTER Marvin R. Selter	Director	November 23, 2007

/s/ RICHARD L. WENNEKAMP	Director	November 23, 2007
Richard L. Wennekamp		

EXHIBIT INDEX

The following exhibits are filed herewith or incorporated by reference as a part of this Registration Statement:

Exhibit Number	Description
1.1	Form of Underwriting Agreement.*
3.1	Restated Certificate of Incorporation.
3.2	Restated By-Laws (incorporated by reference to the Registrant s Registration Statement on Form S-8 (File No. 333-37171) filed on July 21, 1997).
4.1	Shareholder Protection Rights Agreement dated April 16, 1997 between CytRx Corporation and American Stock Transfer &Trust Company as Rights Agent (incorporated by reference to the Registrant s Current Report on Form 8-K filed April 17, 1997).
4.2	Amendment No. 1 to Shareholder Protection Rights Agreement (incorporated by reference to the Registrant s Annual Report on Form 10-K filed on March 27, 2001).
4.3	Amendment No. 2 to Shareholder Protection Rights Agreement (incorporated by reference to the Registrant s Annual Report on Form 10-K filed on April 2, 2007).
5.1	Opinion of Troy & Gould Professional Corporation.
23.1	Consent of Troy & Gould Professional Corporation (included in Exhibit 5.1).
23.2	Consent of BDO Seidman, LLP.
24.1	Power of Attorney (included on Page II-4).

* To be filed as an exhibit to a Current Report on Form 8-K and incorporated herein by reference.