CYTRX CORP
Form 10-K
March 15, 2010

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 10-K

(Mark One)

R ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2009
or

£ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission file number 0-15327

CytRx Corporation
(Exact name of Registrant as specified in its charter)

Delaware	58-1642740
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
11726 San Vicente Blvd, Suite 650, Los Angeles, California	90049
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (310) 826-5648

_____

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of exchange on which registered

Common Stock, $0.001 par value per share	The NASDAQ Capital Market
Series A Junior Participating Preferred Stock Purchase Rights	

Securities Registered Pursuant to Section 12(g) of the Act:
None

Indicate by check mark if the Registrant is a well-known seasoned issuer (as defined in Securities Act Rule 405). Yes £ No R

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934.
Yes £ No R

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months and (2) has been subject to such filing requirements for the past 90 days. Yes R No £

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes £ No £

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. R

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

Large accelerated filer £	Accelerated filer R	Non-accelerated filer £ (Do not check if a smaller reporting company)	Smaller reporting company £

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes £ No R

Based on the closing price as reported on The Nasdaq Capital Market, the aggregate market value of the Registrant's common stock held by non-affiliates on June 30, 2009 (the last business day of the Registrant's most recently completed second fiscal quarter) was approximately $102.0 million. Shares of common stock held by directors and executive officers and their respective affiliates have been excluded from this calculation, because such stockholders may be deemed to be "affiliates" of the Registrant. This is not necessarily determinative of affiliate status for other purposes. The number of outstanding shares of the Registrant's common stock as of March 12, 2010 was 108,908,105, exclusive of treasury shares.

CYTRX CORPORATION
2009 ANNUAL REPORT ON FORM 10-K

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“SAFE HARBOR” STATEMENT

Some of the information contained in this Annual Report may include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. We base these forward-looking statements on our current views with respect to our research and development activities, business strategy, business plan, financial performance and other matters, both with respect to us, specifically, and the biotechnology sector, in general. Statements that include the words “expect,” “intend,” “plan,” “believe,” “project,” “estimate,” “may,” “should,” “anticipate,” “will” and simi of a future or forward-looking nature identify forward-looking statements for purposes of the federal securities laws or otherwise, but the absence of these words does not necessarily mean that a statement is not forward-looking.

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 in the sections entitled “Business,” “Risk Factors,” “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 this Annual Report, all of which you should review carefully. Please consider our forward-looking statements in light of those risks as you read this Annual Report. We undertake no obligation to publicly update or review any forward-looking statement, whether as a result of new information, future developments or otherwise, except as required by law.

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 the cautionary language above. You should consider carefully all of the factors set forth or referred to in this Annual Report that could cause actual results to differ.

PART I

Item 1. BUSINESS

In this Annual Report, we sometimes refer to CytRx Corporation as "CytRx," to our former subsidiary, RXi Pharmaceuticals Corporation, as "RXi," and to Innovive Pharmaceuticals, Inc., which we acquired in September 2008, as "Innovive." References in this Annual Report to the "company," "we," "us" or "our" refer to CytRx, alone, unless otherw indicated.

COMPANY OVERVIEW

We are a biopharmaceutical research and development company engaged in the development of high-value human therapeutics, specializing in oncology. Our drug development pipeline includes clinical development of three product candidates for cancer indications, including three planned Phase 2 clinical trials for INNO-206 as a treatment for pancreatic cancer, gastric (stomach) cancer and soft tissue sarcomas, two Phase 2 proof-of-concept clinical trials with bafetinib in patients with high-risk B-cell chronic lymphocytic leukemia, or B-CLL, and patients with glioblastoma multiforme, and a registration study of tamibarotene for the treatment of acute promyelocytic leukemia, or APL. In addition to our core oncology programs, we are developing two drug candidates based on our molecular chaperone regulation technology. Our current business strategy for our molecular chaperone regulation technology is to seek one or more strategic partnerships, or a possible spin-out transaction. Apart from our drug development programs, we currently maintain a 36% equity interest in our former subsidiary, RXi.

We are a Delaware corporation, incorporated in 1985. Our corporate offices are located at 11726 San Vicente Boulevard, Suite 650, Los Angeles, California 90049, and our telephone number is (310) 826-5648.

OUR PRODUCT CANDIDATE PIPELINE

The following tables summarize our product candidates and their current or planned stage of development:

Technology	Product Candidate	Indication(s)	Stage of Development
Doxorubicin prodrug	INNO-2006	Pancreatic cancer	Phase II (1H10)
		Gastric (stomach) cancer	Phase II (2H10)
		Soft tissue sarcomas	Phase II (2H10)
Tyrosine kinase inhibitor	Bafetinib	B-CLL	Phase II (1H10)
		Glioblastoma Multiforme	Phase II (2H10)
Synthetic retinoid	Tamibarotene	APL (acute promyelocytic leukemia)	Pivotal Phase II
Molecular chaperone regulation	Arimoclomol	ALS (amyotrophic lateral sclerosis, or Lou Gehrig's disease)	Phase II
Molecular chaperone regulation	Iroxanadine	Several potential indications	Phase I

OUR CLINICAL DEVELOPMENT PROGRAMS

Our current clinical development programs consist of our efforts to develop INNO-206 for gastric (stomach) cancer, pancreatic cancer and soft tissue sarcomas, bafetinib for B-CLL and glioblastoma multiforme, tamibarotene for APL,

and our molecular chaperone regulation program, which includes a planned Phase II clinical study of arimoclomol in ALS.

INNO-206. INNO-206 (formerly DOXO-EMCH) is a prodrug of the commonly prescribed chemotherapeutic agent doxorubicin. Specifically, it is the (6-Maleimidocaproyl) hydrazone of doxorubicin. Essentially, this chemical is doxorubicin (DOXO) attached to an acid sensitive linker (EMCH).

INNO-206 for the Treatment of Cancer. Anthracyclines are a class of drugs that are among the most commonly used agents in the treatment of cancer. Doxorubicin, the first anthracycline to gain FDA approval, has demonstrated efficacy in a wide variety of cancers including breast cancer, lung cancer, sarcomas, and lymphomas. However, due to the uptake of doxorubicin by various parts of the body, it is associated with side effects such as cumulative cardiotoxicity, myelosuppression (decreased production of blood cells by bone marrow), gastrointestinal disorders, mucositis (inflammation of the mucous membranes lining the digestive tract, including the mouth), stomatitis (inflammation of the mouth's soft tissue), and extravasation (the leakage of intravenous drugs from the vein into the surrounding tissue).

We believe INNO-206 has attributes that improve on native doxorubicin, including reduction of adverse events, improvement in efficacy and the ability to reach the tumor more quickly.

Our anticipated mechanism of action for INNO-206 is as follows:

- after administration, INNO-206 rapidly binds circulating albumin through the EMCH linker;
- circulating albumin preferentially accumulates in tumors, bypassing uptake by other non-tumor sites, including the heart, bone marrow and the gastrointestinal tract;
- once albumin-bound INNO-206 reaches the tumor, the acidic environment of the tumor causes cleavage of the acid sensitive linker; and
- free doxorubicin is released at the site of the tumor and is taken up by the cancer cells.

Pre-clinical data. In a variety of preclinical models, INNO-206 was superior to doxorubicin in its ability to increase the total doxorubicin dose, antitumor efficacy, and safety, including a reduction in cardiotoxicity. Animal studies conducted by INNO-206 inventor Dr. Felix Kratz, Department of Medical Oncology, Clinical Research, at the Tumor Biology Center in Freiburg, Germany, demonstrated statistically significant efficacy against breast, ovarian, pancreatic and small cell lung cancers growing in immunodeficient mice.

Clinical data. A Phase I study of INNO-206 that demonstrated safety and objective clinical responses in a variety of tumor types was completed in 2005 and presented at the March 2006 Krebskongress meeting in Berlin. In this study, single doses were administered every 3 weeks at up to six times the standard dosing of doxorubicin without an increase in side effects over those historically observed with doxorubicin. Twenty-three of 35 evaluable patients had either an objective clinical (partial) response or stable disease. Objective clinical responses were observed in patients with sarcoma, breast, and lung cancers.

Development Plan. Based on the objective clinical responses seen in the Phase I study, and preclinical data, we intend to initiate three Phase 2 clinical trials in 2010 of INNO-206 in patients with pancreatic cancer, gastric cancer and soft tissue sarcomas.

Bafetinib. Bafetinib (formerly INNO-406) is a novel drug developed by the Japanese pharmaceutical company Nippon Shinyaku, to overcome the limitations of Gleevec and second-line tyrosine kinase inhibitors in resistant chronic myelogenous leukemia, or CML. We have announced plans to develop bafetinib as a treatment for B-cell chronic lymphocytic leukemia (B-CLL) and glioblastoma multiforme (GBM), due to the potent and specific inhibitory properties of bafetinib against Lyn kinase, which is overexpressed in both B-CLL and GBM.

Bafetinib for the Treatment of B-CLL. B-CLL is the most common form of leukemia in adults in Western countries. More than 17,000 new cases of B-CLL are reported in the United States each year; however up to an estimated 40% of cases may not be reported due to under-diagnosis and lack of placement in cancer registries. Virtually all patients are older than 55 years at presentation, with an average age of 70 years. Patients in the high-risk B-CLL classification have a median overall survival of one to five years.

Pre-clinical Data. In mice-leukemia models, bafetinib has been shown to markedly extend the survival of animals implanted with Gleevec-resistant leukemic cells. In toxicology studies done in mice, rats, and dogs, bafetinib appeared to be safe and well-tolerated. A dose described in dogs at which no side effects were seen was used to calculate the starting dose in humans for our recently completed clinical trial.

Phase I Study. In November 2008, we announced that bafetinib demonstrated clinical responses in patients with CML in a Phase I clinical trial conducted in patients with CML and other leukemias that have a certain mutation called the Philadelphia Chromosome (Ph+) and are intolerant of or resistant to Gleevec and, in some cases, second-line tyrosine kinase inhibitors such as dasatinib (Sprycel®) and nilotinib (Tasigna®)). The clinical trial was designed to identify the optimal dose for possible future studies by escalating doses from 30 mg once per day to up to 480 mg twice per day in a total of 56 patients with Ph+ leukemias. Of the patients, 31 had CML in chronic phase (CML-CP), nine were in accelerated phase (CML-AP), seven were in blast phase (CML-BP), and nine had Ph+ acute lymphocytic leukemia. The clinical trial was conducted at seven clinical sites in the US, Germany, and Israel, with Hagop Kantarjian, M.D., Professor & Chairman, Department of Leukemia, The University of Texas, M.D. Anderson Cancer Center, serving as the Principal Investigator. A positive, dramatic decrease in the number of leukemia cells in the bone marrow was seen in 35% of the patients that were randomly chosen to begin their treatment with the optimal bafetinib dose of 240 mg twice per day.

The maximum tolerated dose was determined to be 240 mg given twice per day, based on evidence of increasing potential liver toxicity at higher doses. Common adverse events (observed in greater than 20% of patients in the 240 mg twice per day dose group) were gastrointestinal toxicity, swelling, and fatigue. There was no evidence of fluid accumulating around the lungs, or significant changes in a certain heart rhythm called QTc prolongation, which are serious side effects known to occur in patients treated with approved drugs for this indication. Approximately 13% of patients across all dose groups discontinued dosing due to unacceptable toxicity.

Development Plan. We recently announced plans to initiate in the first half of 2010 a Phase 2 proof-of-concept clinical trial to evaluate the efficacy and safety of bafetinib in patients with B-CLL. In the planned Phase 2 trial, approximately 20 patients who have failed treatment with first-line agents will be administered daily oral doses of bafetinib. Patients will be monitored for clinical response, time to disease progression and cancer progression-free survival. Based on trial results, we plan to conduct a larger comparative trial to further determine efficacy of this agent. We also plan to initiate a clinical Phase 2 proof of concept clinical trial with bafetinib as a treatment for glioblastoma multiforme, a common and aggressive type of primary brain tumor, in the second half of 2010.

Tamibarotene. Tamibarotene is an orally available, synthetic retinoid rationally designed to overcome resistance and avoid toxic side effects of differentiation therapy with all-trans retinoic acid, or ATRA, a component of the current first-line treatment for APL.

Tamibarotene for the treatment of APL. Acute promyelocytic leukemia, or APL, is a specific type of acute myeloid leukemia characterized by the t(15;17) translocation, which fuses the promyelocytic leukemia, or PML, gene on chromosome 15 to the retinoic acid receptor, or RARα gene on chromosome 17. This fusion causes abnormal cell growth.

Differentiation therapy with ATRA, is the basis for the treatment of APL. Differentiation therapy causes leukemic promyelocytes to mature and undergo cell death. Patients typically receive ATRA in combination with chemotherapy as the initial therapy, followed by anthracyline-based consolidation therapy designed to produce complete remission. The majority of patients treated this way generally experience a complete remission of disease. Current National Comprehensive Cancer Network guidelines recommend that patients then undergo one to two years of maintenance therapy with ATRA to prevent a recurrence. ATRA therapy is associated with several toxicities, the most serious of which, retinoic acid syndrome, or RAS. RAS, which occurs in up to 25% of patients treated with ATRA, is a serious and potentially fatal complication characterized by fever, dyspnea (breathing difficulties), weight gain, pulmonary infiltrates (abnormal accumulation in the lungs), and pleural or pericardial effusions (excess fluid around the lungs or heart).

Patients that initially respond to front-line therapy with ATRA plus chemotherapy sometimes relapse, and some of these patients fail to respond to a second course of treatment with ATRA. Currently, patients who fail ATRA-based therapy are treated with arsenic trioxide, a compound administered intravenously and associated with significant toxicity, including irregular heartbeat. There currently is no standard of care for patients who do not respond to ATRA and arsenic trioxide, or who respond but subsequently relapse. In 2007, the FDA granted Orphan Drug Designation and Fast Track Designation for the use of tamibarotene in patients with relapsed or refractory APL following treatment with ATRA and arsenic trioxide.

Tamibarotene was developed to overcome resistance to ATRA. In vitro, tamibarotene is approximately ten times more potent than ATRA at causing APL cells to differentiate and die. In addition, tamibarotene has a lower affinity for cellular retinoic acid binding protein, or CRABP, which we believe should allow for sustained plasma levels during administration. This may enhance tamibarotene's potential efficacy, because patients may be able to experience benefits from the drug over a longer period of time. Tamibarotene does not bind the RAR-γ receptor, the major retinoic acid receptor in the dermal epithelium, which should lessen the occurrence of skin toxicities.

Pre-clinical data. In preclinical models, tamibarotene was superior to ATRA in its ability to cause APL cells to differentiate and die. In the clinical setting, in vitro response to tamibarotene appeared predictive of clinical response, including activity in patients who had a poor response to ATRA.

Clinical data. Tamibarotene is approved in Japan under the brand name Amnolake for use in relapsed or refractory APL. The approval was based on data from two studies in Japanese patients. In the pivotal study, the effectiveness of orally administered tamibarotene was administered to 42 patients with APL, 39 of whom were evaluable for response. Patients included individuals who had never received treatment for APL and patients who had been previously treated with ATRA. Tamibarotene was administered orally at a dose of 6 mg/m2/day for eight weeks. The overall complete response rate in these patients was 61.5%. In patients who had a recurrence of APL following ATRA therapy, the response rate was 81%. RAS was reported in three patients, or 7.3% of the patient group.

Development Plan. There is currently a Special Protocol Assessment (SPA) in place with the FDA for a Phase 2 registration clinical trial, known as STAR-1, which is evaluating the efficacy and safety of tamibarotene as a third-line treatment for APL. The STAR-1 trial is ongoing and currently includes six clinical sites in the U.S. We recently reported that, of the 11 patients enrolled in the STAR-1 trial to date, three (27%) achieved a hematologic complete response, and four (36%) a morphologic leukemia-free state. Depending on the trial's outcome, this study, in combination with the data from the two Japanese studies, could form the basis of a new drug application, or NDA.

In addition, we have announced plans to develop tamibarotene, in combination with chemotherapy or arsenic trioxide (ATO), as a first-line treatment for APL. We have received favorable reviews on tamibarotene as a potential treatment for APL from key opinion leaders and have been working with notable clinicians in this field on trial design.

Among other preparatory activities, in September 2009, we initiated a dose escalation clinical trial with tamibarotene combined with TRISENOX® (arsenic trioxide) injection (marketed by Cephalon, Inc.) in patients with relapsed APL. An objective of this trial is to determine the appropriate combination therapy dose for evaluation as a potential first-line treatment for APL.

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

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

The following is a summary of our clinical development of arimoclomol for treating ALS:

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

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

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

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

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

The results from our Phase IIa trial and open-label extension clinical trial indicated that arimoclomol was safe and well tolerated in ALS volunteers, even at the highest administered dose. Arimoclomol was detected in participants' cerebral spinal fluid, demonstrating that it passed the so-called blood:brain barrier, and participants treated with arimoclomol experienced a statistically significant decrease in adverse events of weakness compared with the placebo group.

Phase IIb efficacy trial. In December 2009, the FDA accepted a revised protocol for an ascending dose efficacy trial to evaluate the safety and efficacy in ALS patients at up to 400 mg administered orally three times daily. The clinical trial protocol accepted by the FDA is a tiered, placebo-controlled, double-blind ascending dose study. The study is designed to test progressive groups, each with between 20 and 30 ALS patients over a three-month treatment period. Fifteen patients would receive a combination of arimoclomol at various dose levels and riluzole at a fixed dose of 50 mg twice daily, with between five and 15 ALS patients receiving placebo and riluzole at the same fixed dose. The first group would receive arimoclomol 100 mg capsules three times daily. Every four weeks, another group of ALS patients would begin three-month testing with six patients receiving arimoclomol dosing three times daily at a 75 mg per dose increase from the prior group. The maximum dose in the protocol allows for testing arimoclomol at 400 mg three times daily. An independent safety monitoring board would review safety results prior to initiating each consecutive increase in dosage level.

Other Clinical Development. In February 2009, a Phase II/III adaptive clinical trial commenced to study arimoclomol in a subset of patients with the inherited or familial form ALS. Patients with familial ALS (fALS) who harbor certain mutations in the superoxide dismutase-1 (SOD1) gene suffer from a rapidly progressing form of the disease. The clinical trial is being financially supported by grants from the ALS Association and the U.S. Food and Drug Administration's (FDA's) Office of Orphan Products Development (OOPD), and we are supplying the drug and allowing the sponsor to reference our Investigational New Drug Application for regulatory purposes.

Arimoclomol for recovery from stroke. Stroke results from an acute loss of normal blood flow to the brain caused most often by a blockage in a blood vessel (ischemic) or due to leaking of blood from a vessel (hemorrhagic). According to the American Heart Association: stroke is the third leading cause of death and the number one cause of long-term disability in the U.S.; between 50% and 70% of stroke survivors regain functional independence, but between 15% and 30% are permanently disabled and 20% require institutional care within three months after stroke; and the direct and indirect stroke cost in the U.S. totaled approximately $58 billion in 2006.

After the normal flow of blood is restored to the brain, post-stroke neurological function continues to decline. We believe that this continuing decline in neurological function is the consequence of mis-folded protein aggregates generated as a result of oxygen deprivation during the original event. Preclinical efficacy studies completed by us in April 2007 indicated that arimoclomol accelerated the time to recovery, and improved recovery, in experimental animal models of stroke. These results were obtained even when arimoclomol was administered as long as 48 hours after onset.

Arimoclomol for the treatment of cancer. Through research conducted in our former San Diego laboratory, we have identified preclinical pipeline compounds that inhibit, rather than amplify, molecular chaperone proteins. These early stage compounds are potential oncology therapeutics because cancer cells by their very nature generate large amounts of toxic, misfolded proteins and are far more dependent upon the activity of molecular chaperone proteins for survival than are normal cells. Because several of these compounds have already been shown to selectively kill cancer cells and spare normal cells in tissue culture, they represent a novel approach to cancer therapeutics with the potential of having relatively large therapeutic indices.

Iroxanadine. Iroxanadine also is an orally-administered small-molecule product candidate. We believe it functions by stimulating the molecular chaperone protein response in the endothelium, the thin layer of cells that line the interior

surface of human blood vessels.

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

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

In Phase I clinical trials in healthy volunteers and Phase II clinical trials in patients with chronic high blood pressure conducted prior to our acquisition of iroxanadine, the drug candidate was shown to be safe and well-tolerated and demonstrated significant improvement in the function of endothelial cells in the brachial artery, a major blood vessel of the upper arm.

Strategic Plans for Molecular Chaperone Assets. We intend to seek a partner for the development of arimoclomol and iroxanadine for all indications on a worldwide basis. We are also exploring the possibility of a spin-out transaction to accelerate the development of our molecular chaperone assets.

Other Technologies

Our other current technologies 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. We currently have no plans for development of these technologies.

Our Separation from RXi Pharmaceuticals Corporation

Until early 2008, we owned approximately 85% of the outstanding shares of common stock of RXi and our financial statements, including our financial statements as of and for the year ended December 31, 2007, included the consolidated financial condition and results of operations of RXi. On February 14, 2008, our board of directors declared a dividend of one share of RXi common stock for each approximately 20.05 outstanding shares of our common stock, which was paid on March 11, 2008 and which reduced our ownership of RXi shares to less than 50%. As a result, our financial statements since March 11, 2008 no longer consolidate the financial condition and results of operation of RXi, but instead reflect our ongoing investment in RXi based on the equity method of accounting. As of March 12, 2010, we owned approximately 36% of the outstanding shares of RXi common stock.

We are party to a letter agreement with RXi and some of RXi's current stockholders under which we are entitled to 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. 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 the letter agreement with RXi, we agreed to 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 further agreed to approve of actions that may be adopted and recommended by the RXi board of directors to facilitate any future financing by RXi.

Manufacturing

We have no capability to manufacture supplies of any of our products, and rely on third-party manufacturers to produce materials needed for research and clinical trials. We have contracted with various contract manufacturing facilities for supply of our active pharmaceutical ingredient, or API, for our product candidates. Pursuant to our license with TMRC Co., Ltd., or TMRC, relating to tamibarotene, TMRC will provide us with tamibarotene at a fixed price and in a quantity and quality sufficient to meet our clinical and commercial needs.

To be commercialized, our products also must be capable of being manufactured in commercial quantities in compliance with stringent regulatory requirements and at an acceptable cost. We 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 so we also have not demonstrated that any of our product candidates can be manufactured in commercial quantities in accordance with regulatory requirements or at an acceptable cost.

If our product candidates cannot be manufactured in suitable quantities and 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 may be adversely affected.

Marketing

Our tentative plan is to establish our own sales force and marketing capability in order to commercialize our oncology drug candidates, including INNO-206, bafetinib and tamibarotene, in the U.S. and to seek a marketing partner for commercialization in other territories.

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 regularly evaluate the patentability of new inventions and improvements developed by us or our collaborators, and, whenever appropriate, will endeavor to file U.S. 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 U.S. 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 amplification and other small molecule technology 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.

LICENSE AGREEMENTS

INNO-206

We succeeded to Innovive's agreement with KTB Tumorforschungs GmbH, or KTB, for the license of patent rights held by KTB for the worldwide development and commercialization of INNO-206. The license is exclusive and worldwide, applies to all product that may be subject to the licensed intellectual property and may be used in all fields of use. We may sublicense the intellectual property in our sole discretion. The agreement also grants us an option to include within the license any technology that is claimed or disclosed in the licensed patents and patent applications for use in the field of oncology and the right of first refusal on any license that KTB wishes to make to a third party regarding any technology that is claimed or disclosed in the licensed patents and patent applications for use in the field of oncology.

Under the agreement, we must make payments to KTB in the aggregate of $7.5 million upon meeting clinical and regulatory milestones up to and including the product's second final marketing approval. We also agreed to pay:

- commercially reasonable royalties based on a percentage of net sales (as defined in the agreement);
- a percentage of non-royalty sub-licensing income (as defined in the agreement); and

- milestones of $1 million for each additional final marketing approval that we might obtain.

In the event that we must pay a third party in order to exercise our rights to the intellectual property under the agreement, we will deduct a percentage of those payments from the royalties due KTB, up to an agreed upon cap. This deduction includes a percentage of any payments that might be required to be made by us to Bristol-Myers Squibb. Bristol-Myers Squibb holds a patent on technology that might be considered to block the patents and patent applications that are the subject of the agreement with KTB.

Under the agreement with KTB, we must use commercially reasonable efforts to conduct the research and development activities we determine are necessary to obtain regulatory approval to market the product in those countries that we determine are commercially feasible. Under the agreement, KTB is to use its commercially reasonable efforts to provide us with access to suppliers of the API of the product on the same terms and conditions as may be provided to KTB by those suppliers.

The agreement will expire on a product-by-product basis upon the expiration of the subject patent rights. We have the right to terminate the agreement on 30 days notice, provided we pay a cash penalty to KTB. KTB may terminate the agreement if we are in breach and the breach is not cured within a specified cure period or if we fail to use diligent and commercial efforts to meet specified clinical milestones.

Bafetinib

We likewise succeeded to Innovive's exclusive, worldwide (with the exception of Japan) royalty-bearing license agreement with Nippon Shinyaku, including the right to grant sublicenses, for the intellectual property relating to bafetinib in all fields. The license agreement will expire on a country-by-country basis upon the expiration of the subject patent rights. The bafetinib license covers two Patent Cooperation Treaty, or PTC, applications filed in 2003 and 2004, respectively.

Under the agreement, we are obliged to pay Nippon Shinyaku an aggregate of $13.35 million (including $5 million upon the product's initial final marketing approval) upon the achievement of clinical and regulatory milestones up to and including approvals in the U.S. and Europe. We also will be obliged to pay:

- commercially reasonable royalties based on a percentage of net sales (as defined in the Nippon Shinyaku license agreement), dependent on reaching certain revenue thresholds;
- annual minimum payments if sales of bafetinib do not meet specified levels; and
- a percentage of non-royalty sub-licensing income (as defined in the license agreement).

The agreement includes covenants that require us to, among other things, file an NDA by a specific date and use our commercially reasonable efforts to bring a licensed product to market. In the event that we breach a material term of the Nippon Shinyaku license agreement, Nippon Shinyaku has the option to terminate the agreement following the giving of notice and an opportunity to cure any such breach.

Tamibarotene

We also succeeded to Innovive's agreement with TMRC for the license of patent rights held by TMRC for the North American development and commercialization of tamibarotene. The license is exclusive, applies to all products that may be subject to the licensed intellectual property and may be used in the treatment of APL. We may sublicense the intellectual property in our sole discretion. The agreement also grants us an option to include within the license the use of the drug in other fields in oncology including multiple myeloma, myelodysplastic syndrome, and solid tumors.

Under the agreement, we must pay TMRC royalties based on net sales and make payments to TMRC in the aggregate of $4.165 million upon meeting clinical, regulatory, and sales milestones up to and including the first commercial sale of the product for the treatment of APL.

Under the agreement, we must use commercially reasonable efforts to conduct the research and development activities we determine are necessary to obtain regulatory approval to market the product in those countries in North America

that we determine are commercially feasible.

The agreement will expire upon the expiration of the subject patent rights, or 15 years from the date of first commercial sale of product in North America, whichever is later. The agreement may be terminated if either party is in breach and the breach is not cured within a required amount of time. We may also terminate the agreement in the event of a material change in the safety profile of the technology that makes continued development impossible.

Under the merger agreement by which we acquired Innovive, we agreed to pay the former Innovive stockholders up to $1.01 per Innovive share of future earnout merger consideration, subject to our achievement of specified net sales under the Innovive license agreements. The earnout merger consideration, if any, will be payable in shares of our common stock, subject to specified conditions, or, at our election, in cash or by a combination of shares of our common stock and cash. Our common stock will be valued for purposes of any future earnout merger consideration based upon the trading price of our common stock at the time the earnout merger consideration is paid.

Competition

INNO-206 is a prodrug of doxorubicin, a widely used anti-cancer drug. Doxorubicin is part of the anthracycline class of chemotherapy agents. Anthracyclines, many of which are generic including doxorubicin, have been used throughout the world to treat various cancers for several decades. Due to their track record of broad anti-cancer activity, new types of anthracyclines and modified or reformulated versions continue to be developed to overcome toxicities which limit the use of these drugs.

INNO-206 is a chemically modified version of doxorubicin that incorporates an acid sensitive linker technology to improve targeting to the tumor. We believe that the albumin-binding ability of INNO-206 will allow the compound to overcome many of the side effect issues typically associated with anthracyclines. We also believe that using albumin as a targeted carrier will allow for higher dosing and greater efficacy.

Soft tissue sarcoma patients are typically treated with surgery followed by radiation therapy. Doxorubicin is the only approved drug for treating soft tissue sarcoma and is often used in combination with radiation. The National Comprehensive Cancer Network also includes the use of ifosfamide, epirubicin, Eli Lilly's Gemzar, dacarbazine and liposomal doxorubicin marketed in the US as Doxil by Johnson & Johnson. For patients ineligible for surgery, radiation and/or chemotherapy is the only option. Based on both human and animal data, we believe we can give 5-8 times the amount of doxorubicin with administration of INNO-206. Other approaches to treating soft tissue sarcoma are in late stage clinical development. These include ridaforolimus being developed by Ariad Pharmaceuticals and Merck & Co., GlaxoSmithKline's pazopanib, Sanofi-Aventis' AVE8062, Threshhold Pharmaceuticals's TH-302, and trabectedin being co-developed by Johnson and Johnson and PharmaMar.

Advanced gastric cancer patients are those that have failed both surgery and prior chemotherapy. They may or may not be suitable candidates for chemoradiation. These patients are typically treated with a variety of combination of approved drugs such as cisplatin, docetaxel, 5-FU, oxaliplatin, iriniotecan and paclitaxel. Epirubicin, an anthracycline, is part of several gastric cancer treatment regimens. We believe INNO-206 could be a potentially more effective anthracycline and potentially more effective in this setting.

Pancreatic cancer is one of the most lethal types of cancer and current treatment options have limited benefit due to the rapid progression of this cancer. Patients are typically treated with surgery, radiation and chemotherapy. Eli Lilly's Gemzar is currently approved for the first line treatment of locally advanced or metastatic pancreatic cancer. It is also indicated for the use in patients who have received prior treatment with 5-FU. OSI Pharmaceuticals' Tarceva was approved in 2005 for the use in combination with Gemzar. The NCCN believes the best management for these patients is in a clinical trial. Because of the tremendous unmet need for these patients, many companies are developing new drugs to treat pancreatic cancer. Late stage drugs in clinical trials include Abraxane by Abraxis BioScience, AGS-1C4D4 by Astellas Pharma Inc., TNFerade™ by GenVec, and S-1 by Sanofi-Aventis.

There are currently three marketed competitors to bafetinib (formerly INNO-406) in the CML market, Gleevec®, Sprycel® and Tasigna®. Gleevec is approved for treatment of newly diagnosed adult patients with Philadelphia chromosome–positive chronic myeloid leukemia (Ph+ CML) in the chronic phase and patients with Ph+ CML in blast crisis (BC), accelerated phase (AP), or in the chronic phase (CP) after failure of interferon-alpha therapy. Sprycel®

and Tasigna® are approved for Gleevec-resistant CML. Because of the highly competitive nature of the CML market including drug candidates in development, CytRx plans to develop bafetinib initially in cancers other than CML. CytRx has selected B-cell chronic lymphocytic leukemia (B-CLL) and glioblastoma multiforme due to the potent and specific inhibitory properties of bafetinib against Lyn kinase. Lyn kinase is a member of the Src family of kinases which are known to be involved in cell growth. Lyn kinase is overexpressed in both B-CLL and glioblastoma multiforme (GBM).

We are unaware of any compounds in development that target Lyn kinase. We plan to develop bafetinib as a treatment for B-CLL patients that have failed first-line therapy. There are several drugs approved for the treatment of CLL. First-line therapy for CLL includes a variety of combination therapies including fludarabine, cyclophosphamide, Rituxan® and Campath®. Treatment for relapsed or refractory CLL includes several chemotherapy regimens including CHOP, CFAR, hyperCFAD and OFAR in addition to single agents including GlaxoSmithKline's ArzerraTM. Arzerra was approved in October 2009 for CLL patients who are refractory to treatment with fludarabine and Campath.

Current therapy for glioblastoma multiforme, the most common form of brain cancer, is surgery followed by radiation therapy and chemotherapy. Merck's Temodar® is approved for treating newly diagnosed GBM concomitantly with radiotherapy and then as a maintenance treatment. Roche's Avastin was approved in May 2009 for treatment of recurrent GBM. We believe that bafetinib's ability to selectively inhibit Lyn kinase and to penetrate the brain in an animal model of cancer will be an effective treatment for second-line therapy in GBM.

To our knowledge, there are no competitors in clinical development for refractory APL. Currently, treatment of APL is based on induction and maintenance therapy with ATRA and chemotherapy (typically idarubicin). ATRA and idarubicin are both generic compounds. Arsenic trioxide, currently marketed by Cephalon, is approved for use in patients who have relapsed after ATRA-based therapy in APL. There are no FDA-approved therapies for patients who have failed arsenic trioxide. In practice, it appears that patients who fail arsenic trioxide are retreated with ATRA or receive Mylotarg, which is marketed by Pfizer Inc.

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

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 U.S. and other developed countries extensively regulate the preclinical and clinical testing, manufacturing, labeling, storage, record-keeping, advertising, promotion, export, marketing and distribution of drugs and biologic products. The FDA, under the Federal Food, Drug, and Cosmetic Act, the 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, we must, among other requirements, submit data supporting safety and efficacy for the intended indication as well as detailed information on the manufacture and composition of the product candidate. In most cases, this will require extensive laboratory tests and preclinical and clinical trials. The collection of these data, as well as the preparation of applications for review by the FDA 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. These 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.

The amount of time taken by the FDA for approval of an NDA 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 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 and to tamibarotene for the treatment of relapsed or refractory APL.

We anticipate that our products will be manufactured by our strategic partners, licensees or other third parties. Before approving an NDA, 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. 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 U.S. 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 U.S.

Employees

As of March 12, 2010, we had 15 employees, six of whom were engaged in clinical development activities and nine of whom were involved in management and administrative operations.

Available Information

We maintain a website at www.cytrx.com and make available there, free of charge, our periodic reports filed with the Securities and Exchange Commission, or SEC, as soon as is reasonably practicable after filing. The public may read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains a website at http:/www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers such as us that file electronically with the SEC. We post on our website our Code of Business Conduct and Ethics.

Item 1A. RISK FACTORS

An investment in our shares involves a high degree of risk. Prior to making a decision about purchasing our shares, you should carefully consider the risks and uncertainties and all other information contained in this Annual Report, 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 SEC. 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 occurs, 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 our ongoing expenditures for research and development of our product candidates and for general and administrative purposes and lack of significant recurring revenue. We incurred net losses of $4.8 million, $27.0 million, and $21.9 million for the years ended December 31, 2009, 2008 and 2007, respectively. We had an accumulated deficit as of December 31, 2009 of approximately $197.4 million. We are likely to continue to incur losses unless and until we are able to commercialize one or more of our product candidates. These losses, among other things, have had and will continue to have an adverse effect on our stockholders' equity and working capital. Because of the numerous risks and uncertainties associated with our product development efforts, we are unable to predict when we may become profitable, if at all. If we do not become profitable or are unable to maintain future profitability, the market value of our common stock will be adversely affected.

Because we have no source of significant recurring revenue, we must depend on financing to sustain our operations.

Developing products and conducting clinical trials require substantial amounts of capital. To date, we have relied primarily upon proceeds from sales of our equity securities, including securities of RXi, and the exercise of options and warrants to generate funds needed to finance our business and operations. We will need to raise additional capital to, among other things:

- fund our clinical trials and pursue regulatory approval of our existing and possible future product candidates;
- expand our research and development activities;
- finance our general and administrative expenses;

- acquire or license new technologies;
- prepare, file, prosecute, maintain, enforce and defend our patent and other proprietary rights; and
- develop and implement sales, marketing and distribution capabilities to successfully commercialize any product for which we obtain marketing approval and choose to market ourselves.

Our revenues were $9.5 million, $6.3 million and $7.5 million, respectively, for years ended December 31, 2009, 2008 and 2007, which included $9.4 million, $6.2 million and $7.2 million, respectively, of deferred revenue recognized from our sale in August 2006 of a one-percent royalty interest in worldwide sales of arimoclomol for the treatment of ALS to the privately-funded ALS Charitable Remainder Trust, or ALSCRT. Pursuant to an amendment signed between us and the beneficiary of the ALSCRT on August 6, 2009, we were released from all restrictions on the use of any proceeds previously paid to us in connection with the arrangement. As a result, we recognized $6.7 million as service revenue in the third quarter of 2009, which represented the remaining deferred revenue and previously un-recognized portion of the value received. We will have no significant recurring revenue unless we are able to commercialize one or more of our product candidates in development, which may require us to first enter into license or other strategic arrangements with third parties.

At December 31, 2009, we had cash and cash equivalents of approximately $9.9 million, marketable securities of $22.8 million, and held 5,768,881 shares of restricted common stock of RXi with a market value of $26.4 million based upon the closing price of the RXi common stock on that date as reported on The NASDAQ Capital Market. On July 27, 2009, we raised approximately $18.3 million, net of fees and expenses, in a registered direct offering, and on September 23, 2009, we raised approximately $1.2 million, net of fees, from the sale of 500,000 of our shares of common stock of RXi. Management believes that our current cash on hand, together with our marketable securities and proceeds from possible future sales of our securities or our shares of RXi common stock, will be sufficient to fund our operations for the foreseeable future. The estimate is based, in part, upon our currently projected expenditures for 2010 of approximately $18.0 million, which includes approximately $3.2 million for our clinical programs for INNO-206, approximately $1.6 million for our clinical programs for bafetinib, approximately $2.5 million for our clinical program for tamibarotene, approximately $1.4 million for our activities for arimoclomol, approximately $2.2 million for general operation of our clinical programs, and approximately $7.1 million for other general and administrative expenses. These projected expenditures are based upon numerous assumptions and subject to many uncertainties, and our actual expenditures may be significantly different from these projections.

If we obtain marketing approval as currently planned and successfully commercialize our product candidates, 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. Our ability to raise capital has been materially and adversely affected by the continuing poor economy. Despite the recover in the U.S. financial markets in 2009, the market remains severely depressed for private investment in public equities, or PIPEs, transactions on which we have relied for raising needed capital. These conditions also may materially and adversely affect the market for our RXi shares. 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. Failure to obtain adequate financing would adversely affect our ability to operate as a going concern. If we raise additional funds by issuing equity securities, dilution to stockholders may result and new investors could have rights superior to holders of the shares issued in this offering. In addition, debt financing, if available, may include restrictive covenants. If adequate funds are not available to us, we may have to liquidate some or all of our assets or to delay or reduce the scope of or eliminate some portion or all of our development programs or clinical trials. We also may have to license to other companies our product candidates or technologies that we would prefer to develop and commercialize ourselves.

If we do not achieve our projected development goals in the time frames we estimate, the commercialization of our products may be delayed and our business prospects may suffer. Our financial projections also may prove to be materially inaccurate.

From time to time, we estimate the timing of the accomplishment of various scientific, clinical, regulatory and other product development goals, which we sometimes refer to as milestones. These milestones may include the commencement or completion of scientific studies and clinical trials and the submission of regulatory filings. For example, we have stated in our most recent Annual Report incorporated by reference in this Annual Report supplement the expected timing of certain milestones relating to our INNO-206, bafetinib, tamibarotene and arimoclomol clinical development programs.

We also may disclose projected expenditures or other forecasts for future periods such as the statements above in this Annual Report supplement regarding our current projected expenditures for fiscal year 2010. These and other financial projections are based on management's current expectations and do not contain any margin of error or cushion for any specific uncertainties, or for the uncertainties inherent in all financial forecasting.

The actual timing of milestones and actual expenditures or other financial results can vary dramatically compared to our estimates, in some cases for reasons beyond our control. If we do not meet milestones or financial projections as announced from time to time, the development and commercialization of our products may be delayed and our business prospects may suffer. The assumptions management has used to produce these projections may significantly change or prove to be inaccurate. Accordingly, you should not unduly rely on any of these financial projections.

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

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

- difficulty in securing centers to conduct trials;
- difficulty in enrolling patients in conformity with required protocols or projected timelines;
- requirements for clinical trial design imposed by the FDA;
- unexpected adverse reactions by patients in trials;
- difficulty in obtaining clinical supplies of the product;
- changes in or our inability to comply with FDA or foreign governmental product testing, manufacturing or marketing requirements;
- regulatory inspections of clinical trials or manufacturing facilities, which may, among other things, require us or our manufacturers or licensees to undertake corrective action or suspend or terminate the affected clinical trials if investigators find them not to be in compliance with applicable regulatory requirements;
- inability to generate statistically significant data confirming the safety and efficacy of the product being tested;
- modification of the product during testing; and

- reallocation of our limited financial and other resources to other clinical programs.

It is possible that none of the product candidates we develop will obtain the 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 product candidate. Any analysis we perform on data from clinical activities is subject to confirmation and interpretation by regulatory authorities, which could delay, limit or prevent regulatory approval.

Furthermore, even if we obtain regulatory approvals, our products and the manufacturing facilities used to produce them will be subject to continual review, including periodic inspections and mandatory post- approval clinical trials by the FDA and other U.S. and foreign regulatory authorities. Any delay or failure in obtaining required approvals or to comply with post-approval regulatory requirements could have a material adverse effect on our ability to generate revenue from the particular product candidate. The failure to comply with any post-approval regulatory requirements also could also result in the rescission of the related regulatory approvals or the suspension of sales of the offending product.

Our current and planned clinical trials of our product candidates may fail to show that these product candidates are clinically safe and effective, or that they are better than alternative treatments.

INNO-206 was no more toxic than free doxorubicin in a Phase I clinical trial and showed limited biological responses against certain tumors. However, these conclusions may not be reproducible in larger clinical trials, including the planned Phase 2 clinical trials of INNO-206 as a treatment for pancreatic cancer, gastric cancer and soft tissue sarcomas.

Bafetinib demonstrated clinical responses in patients with CML in a Phase I clinical trial conducted in patients with CML and other leukemias that have a certain mutation called the Philadelphia Chromosome (Ph+) and are intolerant of or resistant to Gleevec and, in some cases, second-line tyrosine kinase inhibitors. However, bafetinib has never been tested in human clinical trials in patients with B-CLL or glioblastoma multiforme, and there are no assurances that it will be effective in those indications.

Tamibarotene has been shown to be safe, well tolerated, and efficacious in the Japanese population. However, it is possible that the response to the drug may be different in American or European populations. Furthermore, the efficacy studies that led to approval in Japan occurred prior to the advent of the use of arsenic trioxide, or ATO, for second line therapy. It is possible that the current use of ATO could alter the safety or efficacy of tamibarotene. The FDA might not accept the Japanese studies as a database for safety in the US. The majority of patients treated with ATRA as a first-line therapy way generally experience a complete remission of disease. As a result of the limited population of patients requiring third-line treatment for APL, there is no assurance that we will be successful in recruiting a sufficient number of patients into our ongoing clinical trial of tamibarotene as a third-line treatment for APL in order to demonstrate efficacy. In part for that reason, we have announced plans to develop tamibarotene, in combination with chemotherapy or arsenic trioxide (ATO), as a first-line treatment for APL. There is no assurance, however, that the FDA will accept a commercially reasonable strategy for first-line development with the FDA, and any FDA-required changes to our clinical development strategy could delay or increase the cost of the trial, adversely affect our ability to demonstrate the efficacy of tamibarotene in the trial or cause us not to pursue clinical development of tamibarotene for one or more of these considerations.

Our Phase IIa clinical trial and open-label extension clinical trial of arimoclomol for the treatment of ALS indicated that arimoclomol was safe and well-tolerated in patients, but the results of the open-label extension clinical trial indicated only a non-statistically significant trend of improvement in the revised ALS Functional Rating Scale, or ALSFRS-R, in the arimoclomol high-dose group as compared with reports of previous studies of untreated patients. This trial did not have a concurrent placebo control group, so we could draw no definitive conclusions with respect to efficacy. Further development of arimoclomal for ALS, as well as clinical development of iroxanadine for diabetic foot ulcers, would require significant additional testing, and it is possible that the favorable safety data we observed in earlier trials may not be reproduced in any later trials.

In December 2009, the FDA accepted our revised protocol for an ascending dose clinical trial of arimoclomol for the treatment of ALS. Although we are making preparations related to that clinical trial, while simultaneously seeking potential strategic partners to advance development and evaluating the potential for a spin-off transaction for our

molecular chaperone assets, it is possible that we will further amend the clinical trial protocol, or elect not to proceed with further development of some or all of our molecular chaperone assets, as a result of future business or market conditions, capital constraints, an inability to secure a partnership or other factors. The planned clinical trial includes the administration of arimoclomol at ascending doses, but there are no assurances that arimoclomol will prove safe at higher doses.

Later trials also may not yield statistically significant data indicating that these product candidates are clinically effective. Accordingly, we, or any development partners, may ultimately be unable to provide the FDA with satisfactory data on clinical safety and efficacy sufficient to obtain FDA approval of INNO-206, tamibarotene, bafetinib, arimoclomol or iroxanadine for these indications.

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. Accordingly, we are dependent upon third-party manufacturers, or potential future strategic alliance partners, to manufacture these supplies. We have manufacturing supply arrangements in place with respect to a portion of the clinical supplies needed for the clinical development programs for INNO-206, tamibarotene and arimoclomol. However, we have no supply arrangements for the commercial manufacture of these product candidates or any manufacturing supply arrangements for any other potential product candidates, and we may not be able to secure needed 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.

If our product candidates cannot be manufactured in suitable quantities and 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 cannot be manufactured at an acceptable cost, the commercial success of our products may be adversely affected.

We may rely upon third parties in connection with the commercialization of our products.

The completion of the development of INNO-206, bafetinib and tamibarotene, and our molecular chaperone product candidates, as well as the marketing of these products, may require us to enter into strategic alliances, license agreements or other collaborative arrangements with other pharmaceutical companies under which those companies will be responsible for one or more aspects of the commercial development and eventual marketing of our products.

Our products may not 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 and may have to sell our rights in them to a third party or abandon their development altogether.

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, we may not obtain regulatory approvals as planned, if at all, and the timing of receipt or the amount of revenue from these arrangements may be materially and adversely affected. By entering into these arrangements rather than completing the development and then marketing these products on our own, the profitability to us of these products may decline.

We may be unable to protect our intellectual property rights, which could adversely affect our ability to compete effectively.

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. We will be able to protect our technologies from unauthorized use by third parties only to the extent that we have rights to valid and enforceable patents or other proprietary rights that cover them. Although we own or have rights to patents and patent applications directed to INNO-206, bafetinib and our molecular chaperone amplification technologies, these patents and applications may not prevent third parties from developing or commercializing similar or identical technologies. In addition, our patents may be held to be invalid if challenged by third parties, and our patent applications may not result in the issuance of patents.

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

Any litigation brought by us to protect our intellectual property rights 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 also rely on certain proprietary trade secrets and know-how, especially where we believe patent protection is not appropriate or obtainable. However, trade secrets and know-how are difficult to protect. Although we have taken measures to protect our unpatented trade secrets and know-how, including the use of confidentiality and invention assignment agreements with our employees, consultants and some of our contractors, it is possible that these persons may disclose our trade secrets or know-how or that our competitors may independently develop or otherwise discover our trade secrets and know-how.

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

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

If a third party claims that we infringe its proprietary rights, any of the following may occur:

- we may become involved in time-consuming and expensive litigation, even if the claim is without merit;
- we may become liable for substantial damages for past infringement if a court decides that our technology infringes a competitor’s patent;
- a court may prohibit us from selling or licensing our product without a license from the patent holder, which may not be available on commercially acceptable terms, if at all, or which may require us to pay substantial royalties or grant cross licenses to our patents; and
- we may have to redesign our product candidates or technology so that it does not infringe patent rights of others, which may not be possible or commercially feasible.

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

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

We intend to sell our products primarily to hospitals which receive reimbursement for the health care services they provide to their patients from third-party payors, such as Medicare, Medicaid and other domestic and international

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

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

- they are "incidental" to a physician's services,
- they are "reasonable and necessary" for the diagnosis or treatment of the illness or injury for which they are administered according to accepted standard of medical practice,
- they are not excluded as immunizations, and
- they have been approved by the FDA.

We are subject to intense competition, and we may not 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 industries are characterized by intense competition and rapid and significant technological advancements. Many companies, research institutions and universities are working in a number of areas similar to 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 us and 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 candidate 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; and
- take better advantage than us of other opportunities.

Companies that currently sell generic and proprietary compounds for the treatment of cancer and related diseases include, but are not limited to, Abraxis BioScience, Amgen, Sanofi-Aventis, Bayer, Bristol-Myers Squibb, Celgene, Cephalon, Genentech, Eli Lilly, Johnson & Johnson and Novartis. Alternative technologies are being developed to treat cancer and related diseases by numerous companies including Bristol-Myers Squibb, Eisai, Merck and Genentech, several of which are in advanced clinical trials. There also are FDA approved cancer therapies that are in the late stage of development by larger established companies for new cancer indications: Alimta (Eli Lilly), Avastin (Genentech), Eloxatin (Sanofi-Aventis), Erbitux (Bristol-Myers Squibb and Imclone Systems) and Tarceva (Genentech).

Soft tissue sarcoma patients are typically treated with surgery followed by radiation therapy. Doxorubicin is the only approved drug for treating soft tissue sarcoma and is often used in combination with radiation. The National Comprehensive Cancer Network also includes the use of ifosfamide, epirubicin, Eli Lilly's Gemzar, dacarbazine and liposomal doxorubicin marketed in the US as Doxil by Johnson & Johnson. For patients ineligible for surgery, radiation and/or chemotherapy is the only option. Other approaches to treating soft tissue sarcoma are in late stage clinical development. These include ridaforolimus being developed by Ariad Pharmaceuticals and Merck & Co., GlaxoSmithKline's pazopanib, Sanofi-Aventis' AVE8062, Threshhold Pharmaceuticals's TH-302, and trabectedin being co-developed by Johnson and Johnson and PharmaMar.

Advanced gastric cancer patients are typically treated with a variety of combination of approved drugs such as cisplatin, docetaxel, 5-FU, oxaliplatin, iriniotecan and paclitaxel. Epirubicin, an anthracycline, is part of several gastric cancer treatment regimens. We believe INNO-206 could be a potentially more effective anthracycline and potentially more effective in this setting.

Pancreatic cancer patients are typically treated with surgery, radiation and chemotherapy. Eli Lilly's Gemzar is currently approved for the first line treatment of locally advanced or metastatic pancreatic cancer. It is also indicated for the use in patients who have received prior treatment with 5-FU. OSI Pharmaceuticals' Tarceva was approved in 2005 for the use in combination with Gemzar. The NCCN believes the best management for these patients is in a clinical trial. Because of the tremendous unmet need for these patients, many companies are developing new drugs to treat pancreatic cancer. Late stage drugs in clinical trials include Abraxane by Abraxis BioScience, AGS-1C4D4 by Astellas Pharma Inc., TNFerade™ by GenVec, and S-1 by Sanofi-Aventis.

To our knowledge, there are no competitors in clinical development for refractory APL. Currently, treatment of APL is based on induction and maintenance therapy with ATRA and chemotherapy (typically idarubicin). ATRA and idarubicin are both generic compounds. Arsenic trioxide, currently marketed by Cephalon, is approved for use in patients who have relapsed after ATRA-based therapy in APL. There are no FDA-approved therapies for patients who have failed arsenic trioxide. In practice, it appears that patients who fail arsenic trioxide are retreated with ATRA or receive Mylotarg, which is marketed by Pfizer Inc.

There are currently three marketed competitors to bafetinib (formerly INNO-406) in the CML market, Gleevec®, Sprycel® and Tasigna®. Gleevec is approved for treatment of newly diagnosed adult patients with Philadelphia chromosome–positive chronic myeloid leukemia (Ph+ CML) in the chronic phase and patients with Ph+ CML in blast crisis (BC), accelerated phase (AP), or in the chronic phase (CP) after failure of interferon-alpha therapy. Sprycel® and Tasigna® are approved for Gleevec-resistant CML. Because of the highly competitive nature of the CML market including drug candidates in development, CytRx plans to develop bafetinib initially in cancers other than CML. We have selected B-cell chronic lymphocytic leukemia (B-CLL) and glioblastoma multiforme due to the potent and specific inhibitory properties of bafetinib against Lyn kinase. Lyn kinase is a member of the Src family of kinases which are known to be involved in cell growth. Lyn kinase is overexpressed in both B-CLL and glioblastoma multiforme (GBM).

There are several drugs approved for the treatment of CLL. First-line therapy for CLL includes a variety of combination therapies including fludarabine, cyclophosphamide, Rituxan® and Campath®. Treatment for relapsed or refractory CLL includes several chemotherapy regimens including CHOP, CFAR, hyperCFAD and OFAR in addition to single agents including GlaxoSmithKline's ArzerraTM. Arzerra was approved in October 2009 for CLL patients who are refractory to treatment with fludarabine and Campath.

Current therapy for glioblastoma multiforme, the most common form of brain cancer, is surgery followed by radiation therapy and chemotherapy. Merck's Temodar® is approved for treating newly diagnosed GBM concomitantly with radiotherapy and then as a maintenance treatment. Roche's Avastin was approved in May 2009 for treatment of

recurrent GBM. We believe that bafetinib's ability to selectively inhibit Lyn kinase and to penetrate the brain in an animal model of cancer will be an effective treatment for second-line therapy in GBM.

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

Any of these competing therapies could prove to be more effective than INNO-206, bafetinib, tamibarotene, or any future therapy of ours. 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 be required to pay substantial milestone and other payments relating to the commercialization of our products.

The agreement relating to our worldwide rights to INNO-206 provides for our payment of an aggregate of $7.5 million upon meeting specified clinical and regulatory milestones up to and including the product's second final marketing approval. We also will be obliged to pay:

- commercially reasonable royalties based on a percentage of net sales (as defined in the agreement);
- a percentage of non-royalty sub-licensing income (as defined in the agreement); and
- milestones of $1,000,000 for each additional final marketing approval that we might obtain.

Our agreement relating to our worldwide (except Japan) rights to bafetinib provides for our payment of an aggregate of $13.35 million (including $5 million upon the product's initial final marketing approval) upon the achievement of specified clinical and regulatory milestones up to and including approvals in the U.S. and Europe. We also will be obliged to pay:

- commercially reasonable royalties based on a percentage of net sales (as defined in the agreement), dependent on reaching certain revenue thresholds;
- annual minimum payments if sales of bafetinib do not meet specified levels; and
- a percentage of non-royalty sub-licensing income (as defined in the agreement).

The agreement under which we have North American rights to tamibarotene provides for our payment of royalties based on net sales of any products, as well as aggregate payments of $4.4 million upon meeting specified clinical, regulatory and sales milestones up to and including the first commercial sale of tamibarotene for the treatment of APL.

If we are required to pay any third party in order to exercise our rights under the agreement, we will deduct a percentage of those payments from the royalties due under the agreement, up to an agreed-upon cap.

Under the merger agreement by which we acquired Innovive, we agreed to pay the former Innovive stockholders a total of up to approximately $18.3 million of future earnout merger consideration, subject to our achievement of specified net sales under the Innovive license agreements. The earnout merger consideration, if any, will be payable in shares of our common stock, subject to specified conditions, or, at our election, in cash or by a combination of shares of our common stock and cash. Our common stock will be valued for purposes of any future earnout merger consideration based upon the trading price of our common stock at the time the earnout merger consideration is paid.

Our agreement by which we acquired rights to arimoclomol and our other molecular chaperone amplification product candidates provides for milestone payments by us upon the occurrence of specified 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. In addition, our agreement with the ALS CRT requires

us to pay a one-percent royalty interest on worldwide sales of arimoclomol for the treatment of ALS. Also, any future license, collaborative or other agreements we may enter into in connection with our development and commercialization activities may require us to pay significant milestone, license and other payments in the future.

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, if we obtain marketing approval and commercialize our products, by patients using our commercially marketed products. Even if the if one or more of our products is approved by the FDA, users may claim that such products caused unintended adverse effects. We maintain clinical trial insurance for our clinical trial of tamibarotene for APL, and we plan to seek to obtain similar insurance for any other clinical trials that we conduct. We also would seek to obtain product liability insurance covering the commercial marketing of our product candidates. We may not be able to obtain additional insurance, however, and any insurance obtained by us may prove inadequate in the event of a claim against us. Any claims asserted against us also may divert management’s attention from our operations, and we may have to incur substantial costs to defend such claims even if they are unsuccessful.

We may be unable to successfully acquire additional technologies or products. If we require additional technologies or products, our product development plans may change and the ownership interests of our shareholders, or our ownership interest in RXi, could be diluted.

We may seek to acquire additional technologies by licensing or purchasing such technologies, or through a merger or acquisition of one or more companies that own such technologies. We have no current understanding or agreement to acquire any technologies, however, and we may not be able to identify or successfully acquire any additional technologies. We also may seek to acquire products from third parties that already are being marketed or have been approved for marketing, although we have not currently identified any of these products. We do not have any prior experience in acquiring or marketing products approved for marketing and may need to find third parties to market any products that we might acquire.

Following our acquisition of Innovive in September 2008, we refocused our product development efforts on our oncology drug candidates, which we believe has the greatest near-term revenue potential. If we acquire additional technologies or product candidates, we may determine to make further changes to our product development plans and business strategy to capitalize on opportunities presented by the new technologies and product candidates.

We may determine to issue shares of our common stock, or to use shares of RXi common stock owned by us, or both, to acquire additional technologies or products or in connection with a merger or acquisition of another company. To the extent we do so, the ownership interest of our stockholders, or our ownership interest in RXi, or both, will be diluted accordingly.

Risks Associated With Our Investment in RXi

We may sell or dispose of some of our RXi shares, and may not be able to do so on attractive terms.

As of December 31, 2009, we held 5,768,881 shares of common stock of RXi, or approximately 36% of the outstanding shares of RXi common stock. RXi shares are listed on The NASDAQ Capital Market under the symbol "RXi." During the 12-month period ended December 31, 2009, the market prices for RXi shares as reported on The NASDAQ Capital Market fluctuated from a high of $7.57 per share to a low of $1.51 per share, and the market price of RXi shares and the value of our RXi shares may continue to experience significant volatility.

We intend to look for favorable opportunities to sell or otherwise dispose of our RXi shares in one or more transactions in order to obtain funds to carry on our operations or in connection with our acquisition of new technologies or products. There is no assurance, however, whether, or on what terms, we might be able to sell or dispose of our RXi shares. In addition, any sales or other disposition of RXi shares by us, or the possibility of such sales or disposition, could adversely affect the market price of our remaining RXi shares.

If RXi undertakes future financings, our ownership interest in RXi may be diluted.

Under our agreement with RXi, with some exceptions, we 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, our financial condition and other factors, we may be unwilling or unable to exercise our preemptive rights. We agreed to waive our preemptive rights in connection with a private placement by RXi in June 2008, which resulted in a reduction in our percentage ownership of RXi from approximately 49% to approximately 45%. In September, 2009, we sold 500,000 shares of RXi which reduced our percentage ownership further to approximately 36%. If RXi undertakes future issuances of equity securities, our percentage ownership interest in RXi may be diluted further.

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We do not control RXi, and the officers, directors and other RXi stockholders may have interests that are different from ours.

Although we currently own a significant portion of RXi's outstanding common stock, we do not control its management or operations. RXi has its own board of directors and management, who are responsible for the affairs and policies of RXi and its development plans. We have entered into letter agreements with RXi and certain of its 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 RXi's board of directors are independent of us. The board of directors and other stockholders of RXi may have interests that are different from ours, and RXi may engage in actions in connection with its business and operations that we believe are not in our best interests.

Risks Associated with Our Common Stock

Our anti-takeover measures 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. These provisions may discourage or prevent a person or group from acquiring us without the approval of our board of directors, even if the acquisition would be beneficial to our stockholders.

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 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 potential acquirers to lose interest in a 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, these 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.

We are subject to the anti-takeover provisions of Section 203 of the Delaware General Corporation Law, which may also prevent or delay a takeover of us that may be beneficial to you.

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 December 31, 2009, there were outstanding stock options and warrants to purchase approximately 24.4 million shares of our common stock at a weighted-average exercise price of $1.42 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. The issuance of shares upon the exercise of outstanding options and warrants will also dilute the ownership interests of our existing stockholders. Many of our outstanding warrants contain anti-dilution provisions pertaining to dividends with respect to our common stock. In the event that these anti-dilution provisions are triggered by us in the future, we would likewise 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.

We have registered with the SEC the resale by the holders of all or substantially all shares of our common stock issuable upon exercise of our 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 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 $0.23 to $2.98 per share since January 1, 2008, and it may continue to experience significant volatility from time to time. Our ability to raise capital has been materially and adversely affected by the continuing poor economy. Despite the recovery in the U.S. financial markets in 2009, the market remains depressed for private investment in public equity, or PIPEs, transactions on which we have relied for raising needed capital.

Other factors that may affect the market price of our common stock include the following:

- 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 of or other relationships with RXi;
- our quarterly operating results;
- litigation involving or affecting us;
- shortfalls in our actual financial results compared to our guidance or the forecasts of stock market analysts;
- developments in patent or other technology ownership rights;
- acquisitions or strategic alliances by us or our competitors;
- public concern regarding the safety of our products; and
- government regulation of drug pricing.

We do not expect to pay any cash dividends on our common stock.

We have not declared or paid any cash dividends on our common stock or other securities, and we currently do not anticipate paying any cash dividends in the foreseeable future. Because we do not anticipate paying cash dividends for the foreseeable future, our stockholders will not realize a return on their investment in our common stock except to the

extent of any appreciation in the value of our common stock. Our common stock may not appreciate in value, or may decline in value.

Item 2. PROPERTIES

We lease our headquarters in Los Angeles, California. The lease covers approximately 5,700 square feet of office space and expires in March 2015. This lease requires us to make monthly payments of approximately $23,243, subject to annual increases. We also lease approximately 10,000 square feet of office and laboratory space in San Diego, California, for $35,270 per month. The lease expires in October 2010. In May 2009, we substantially completed the initial phase of the research and development activities performed at the San Diego facility, and in November 2009, we signed sublease agreements with two parties to sublet the facility for the remainder of the term of the lease. Under those subleases, we are entitled to aggregate annual rent of approximately $16,900 per month.

We also acquired a sublease to approximately 5,526 square feet of office space at 555 Madison Avenue, New York, New York, in connection with our acquisition of Innovive in September 2008. This lease currently requires us to make annual payments of approximately $210,000, plus certain taxes and operating expenses, and it expires on August 30, 2012. On December 4, 2008, we sub-subleased the space through August 29, 2012. Under the sub-sublease, we are entitled to base annual rent of approximately $350,000, plus certain taxes and operating expenses.

Item 3. LEGAL PROCEEDINGS

We are occasionally involved in claims arising in the normal course of business. As of March 12, 2010, there were no such claims that we expect, individually or in the aggregate, to have a material adverse affect on us.

PART II

Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Our common stock is traded on The NASDAQ Capital Market under the symbol "CYTR." The following table sets forth the high and low sale prices for our common stock for the periods indicated as reported by The NASDAQ Capital Market:

	High	Low
Fiscal Year 2009:		
Fourth Quarter	$ 1.29	$ 0.71
Third Quarter	$ 1.72	$ 0.84
Second Quarter	$ 1.09	$ 0.34
First Quarter	$ 0.45	$ 0.24
Fiscal Year 2008:		
Fourth Quarter	$ 0.65	$ 0.23
Third Quarter	$ 0.68	$ 0.40
Second Quarter	$ 1.27	$ 0.61
First Quarter	$ 2.98	$ 1.00

Holders

On March 12, 2010, there were approximately 750 holders of record of our common stock. The number of record holders does not reflect the number of beneficial owners of our common stock for whom shares are held by brokerage firms and other nominees.

Dividends

We have not paid any cash dividends since our inception and do not contemplate paying any cash dividends in the foreseeable future. On March 11, 2008, we distributed to holders of our common stock approximately 36% of the outstanding shares of RXi on an approximate 1-for-20 basis.

Equity Compensation Plans

The following table sets forth certain information as of December 31, 2009, regarding securities authorized for issuance under our equity compensation plans:

	(a) Number of Securities	(b) Weighted-Average	Number of Securities Remaining Available for Issuance Under

Plan Category	to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	Exercise Price of Outstanding Options, Warrants and Rights	Equity Compensation Plans (Excluding Securities Reflected in Column (a))
Equity compensation plans approved by our security holders:			
2000 Long-Term Incentive Plan	7,907,090	$ 1.17	155,000
2008 Stock Incentive Plan	1,100,000	0.83	8,900,000
Equity compensation plans not approved by our security holders:			
Outstanding warrants (1)	15,418,178	1.57	—
Total	24,425,268	$ 1.58	9,055,000

(1) The warrants shown were issued in discreet transactions from time to time as compensation for services rendered by consultants, advisors or other third parties, and do not include warrants sold in private placement transactions. The material terms of such warrants were determined based upon arm's-length negotiations with the service providers. The warrant exercise prices approximated the market price of our common stock at or about the date of grant, and the warrant terms range from one to ten years from the grant date. The warrants contain customary anti-dilution adjustments in the event of a stock split, reverse stock split, reclassification or combination of our outstanding common stock and similar events and certain of the warrants contain anti-dilution adjustments triggered by other corporate events, such as dividends and sales of equity below market price.

Comparison of Cumulative Total Returns

The following line graph presentation compares cumulative total stockholder returns of CytRx with The NASDAQ Stock Market Index and the NASDAQ Pharmaceutical Index (the "Peer Index") for the five-year period from December 31, 2004 to December 31, 2009. The graph and table assume that $100 was invested in each of CytRx's common stock, the NASDAQ Stock Market Index and the Peer Index on December 31, 2004, and that all dividends were reinvested. This data was furnished by Zacks Investment Research.

Comparison of Cumulative Total Returns

	December 31,				
	2005	2006	2007	2008	2009
CytRx Corporation	73.57	136.42	202.84	31.11	116.16
NASDAQ Stock Market Index	102.12	112.73	124.73	74.87	108.83
NASDAQ Pharmaceutical Index	110.13	107.79	113.36	105.46	118.52

Recent Issuances of Unregistered Securities

During the three-month period ended December 31, 2009, we issued 50,000 shares of our common stock, and warrants to purchase a total of 800,000 shares of our common stock at exercise prices ranging from $1.10 to $4.00 per share, in connection with a consulting arrangement. The issuance of stock and warrants was exempt from registration under the Securities Act of 1933 pursuant to Section 4(2) of the Securities Act of 1933 and Regulation D under the Act.

Repurchase of Shares

We did not repurchase any of our shares during the three-month period ended December 31, 2009.

Item 6. SELECTED FINANCIAL DATA

General

The following selected financial data are derived from our audited financial statements. Our financial statements for 2009, 2008 and 2007 have been audited by BDO Seidman, LLP, our independent registered public accounting firm. These historical results do not necessarily indicate future results. When you read this data, it is important that you also read our financial statements and related notes, as well as the "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Risk Factors" sections of this Annual Report. Financial information provided below has been rounded to the nearest thousand.

	2009	2008	2007	2006	2005
Statement of Operations Data:					
Revenues					
Service revenue	$9,400,000	$6,166,000	$7,242,000	$1,859,000	$83,000
Licensing revenue	100,000	100,000	101,000	101,000	101,000
Grant revenue	—	—	116,000	106,000	—
Total revenues	$9,500,000	$6,266,000	$7,459,000	$2,066,000	$184,000
Deemed dividend for anti-dilution adjustments made to outstanding common stock warrants	—	(757,000)	—	(488,000)	(1,076,000)
Net loss applicable to common stockholders	$(4,800,000)	$(27,803,000)	$(21,890,000)	$(17,240,000)	$(16,169,000)
Basic and diluted loss per share applicable to common stock	$(0.05)	$(0.30)	$(0.26)	$(0.25)	$(0.28)
Balance Sheet Data:					
Cash, cash equivalents and marketable securities	$9,894,000	$25,042,000	$60,450,000	$30,381,000	$8,299,000
Total assets	$35,277,000	$28,324,000	$64,146,000	$31,636,000	$9,939,000
Total stockholders' equity	$28,348,000	$15,698,000	$40,224,000	$5,150,000	$7,208,000

Factors Affecting Comparability

On September 19, 2008, we purchased all of the common stock of Innovive Pharmaceuticals in a transaction that for accounting purposes is considered an asset acquisition. The fair value of Innovive's assets and liabilities at September 19, 2008, in millions of dollars, are presented below:

In-process research and development	$8.0
Leasehold interests	.1
Prepaid expenses	.3
Accounts payable	(6.1)
Net assets acquired through issuance of common stock	$2.3

As a result of the March 11, 2008 distribution by us to our stockholders of approximately 36% of the outstanding shares of RXi, we deconsolidated that previously majority-owned subsidiary. As part of the transaction, we deconsolidated $3.7 million of total assets and $4.6 million of total liabilities of RXi.

In connection with applicable antidilution adjustments to the price of certain outstanding warrants in March 2008, we recorded a deemed dividend of approximately $757,000. The deemed dividend was recorded as a charge to accumulated deficit and a corresponding credit to additional paid-in capital.

In July 2009, we completed a $20.0 million registered direct public offering of approximately 15.3 million shares of our common stock at a price of $1.31 per share and warrants to purchase an additional approximately 4.7 million shares of common stock at an exercise price of $1.70 per share. Net of investment banking commissions, advisory fees, legal, accounting and other fees related to the transaction, we received proceeds of approximately $18.3 million (without giving effect to any proceeds that we may receive upon future exercises of the warrants sold in the offering).

In April 2007, we completed a $37.0 million private equity financing in which we issued 8.6 million shares of our common stock at $4.30 per share. Net of investment banking commissions, legal, accounting and other expenses related to the transaction, we received approximately $34.2 million of proceeds.

In August 2006, we received approximately $24.5 million in marketable securities (which were sold by us for 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 a one percent royalty from worldwide sales of arimoclomol. We recorded the value received under the arrangement as deferred service revenue, which. we recognize using the proportional performance method of revenue recognition. In August 2009, we were released from all restrictions on the use of any As a result, we recognized in the third quarter $6.7 million of service revenue, representing all of the remaining deferred revenue and previously un-recognized portion of the value received in the arrangement with ALSCRT. During 2009 and 2008, we recognized approximately $9.4 million and $6.2 million, respectively, of service revenue related to this transaction, respectively.

Our Statements of Operations as of and for the years ended December 31, 2009, 2008, 2007 and 2006 reflect the impact of ASC 718 (previously SFAS No. 123(R), Share-Based Payment ("SFAS 123(R)")). In accordance with the modified prospective transition method, our results of operations for prior periods have not been restated to reflect the impact of ASC 718. Share-based compensation expense recognized under ASC 718 for the years ended December 31, 2009, 2008, 2007 and 2006 were $2.6 million, $2.1 million, $2.7 million and $1.2 million, respectively. As of December 31, 2009, there was $2.5 million of unrecognized compensation cost related to outstanding options granted to employees that is expected to be recognized as a component of our operating expenses through 2011. Compensation costs will be adjusted for future changes in estimated forfeitures.

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read together with the discussion under "Selected Financial Data" and our consolidated financial statements included in this Annual Report. This discussion contains forward-looking statements, based on current expectations and related to future events and our future financial performance, that involve risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of many important factors, including those set forth under the caption "Risk Factors" and elsewhere in this Annual Report.

Overview

CytRx Corporation

We are a biopharmaceutical research and development company engaged in the development of high-value human therapeutics, specializing in oncology. Our drug development pipeline includes clinical development of three product candidates for cancer indications, including three planned Phase 2 clinical trials for INNO-206 as a treatment for pancreatic cancer, gastric (stomach) cancer and soft tissue sarcomas, two Phase 2 proof-of-concept clinical trials with bafetinib in patients with high-risk B-cell chronic lymphocytic leukemia, or B-CLL, and patients with glioblastoma multiforme, and a registration study of tamibarotene for the treatment of acute promyelocytic leukemia, or APL. In addition to our core oncology programs, we are developing two drug candidates based on our molecular chaperone regulation technology, which aim to repair or degrade mis-folded proteins associated with disease. Apart from our drug development programs, we currently maintain a 36% equity interest in our former subsidiary, RXi.

In order to fund our business and operations, we have relied primarily upon sales of our equity securities, including proceeds received upon the exercise of options and warrants, and sales of our shares of RXi common stock. We also

have received limited payments from our strategic partners and licensees.

At December 31, 2009, we had cash and cash equivalents of approximately $9.9 million, marketable securities of $22.8 million and held 5,768,881 shares of restricted common stock of RXi with a market value of $26.4 million based upon the closing price of the RXi common stock on that date. On July 27, 2009, we raised approximately $18.3 million, net of fees and expenses, in a registered direct offering, and on September 23, 2009, we raised approximately $1.2 million, net of fees, from the sale of 500,000 shares of our common stock of RXi. Management believes that our current cash on hand, together with our marketable securities and proceeds from possible future sales of RXi common stock, will be sufficient to fund our operations for the foreseeable future. The estimate is based, in part, upon our currently projected expenditures for 2010 of approximately $18.0 million (unaudited), which includes approximately $3.2 million (unaudited) for our clinical programs for INNO-206, approximately $1.6 million (unaudited) for our clinical programs for bafetinib, approximately $2.5 million (unaudited) for our clinical program for tamibarotene, approximately $1.4 million (unaudited) for our activities for arimoclomol, approximately $2.2 million (unaudited) for general operation of its clinical programs, and approximately $7.1 million (unaudited) for other general and administrative expenses. These projected expenditures are also based upon numerous other assumptions and subject to many uncertainties, and actual expenditures may be significantly different from these projections. We will be required to obtain additional funding in order to execute our long-term business plans, although we do not currently have commitments from any third parties to provide us with capital. The fair value of common stock investment in RXi is subject to market fluctuations that could impact the amount of cash we generate from the sale of RXi shares in the future. We cannot assure that additional funding will be available on favorable terms, or at all. If we fail to obtain additional funding when needed, we may not be able to execute our business plans and our business may suffer, which would have a material adverse effect on our financial position, results of operations and cash flows.

Our Separation from RXi Pharmaceuticals Corporation

RXi Pharmaceuticals Corporation was founded in April 2006 by us and four researchers in the field of RNAi, including Dr. Craig Mello, recipient of the 2006 Nobel Prize for Medicine for his co-discovery of RNAi. RNAi is a naturally occurring mechanism for the regulation of gene expression that has the potential to selectively inhibit the activity of any human gene. In January 2007, we transferred to RXi substantially all of our RNAi-related technologies and assets, and RXi began operating on a stand-alone basis for the purpose of accelerating the discovery of RNAi therapeutics previously sponsored by us. RXi's initial focus is on developing RNAi-based product candidates for treating neurological and metabolic disorders and cancer.

Until early 2008, we owned approximately 85% of the outstanding shares of common stock of RXi and our financial statements, including our financial statements as of and for the year ended December 31, 2007, included the consolidated financial condition and results of operations of RXi. On February 14, 2008, our board of directors declared a dividend of one share of RXi common stock for each approximately 20.05 shares of our common stock held by such stockholders, which was paid on March 11, 2008 and which reduced our ownership of RXi shares to less than 50%.

For periods beginning with the first quarter of 2008, we began to account for our investment in RXi using the equity method, under which we record only our pro-rata share of the financial results of RXi as "equity in loss of unconsolidated subsidiary" on our statements of operations. Because a portion of RXi's financial results for 2008 and all of RXi's financial results for 2007 were not recorded by us under the equity method, our results of operations for the year ended December 31, 2009 are not directly comparable to results of operations for the same periods in prior years.

Research and Development

Expenditures for research and development activities related to continuing operations were $7.5 million, $10.5 million and $18.8 million for the years ended December 31, 2009, 2008 and 2007, or approximately 44%, 35% and 55%, respectively, of our total expenses.

Research and development expenses are further discussed below under “Critical Accounting Policies and Estimates” and “Results of Operations.”

Our currently projected expenditures for 2010 include approximately $3.2 million for our clinical programs for INNO-206, approximately $1.6 million for our clinical programs for bafetinib, approximately $2.5 million for our clinical program for tamibarotene, approximately $1.4 million for our activities for arimoclomol, and approximately $2.2 million for general operation of our clinical programs. The actual cost of our clinical programs could differ significantly from our current projections due to any additional requirements or delays imposed by the FDA in connection with our planned trials, or if actual costs are higher than current management estimates for other reasons, including complications with manufacturing. In the event that actual costs of our clinical program, or any of our other ongoing research activities, are significantly higher than our current estimates, we may be required to significantly modify our planned level of operations.

There is a risk that any drug discovery and development program may not produce revenue because of the risks inherent in drug discovery and development. The successful development of any product candidate is highly uncertain. We cannot reasonably estimate or know the nature, timing and costs of the efforts necessary to complete the development of, or the period in which material net cash inflows are expected to commence from any product candidate, due to the numerous risks and uncertainties associated with developing drugs, including the uncertainty of:

- our ability to advance product candidates into pre-clinical and clinical trials;
- the scope, rate and progress of our pre-clinical trials and other research and development activities;
- the scope, rate of progress and cost of any clinical trials we commence;
- the cost of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;
- future clinical trial results;
- the terms and timing of any collaborative, licensing and other arrangements that we may establish;
- the cost and timing of regulatory approvals;
- the cost and timing of establishing sales, marketing and distribution capabilities;
- the cost of establishing clinical and commercial supplies of our product candidates and any products that we may develop; and
- the effect of competing technological and market developments.

Any failure to complete any stage of the development of our products in a timely manner could have a material adverse effect on our operations, financial position and liquidity. A discussion of the risks and uncertainties associated with our business is set forth in the “Risk Factors” section of this Annual Report.

Critical Accounting Policies and Estimates

Management’s discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, management evaluates its estimates, including those related to revenue recognition, stock options, impairment of long-lived assets, including finite lived intangible assets, accrued liabilities and certain expenses. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ materially from these estimates under different assumptions or conditions.

Our significant accounting policies are summarized in Note 2 of the Notes to Financial Statements included in this Annual Report. We believe the following critical accounting policies are affected by our more significant judgments and estimates used in the preparation of our consolidated financial statements:

Revenue Recognition

Revenue consists of license fees from strategic alliances with pharmaceutical companies as well as service and grant revenues. Service revenue consists of contract research and laboratory consulting. Grant revenues consist of government and private grants.

Monies received for license fees are deferred and recognized ratably over the performance period in accordance with Staff Accounting Bulletin ("SAB") No. 104, Revenue Recognition. Milestone payments will be recognized upon achievement of themilestone as long as the milestone is deemed substantive and we have no other performance obligations related to the milestone and collectability is reasonably assured, which is generally upon receipt, or recognized upon termination of the agreement and all related obligations. Deferred revenue represents amounts received prior to revenue recognition.

Revenues from contract research, government grants, and consulting fees are recognized over the respective contract periods as the services are performed, provided there is persuasive evidence or an arrangement, the fee is fixed or determinable and collection of the related receivable is reasonably assured. Once all conditions of the grant are met and no contingencies remain outstanding, the revenue is recognized as grant fee revenue and an earned but unbilled revenue receivable is recorded.

In August 2006, we received approximately $24.3 million in proceeds from the privately-funded ALS Charitable Remainder Trust ("ALSCRT") in exchange for the commitment to continue research and development of arimoclomol and other potential treatments for ALS and a one percent royalty in the worldwide sales of arimoclomol. We accounted for the transaction under ASC 730-20 (previously Statement of Financial Accounting Standards No. 68, Research and Development Arrangements). Accordingly, we recorded the value received under the arrangement as deferred service revenue and recognize service revenue, using the proportional performance method of revenue recognition, on a dollar-for-dollar basis for each dollar of expense incurred for the research and development of arimoclomol and other potential ALS treatments. In August 2009, we were released from all restrictions on the use of any proceeds previously paid to us in connection with the arrangement. As a result, we recognized in the third quarter $6.7 million of service revenue representing the remaining deferred revenue and previously un-recognized portion of the value received in the transaction with ALSCRT. For the years ended December 31, 2009 and 2008, we recognized approximately $9.4 million and $6.2 million, respectively, of service revenue related to this transaction.

Research and Development Expenses

Research and development expenses consist of costs incurred for direct and overhead-related research expenses and are expensed as incurred. Costs to acquire technologies, including licenses, that are utilized in research and development and that have no alternative future use are expensed when incurred. Technology developed for use in its products is expensed as incurred until technological feasibility has been established.

Clinical Trial Expenses

Clinical trial expenses, which are included in research and development expenses, include obligations resulting from the Company's contracts with various clinical research organizations in connection with conducting clinical trials for its product candidates. We recognize expenses for these activities based on a variety of factors, including actual and estimated labor hours, clinical site initiation activities, patient enrollment rates, estimates of external costs and other activity-based factors. We believe that this method best approximates the efforts expended on a clinical trial with the expenses we record. We adjust our rate of clinical expense recognition if actual results differ from our estimates. If our estimates are incorrect, clinical trial expenses recorded in any particular period could vary.

Stock-based Compensation

Our stock-based employee compensation plans are described in Note 15 of the Notes to our Financial Statements. We have adopted the provisions of ASC 718 (previously SFAS No. 123(R), Share-Based Payment ("SFAS 123(R)")), which requires the measurement and recognition of compensation expense for all stock-based awards made to employees and non-employees.

For stock options and stock warrants paid in consideration of services rendered by non-employees, we recognize compensation expense in accordance with the requirements of ASC 718 (previously SFAS No. 123(R)), ASC 505-50 (previously Emerging Issues Task Force Issue No. 96-18 (“EITF 96-18”)), Accounting for Equity Instruments that are Issued to other than Employees for Acquiring, or in Conjunction with Selling Goods or Services and ASC 505 (previously EITF 00-18, Accounting Recognition for Certain Transactions involving Equity Instruments Granted to Other Than Employees), as amended.

Non-employee option grants that do not vest immediately upon grant are recorded as an expense over the vesting period. At the end of each financial reporting period prior to performance, the value of these options, as calculated using the Black-Scholes option-pricing model, is determined, and compensation expense recognized or recovered during the period is adjusted accordingly. Since the fair market value of options granted to non-employees is subject to change in the future, the amount of the future compensation expense is subject to adjustment until the common stock options or warrants are fully vested.

Impairment of Long-Lived Assets

We review long-lived assets, including finite lived intangible assets, for impairment on an annual basis, as of December 31, or on an interim basis if an event occurs that might reduce the fair value of such assets below their carrying values. An impairment loss would be recognized based on the difference between the carrying value of the asset and its estimated fair value, which would be determined based on either discounted future cash flows or other appropriate fair value methods. If our estimates used in the determination of either discounted future cash flows or other appropriate fair value methods are not accurate as compared to actual future results, we may be required to record an impairment charge. The fixed assets, from our San Diego laboratory and our molecular library, available for sale were re-allocated from Equipment and Furnishings to Assets Held for Sale and were written down to their estimated net realizable value as of September 30, 2009.

Net Income (Loss) Per Share

Basic net income (loss) per common share is computed using the weighted-average number of common shares outstanding. Diluted net income (loss) per common share is computed using the weighted-average number of common share and common share equivalents outstanding. Common share equivalents that could potentially dilute basic earnings per share in the future, and that were excluded from the computation of diluted loss per share, totaled approximately 24.4 million shares, 15.2 million shares and 17.1 million shares at December 31, 2009, 2008 and 2007, respectively.

As a result of our March 11, 2008 distribution by our stockholders of approximately 36% of the outstanding shares of RXi, we recorded a deemed dividend of approximately $757,000. The deemed dividend was reflected as an adjustment to net loss for the first quarter of 2008 to arrive at net loss applicable to common stockholders on the consolidated statement of operations and for purposes of calculating basic and diluted earnings per shares.

Quarterly Financial Data

The following table sets forth unaudited consolidated statements of operations data for each quarter during our most recent two fiscal years. This quarterly information has been derived from our unaudited consolidated financial statements and, in the opinion of management, includes all adjustments, consisting only of normal recurring adjustments, necessary for a fair presentation of the information for the periods covered. The quarterly financial data should be read in conjunction with our consolidated financial statements and related notes. The operating results for any quarter are not necessarily indicative of the operating results for any future period.

	Quarters Ended			
	March 31	June 30	September 30	December 31
	(In thousands, except per share data)			
2009				
Total revenues	$ 1,483	$ 1,000	$ 6,954	$ 100
Net income (loss)	(3,973)	(2,226)	3,863	(2,464)
Net income (loss) applicable to common stockholders	$ (3,973)	$ (2,226)	$ 3,863	$ (2,464)
Basic and diluted (income) loss per share applicable to common stock	$ (0.04)	$ (0.02)	$ 0.04	$ (0.03)
2008				
Total revenues	$ 2,181	$ 1,740	$ 917	$ 1,427
Net loss	(5,374)	(5,826)	(12,316)	(3,530)

Deemed dividend for anti-dilution adjustments made to outstanding common stock warrants	(757)	—	—	—
Net loss applicable to common stockholders	$ (6,131)	$ (5,826)	$ (12,316)	$ (3,530)
Basic and diluted loss per share applicable to common stock	$ (0.07)	$ (0.06)	$ (0.14)	$ (0.03)

Quarterly and yearly loss per share amounts are computed independently of each other. Therefore, the sum of the per share amounts for the quarters may not equal the per share amounts for the year. In 2009 and 2008 we incurred $2.3 million and $2.1 million, respectively, in employee non-cash compensation expenses.

In connection with our adjustment to the exercise terms of certain outstanding warrants to purchase common stock on March 11, 2008, we recorded deemed dividends of $757,000. These deemed dividends are reflected as an adjustment to net loss for the first quarter of 2008 to arrive at net loss applicable to common stockholders on the consolidated statement of operations and for purposes of calculating basic and diluted earnings per shares.

Liquidity and Capital Resources

General

In order to fund our business and operations, we have relied primarily upon sales of our equity securities, including proceeds received upon the exercise of options and warrants, and sales of our shares of RXi common stock. We also have received limited payments from our strategic partners and licensees.

At December 31, 2009, we had cash and cash equivalents of approximately $9.9 million, marketable securities of $22.8 million and held 5,768,881 shares of restricted common stock of RXi with a market value of $26.4 million based upon the closing price of the RXi common stock on that date. On July 27, 2009, we raised approximately $18.3 million, net of fees and expenses, in a registered direct offering, and on September 23, 2009, we raised approximately $1.2 million, net of fees, from the sale of 500,000 shares of our common stock of RXi. Management believes that our current cash on hand, together with our marketable securities and proceeds from possible future sales of RXi common stock, will be sufficient to fund our operations for the foreseeable future. The estimate is based, in part, upon our currently projected expenditures for 2010 of approximately $18.0 million (unaudited), which includes approximately $3.2 million (unaudited) for our clinical programs for INNO-206, approximately $1.6 million (unaudited) for our clinical programs for bafetinib, approximately $2.5 million (unaudited) for our clinical program for tamibarotene, approximately $1.4 million (unaudited) for our activities for arimoclomol, approximately $2.2 million (unaudited) for general operation of its clinical programs, and approximately $7.1 million (unaudited) for other general and administrative expenses. These projected expenditures are also based upon numerous other assumptions and subject to many uncertainties, and actual expenditures may be significantly different from these projections. We will be required to obtain additional funding in order to execute our long-term business plans, although we do not currently have commitments from any third parties to provide us with capital. The fair value of common stock investment in RXi is subject to market fluctuations that could impact the amount of cash we generate from the sale of RXi shares in the future. We cannot assure that additional funding will be available on favorable terms, or at all. If we fail to obtain additional funding when needed, we may not be able to execute our business plans and our business may suffer, which would have a material adverse effect on our financial position, results of operations and cash flows.

If we obtain marketing approval as currently planned and successfully commercialize our product candidates, 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. Our ability to raise capital has been materially and adversely affected by the continuing poor economy. Despite the recovery in the U.S. financial markets in 2009, the market remains severely depressed for private investment in public equities, or PIPEs, transactions on which we have relied for raising needed capital. These conditions also may materially and adversely affect the market for our RXi shares. 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. Failure to obtain adequate financing would adversely affect our ability to operate as a going concern. If we raise additional funds by issuing equity securities, dilution to stockholders may result and new investors could have rights superior to holders of the shares issued in this offering. In addition, debt financing, if available, may include restrictive covenants. If adequate funds are not available to us, we may have to liquidate some or all of our assets or to delay or reduce the scope of or eliminate some portion or all of our development programs or clinical trials. We also may have to license to other companies our product candidates or technologies that we would prefer to develop and commercialize ourselves.

Discussion of Operating, Investing and Financing Activities

Net loss for the year ended December 31, 2009 was $4.8 million, and cash used for operating activities for that period was $12.1 million. The net loss for the year reflects $9.4 million of revenue recognized under the 2006 agreement

with ALSCRT, and $2.8 million for stock option and warrant expense.

Net loss for the year ended December 31, 2008 was $27.0 million, and cash used for operating activities for that period was $19.4 million. The net loss for the year reflects $6.2 million of revenue recognized under the 2006 agreement with ALSCRT, a expense of $8.0 million related to the acquisition of Innovive's in-process research and development, a loss of $3.9 million in our equity in RXi, and $2.1 million for stock option and warrant expense.

Net loss for the year ended December 31, 2007 was $21.9 million, and cash used for operating activities for that period was $22.4 million. The net loss for the year reflects $7.2 million of revenue recognized under the 2006 agreement with ALSCRT and $3.5 million for stock option and warrant expense.

For the year ended December 31, 2009, $21.6 million was used in investing activities. This included $22.8 million used to purchase marketable securities, which was partially offset by proceeds of $1.2 million from the sale of 500,000 of our shares of common stock RXi.

For the year ended December 31, 2008, $7.0 million was used in investing activities including $10.0 million of RXi funds resulting from converting marketable securities to cash equivalents that is not available to us due to the deconsolidation. The total cash outlay to acquire Innovive totaled $5.7 million, which related primarily to the payment of Innovive's accounts payable. The other $0.9 million was used for the purchase of equipment and furnishings, primarily associated with equipping the San Diego laboratory.

For the year ended December 31, 2007, $11.0 million was used in investing activities. Of this amount, $9.8 million was used by RXi for the purchase of marketable securities. The other $1.3 million was used for the purchase of equipment and furnishings primarily associated with equipping our San Diego laboratory.

Cash provided by financing activities for the year ended December 31, 2009 was $18.6 million. During 2009, we raised $18.3 million in a private placement of our common stock and an additional $0.3 million from the exercise of previously outstanding stock options and warrants.

Cash provided by financing activities for the year ended December 31, 2008 was $1.0 million. During 2008, we received $1.0 million from the exercise of stock options and warrants.

Cash provided by financing activities for the year ended December 31, 2007 was $53.5 million. During 2007, we raised $34.2 million in a private placement of our common stock and an additional $18.8 million from the exercise of previously outstanding stock options and warrants.

Off-Balance Sheet Arrangements

We have no off-balance sheet arrangements that have a material current effect or that are reasonably likely to have a material future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures, or capital resources.

Contractual Obligations

We acquire assets still in development and enter into research and development arrangements with third parties that often require milestone and royalty payments to the third party contingent upon the occurrence of certain future events linked to the success of the asset in development. Milestone payments may be required, contingent upon the successful achievement of an important point in the development life-cycle of the pharmaceutical product (e.g., approval of the product for marketing by a regulatory agency). If required by the arrangement, we may have to make royalty payments based upon a percentage of the sales of the pharmaceutical product in the event that regulatory approval for marketing is obtained. Because of the contingent nature of these payments, they are not included in the table of contractual obligations.

These arrangements may be material individually, and in the event that milestones for multiple products covered by these arrangements were reached in the same period, the aggregate charge to expense could be material to the results of operations in any one period. In addition, these arrangements often give us the discretion to unilaterally terminate

development of the product, which would allow us to avoid making the contingent payments; however, we are unlikely to cease development if the compound successfully achieves clinical testing objectives.

Our current contractual obligations that will require future cash payments are as follows (in thousands):

	Operating Leases (1)(2)	Employment Agreements (3)	Subtotal	Research and Development (4)	Total
2010	$873	$ 2,210	$3,083	$ 3,018	$6,101
2011	536	—	536	49	585
2012	459	—	459	149	608
2013	318	—	318	149	467
2014 and thereafter	372	—	372	383	755
Total	$2,558	$ 2,210	$4,768	$ 3,748	$8,516

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(1) Operating leases are primarily facility lease related obligations, as well as equipment and software lease obligations with third party vendors.

(2) We are entitled to receive future rental income under subleases in place which would be offset against future operating lease obligations as follows: $519,000 in 2010, $350,000 in 2011 and $235,000 in 2012.

(3) Employment agreements include management contracts, which have been revised from time to time, provide for minimum salary levels, adjusted annually at the discretion of our Compensation Committee, as well as for minimum bonuses that are payable.

(4) Research and development obligations relate primarily to clinical trials. Most of these purchase obligations are cancelable.

We apply the disclosure provisions of ASC 460 (formerly FASB Interpretation No. ("FIN") 45, Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Other), to our contractual guarantees and Indemnities. We have provided contractual indemnities to investors and other parties against possible losses suffered or incurred by the indemnified parties in connection with various types of third-party claims, as well as indemnities to our officers and directors against third party claims arising from the services they provide to us. To date, we have not incurred material costs as a result of these indemnities, and we do not expect to incur material costs in the future; further, we maintain insurance to cover certain losses arising from these indemnities. Accordingly, we have not accrued any liabilities in our consolidated financial statements related to these indemnities.

Net Operating Loss Carryforwards

At December 31, 2009, we had United States federal and state net operating loss carryforwards of $91.6 million and $81.9 million, respectively, available to offset against future taxable income, which expire in 2011 through 2029. Approximately $34.7 million of our federal net operating loss carryforwards are limited in their availability to $0.3 million annually. Management currently believes that the remaining $56.9 million in federal net operating loss carryforwards, and the $57.6 million in state net operating loss carryforwards as of December 31, 2009, are unrestricted. However, management is reviewing its recent equity transactions to determine if they may have resulted in any further restrictions on the Company's net operating loss carryforwards. As of December 31, 2009, we also had research and development and alternative minimum tax credits for federal and state purposes of approximately $8.9 million and $0, respectively, available for offset against future income taxes, which expire in 2022 through 2029.

Based on an assessment of all available evidence including, but not limited to, our limited operating history in our core business and lack of profitability, uncertainties of the commercial viability of its technology, the impact of government regulation and healthcare reform initiatives, and other risks normally associated with biotechnology companies, we have concluded that it is more likely than not that these net operating loss carryforwards and credits will not be realized and, as a result, a 100% deferred tax valuation allowance has been recorded against these assets.

Results of Operations

We incurred a net loss of $4.8 million, $27.0 million and $21.9 million for the years ended December 31, 2009, 2008 and 2007, respectively.

During fiscal 2009, we recognized $9.4 million in service revenues relating to our $24.3 million sale to the ALSCRT of a one-percent royalty interest in the worldwide sales of arimoclomol in August 2006. Pursuant to an amendment signed between us and thebeneficiary of the ALSCRT on August 6, 2009, we were released from all restrictions on the use of any proceeds previously paid to us in connection with the arrangement. As a result, we recognized $6.7 million as service revenue in the third quarter of 2009, which represented the remaining deferred revenue and previously un-recognized portion of the value received. In the years ended December 31, 2008 and 2007, we recognized $6.2 million and $7.2 million in service revenues, respectively.

During 2009, 2008 and 2007, we earned an immaterial amount of license fees and grant revenue. All future licensing fees under our current licensing agreements are dependent upon successful development milestones being achieved by the licensor. During fiscal 2010, we are not anticipating the receipt of any significant service or licensing fees.

Our net loss may increase from current levels primarily due to expenses related to our ongoing and planned clinical trials, research and development programs, possible technology acquisitions, and other general corporate activities. We anticipate, therefore, that our operating results will fluctuate for the foreseeable future and period-to-period comparisons should not be relied upon as predictive of the results in future periods.

Research and Development

	Years Ended December 31,		
	2009	2008	2007
		(In thousands)	
Research and development expenses	$5,621	$9,913	$14,454
Non-cash research and development expenses	62	(224)	3,778
Impairment loss on fixed assets	1,187	—	—
Employee stock option expense	672	777	592
	$7,542	$10,466	$18,824

Research expenses are expenses incurred by us in the discovery of new information that will assist us in the creation and the development of new drugs or treatments. Development expenses are expenses incurred by us in our efforts to commercialize the findings generated through our research efforts.

Research and development expenses incurred during 2009, 2008 and 2007 relate to our various development programs. In 2009, we substantially completed the initial phase of our new-drug discovery research in our laboratory facility in San Diego, California, which account for the significant decrease in research and development expenses from 2008. In 2008, only the months of January and February included RXi-related expenses (totaling approximately $0.6 million), which accounts for the significant decrease in research and development expenses, and non-cash research and development expenses. In 2009, our development costs associated included approximately $0.8 million for our clinical programs for INNO-206, approximately $0.25 million for our clinical programs for bafetinib, $0.8 million for our clinical program for tamibarotene, approximately $0.4 million for our activities for arimoclomol, approximately $0.4 million for general operation of our clinical programs, and approximately $3.0 million for other general and administrative expenses. None of our research and development costs have ever been capitalized.

As compensation to scientific advisory board (“SAB”) members and consultants, and in connection with the acquisition of technology, we and RXi sometimes issue shares of common stock, stock options and warrants to purchase shares of common stock. For financial statement purposes, we value these shares of common stock, stock options, and warrants at the fair value of the common stock, stock options or warrants granted, or the services received, whichever is more reliably measurable. We recorded charges (recovery) of $0.0 million, $(0.2 million) and $3.8 million in this regard during 2009, 2008 and 2007, respectively. Included in the research and development charges for 2007 were $2.3

million of expense related to RXi's issuance of 462,112 shares of common stock to UMMS for certain license agreement rights and a new invention disclosure agreement and $1.0 million for non-qualifying stock options to SAB members of RXi. In 2009, we recorded $0.7 million of employee stock option expense as compared to $0.8 million in 2008 and $0.6 million in 2007.

We also incurred an expenditure of $8.0 million in 2008 related to the acquisition of Innovive's in-process research and development, which has been reflected as a separate line item on our Consolidated Statements of Operations.

In 2010, we expect our research and development expenses to increase as a result of our clinical programs with INNO-206, bafetinib and tamibarotene.

General and administrative expenses

	Year Ended December 31,		
	2009	2008	2007
	(In thousands)		
General and administrative expenses	$7,128	$9,134	$12,666
Stock, stock option and warrant expenses to non-employees and consultants	421	189	2
Employee stock option expense	1,579	1,610	2,154
	$9,128	$10,933	$14,822

General and administrative expenses include all administrative salaries and general corporate expenses, including legal expenses associated with the prosecution of our intellectual property. Our general and administrative expenses, excluding common stock, stock options and warrants issued, and excluding depreciation expense, were $7.1 million in 2009, $9.1 million in 2008 and $12.7 million, respectively, in 2007. General and administrative expenses in 2007 included $4.6 million of RXi-related expenses. In 2008, we recognized RXi-related expenses for January and February only of $1.3 million. No RXi-related expenses were recognized in 2009. General and administrative expenses in 2009 decreased by $2.0 million as compared to 2008, due primarily to the $1.3 million of RXi-related expenses recognized in 2008. In 2009, legal and accounting/auditing expenses decreased by approximately $302,000 and $304,000, respectively, primarily due to the higher expenses incurred in 2008 in connection with our acquisition of Innovive, as well as efficiencies in the administrative area.

From time to time, we issue shares of our common stock or warrants or options to purchase shares of our common stock to consultants and other service providers in exchange for services. For financial statement purposes, we value these shares of common stock, stock options, and warrants at the fair value of the common stock, stock options or warrants granted, or the services received, whichever we can measure more reliably.

We recorded employee stock option expense of $1.6 million in 2009, $1.6 million in fiscal 2008 and $2.2 million in fiscal 2007. The greater amount in 2007 primarily related to stock options granted by RXi to recruit and retain directors, officers and additional employees.

Depreciation and amortization

Depreciation and amortization expenses for the years ended December 31, 2009, 2008 and 2007 were $475,000, $625,000 and $272,000, respectively. The depreciation expense reflects the depreciation of our fixed assets and the amortization expenses related to our molecular library. The decrease in 2009 relates to a lower depreciation base due to the re-class of fixed assets to Assets-held-for-sale and the value of the molecular library related to the closure of the San Diego lab in the third quarter of 2009.

Other Income

In 2009, we recognized a gain of $0.7 million on the valuation of our warrant derivative liability related to warrants issued in July 2009. In July 2009, we recognized a gain of $1.2 million on the sale of RXi shares. In March 2008, we recognized a gain of $0.2 million on the transfer of some RXi common stock to certain employees. In June 2007, we recognized $1.5 million of income arising from a fee received pursuant to a change-in-control provision included in the purchase agreement for our 1998 sale of our animal pharmaceutical unit.

Interest income

Interest income was $0.3 million in 2009, $1.2 million in 2008 and $2.7 million in 2007. The variances between years are attributable primarily to the amount of funds available for investment each year and, to a lesser extent, changes in prevailing market rates.

Noncontrolling Interest in RXi

We offset $88,000 of losses in noncontrolling interest in RXi against our net loss for the months of January and February 2008. For the remainder of the year, and for 2009, RXi's gain and losses were accounted for under the equity method, because we owned less than 50% of RXi following our March 11, 2008 distribution to our stockholders of RXi shares. We offset $449,000 of minority interest in losses of RXi against our net loss for the year ended December 31, 2007.

Recent Accounting Pronouncements

In December 2007, the FASB issued guidance which is now part of ASC 810-10, Noncontrolling Interests in Consolidated Financial Statements, an Amendment of Accounting Research Bulletin No. 51 " (formerly Statement of Financial Accounting Standards (SFAS) 160, Noncontrolling Interests in Consolidated Financial Statements—an amendment of ARB No. 51). This guidance establishes accounting and reporting standards for ownership interests in subsidiaries held by parties other than the parent, changes in a parent's ownership of a noncontrolling interest, calculation and disclosure of the consolidated net income attributable to the parent and the noncontrolling interest, changes in a parent's ownership interest while the parent retains its controlling financial interest and fair value measurement of any retained noncontrolling equity investment. The new guidance is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years. Early adoption is prohibited. We adopted this guidance on January 1, 2009, the beginning of its 2009 fiscal year, which resulted in certain reclassifications related to the noncontrolling interest in the consolidated financial statements.

In March 2008, the FASB issued guidance ASC 815-10 (formerly Statement of Financial Accounting Standards No. 161, Disclosures about Derivative Instruments and Hedging Activities ("SFAS No. 161"). The new standard amends Statement of Financial Accounting Standards No. 133, Accounting for Derivative Instruments and Hedging Activities ("SFAS 133"), and seeks to enhance disclosure about how and why a company uses derivatives; how derivative instruments are accounted for under SFAS 133 (and the interpretations of that standard); and how derivatives affect a company's financial position, financial performance and cash flows. SFAS 161 will be effective for financial statements issued for fiscal years and interim periods beginning after November 15, 2008. Early application of the standard is encouraged, as well as comparative disclosures for earlier periods at initial adoption. The adoption of ASC 815-10 did not have a material impact on our consolidated financial statements.

In April 2008, the FASB issued revised guidance on determining the useful life of intangible assets. The revised guidance, which is now part of ASC 350-30 General Intangibles Other than Goodwill (previously Staff Position No. FAS 142-3, Determination of the Useful Life of Intangible Assets), amends the factors that should be considered in developing renewal or extension assumptions used to determine the useful life of a recognized intangible asset. The Position is effective for fiscal years beginning after December 15, 2008 and applies prospectively to intangible assets acquired after the effective date. Early adoption is not permitted. The adoption of SFAS No. ASC 350-30 did not have a material impact on our consolidated financial statements.

In May 2008, the FASB issued revised guidance on Convertible Debt Instruments. The revised guidance which is now part of ASC 470-20 (formerly Staff Position No. Accounting Principles Board 14-1, Accounting for Convertible Debt Instruments That May Be Settled in Cash upon Conversion (Including Partial Cash Settlement) ("FSP No. APB 14-1")). ASC 470-20 requires that the liability and equity components of convertible debt instruments that may be settled in cash upon conversion (including partial cash settlement) be separately accounted for in a manner that reflects an issuer's nonconvertible debt borrowing rate. ASC 470-20 is effective for us as of January 1, 2009. The adoption of ASCO 470-20 did not have an impact on our consolidated financial statements.

In June 2008, the FASB ratified guidance which is now part of ASC 815-40, Contracts in Entity's Own Equity (formerly EITF (Emerging Issues Task Force) 07-05), Determining Whether an Instrument (or Embedded Feature) Is Indexed to an Entity's Own Stock. The objective of this issue is to provide guidance for determining whether an equity-linked financial instrument (or embedded feature) is indexed to an entity's own stock. This issue applies to any freestanding financial instrument or embedded feature that has all the characteristics of a derivative instrument or an instrument which may be potentially settled in an entity's own stock regardless of whether the instrument possess derivative characteristics. This issue provides a two-step approach to assist in making these determinations and is effective for financial statements issued for fiscal years beginning after December 15, 2008. The adoption of ASC 815-40 did not have a material impact on our consolidated financial statements.

In April 2009, the FASB issued guidance which is now part of ASC 825-10 Financial Instruments (formerly Financial Staff Position SFAS 107-1 and Accounting Principles Board (APB) Opinion No. 28-1, Interim Disclosures about Fair Value of Financial Instruments (SFAS 107-1 and APB 28-1). This statement amends FASB Statement No. 107, Disclosures about Fair Values of Financial Instruments, to require disclosures about fair value of financial instruments in interim financial statements as well as in annual financial statements. The statement also amends APB Opinion No. 28, "Interim Financial Reporting," to require those disclosures in all interim financial statements. This statement is effective for interim periods ending after June 15, 2009. The adoption of ASC 825-10 did not have an impact on our financial statements.

In May 2009 and February 2010, the FASB issued new guidance for accounting for subsequent events. The new guidance, which is now part of ASC 855-10, Subsequent Events (formerly, SFAS No. 165, Subsequent Events) is consistent with existing auditing standards in defining subsequent events as events or transactions that occur after the balance sheet date but before the financialstatements are issued or are available to be issued. The new guidance defines two types of subsequent events: "recognized subsequent events" and "non-recognized subsequent events." Recognized subsequent events provide additional evidence about conditions that existed at the balance sheet date and must be reflected in the company's financial statements. Non-recognized subsequent events provide evidence about conditions that arose after the balance sheet date and are not reflected in the financial statements of a company. Certain non-recognized subsequent events may require disclosure to prevent the financial statements from being misleading. The new guidance was effective on a prospective basis for interim or annual periods ending after June 15, 2009. We adopted the provisions of ASC 855-10 as required.

In June 2009, the FASB amended ASC 860, (formerly SFAS No. 166, Accounting for Transfers of Financial Assets, an amendment to SFAS No. 140). ASC 860 eliminates the concept of a "qualifying special-purpose entity," changes the requirements for derecognizing financial assets, and requires additional disclosures in order to enhance information reported to users of financial statements by providing greater transparency about transfers of financial assets, including securitization transactions, and an entity's continuing involvement in and exposure to the risks related to transferred financial assets. ASC 860 is effective for fiscal years beginning after November 15, 2009. The Company will adopt ASC 860 in fiscal 2010. We do not expect that the adoption of ASC 860 will have a material impact on our financial statements.

In June 2009, the FASB amended ASC 810 (formerly SFAS No.167, Amendments to FASB Interpretation No. 46). The amendments include: (1) the elimination of the exemption for qualifying special purpose entities, (2) a new approach for determining who should consolidate a variable-interest entity, and (3) changes to when it is necessary to reassess who should consolidate a variable-interest entity. ASC 810 is effective for the first annual reporting period beginning after November 15, 2009 and for interim periods within that first annual reporting period. We will adopt ASC 810 in fiscal 2010. We do not expect that the adoption of ASC 810 will have a material impact on our financial statements.

In June 2009, the FASB issued new guidance which is now part of ASC 105-10 (formerly Statement of Financial Accounting Standards No. 168, The FASB Accounting Standards Codification and the Hierarchy of Generally Accepted Accounting Principles). ASC 105-10 replaces FASB Statement No. 162, "The Hierarchy of Generally Accepted Accounting Principles", and establishes the FASB Accounting Standards Codification as the source of authoritative accounting principles recognized by the FASB to be applied by nongovernmental entities in the preparation of financial statements in conformity with generally accepted accounting principles. ASC 105-10 is effective for interim and annual periods ending after September 15, 2009. The adoption of ASC 105-10 did not have a material impact on our financial statements.

In January, 2010, the FASB issued ASU 2010-06, Improving Disclosures about Fair Value Measurements. The standard amends ASC Topic 820, Fair Value Measurements and Disclosures to require additional disclosures related to transfers between levels in the hierarchy of fair value measurement. The standard does not change how fair values are measured. The standard is effective for interim and annual reporting periods beginning after December 15, 2009. As a result, it is effective for us in the first quarter of fiscal year 2010. We do not believe that the adoption of ASU 2010-06 will have a material impact on consolidated our financial statements.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our exposure to market risk is limited primarily to interest income sensitivity, which is affected by changes in the general level of U.S. interest rates, particularly because a significant portion of our investments are in short-term debt

securities issued by the U.S. government and institutional money market funds. The primary objective of our investment activities is to preserve principal. Due to the nature of our marketable securities, we believe that we are not exposed to any material market risk. We do not have any derivative financial instruments or foreign currency instruments. If interest rates had varied by 10% in the year ended December 31, 2009, it would not have had a material effect on our results of operations or cash flows for that period.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Our consolidated financial statements and supplemental schedule and notes thereto as of December 31, 2009 and 2008, and for each of the three years in the period ended December 31, 2009, together with the reports thereon of our independent registered public accounting firms, are set forth on pages F-1 to F-26 of this Annual Report.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

Item 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that the information disclosed in the reports we file with the Securities and Exchange Commission under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, performed an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Securities Exchange Act Rule 13a-15(e)) as of the end of the period covered by this Annual Report. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective as of December 31, 2009 to provide reasonable assurance that information required to be disclosed by us in reports that we file or submit under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms.

There was no change in our internal control over financial reporting that occurred during the quarter ended December 31, 2009 that materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f).

Under the supervision and with the participation of our management, including our principal executive and principal financial officers, we assessed the effectiveness of our internal control over financial reporting as of December 31, 2009. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in Internal Control-Integrated Framework. Based upon management's assessment using the criteria contained in COSO, our management has concluded that, as of December 31, 2009, our internal control over financial reporting was effective.

Our internal control over financial reporting as of December 31, 2009 has been audited by BDO Seidman, LLP, an independent registered public accounting firm, as stated in their report thereon set forth on pages F-25, which is incorporated herein by reference.

Item 9B. OTHER INFORMATION

None.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The following table sets forth information concerning our directors and executive officers:

Name	Age	Class of Director(1)	Position
Max Link, Ph.D.	69	III	Director, Chairman of the Board (2) (3) (4)
Steven A. Kriegsman	68	II	Director, Chief Executive Officer, President
Marvin R. Selter	82	II	Director, Vice Chairman of the Board (2) (3) (4)
Louis Ignarro, Ph.D.	68	I	Director
Joseph Rubinfeld, Ph.D.	77	I	Director
Richard L. Wennekamp	67	II	Director (2) (3) (4)
John Caloz	58	—	Chief Financial Officer
Daniel Levitt, M.D., Ph.D.	62	—	Chief Medical Officer
D. Scott Geyer	55	—	Sr. Vice President-Manufacturing
D. Scott Wieland	50	—	Sr. Vice President-Drug Development
Benjamin S. Levin	33	—	General Counsel, Vice President — Legal Affairs and Corporate Secretary
David J. Haen	31	—	Vice President – Business Development

(1) Our Class I directors serve until the 2010 annual meeting of stockholders, our Class II directors serve until the 2011 annual meeting of stockholders, and our Class III director serves until the 2012 annual meeting of stockholders.

(2) Members of our Audit Committee. Mr. Selter is the Chairman of the Committee.

(3) Members of our Nominating and Corporate Governance Committee. Mr. Wennekamp is Chairman of the Committee.

(4) Members of our Compensation Committee. Mr. Wennekamp is Chairman of the committee.

Max Link, Ph.D has been a director since 1996. Dr. Link has been retired from business since 2003. From March 2002 until its acquisition by Zimmer Holdings, Dr. Link served as Chairman and CEO of Centerpulse, Ltd. From May 1993 to June 1994, Dr. Link served as the Chief Executive Officer of Corange Ltd. (the holding company for Boehringer Mannheim Therapeutics, Boehringer Mannheim Diagnostics and DePuy International). From 1992 to 1993, Dr. Link was Chairman of Sandoz Pharma, Ltd. From 1987 to 1992, Dr. Link was the Chief Executive Officer of Sandoz Pharma and a member of the Executive Board of Sandoz, Ltd., Basel. Prior to 1987, Dr. Link served in various capacities with the United States operations of Sandoz, including President and Chief Executive Officer. Dr. Link also serves as a director of Alexion Pharmaceuticals, Inc., Celsion Corporation, Inc. and Discovery Laboratories, Inc., and in the past five years, also served as a director of Access Pharmaceuticals, Inc., Cell Therapeutics, Inc., Columbia Laboratories, Inc., Human Genome Sciences, Inc. and Protein Design Laboratories, Inc.

Dr. Link has extensive executive-level experience with a number of large pharmaceutical companies, including Sandoz Pharma, Ltd. In these positions, he was responsible for major strategic and other business initiatives, including new drug development, acquisitions and dispositions of new drug candidates and other technology,

licensing, marketing and distribution agreements and other key contractual strategic arrangements that affect, or are likely to affect, our company's own business efforts. As an executive officer and board member of these other companies, he has experience with the regulatory schemes in foreign jurisdictions and also has been exposed to different approaches to corporate governance matters, potential conflicts of interest, and similar matters, which enables him to offer importance guidance to our Board of Directors.

Steven A. Kriegsman has been CytRx's President and Chief Executive Officer and a director since July 2002. He also serves as a director of CytRx's 36% owned affiliate, RXi Pharmaceuticals Corporation. He previously served as Director and Chairman of Global Genomics from June 2000. Mr. Kriegsman is an inactive Chairman and Founder of Kriegsman Capital Group LLC, a financial advisory firm specializing in the development of alternative sources of equity capital for emerging growth companies in the healthcare industry. He has advised such companies as SuperGen Inc., Closure Medical Corporation, Novoste Corporation, Miravant Medical Technologies, and Maxim Pharmaceuticals. In the past five years, Mr. Kriegsman has also served on the Board of Directors of Bradley Pharmaceuticals, Inc. and Hythiam, Inc. Mr. Kriegsman has a BS degree with honors from New York University in Accounting and completed the Executive Program in Mergers and Acquisitions at New York University, The Management Institute. Mr. Kriegsman is a graduate of the Stanford Law School Directors' College. Mr. Kriegsman was formerly a Certified Public Accountant with KPMG in New York City. In February 2006, Mr. Kriegsman received the Corporate Philanthropist of the Year Award from the Greater Los Angeles Chapter of the ALS Association and in October 2006, he received the Lou Gehrig Memorial Corporate Award from the Muscular Dystrophy Association. Mr. Kriegsman has been a guest speaker and lecturer at various universities including California Institute of Technology (Caltech), Brown University, and New York University. Mr. Kriegsman has been active in various charitable organizations including the Biotechnology Industry Organization, the ALS Association, the Los Angeles Venture Association, the Southern California Biomedical Council, and the Palisades-Malibu YMCA.

Marvin R. Selter has been a director since October 2003. He has been President and Chief Executive Officer of CMS, Inc. since he founded that firm in 1968. CMS, Inc. is a national management consulting firm. In 1972, Mr. Selter originated the concept of employee leasing. He served as a member of the Business Tax Advisory Committee—City of Los Angeles, Small Business Board—State of California and the Small Business Advisory Commission—State of California. Mr. Selter also serves on the Valley Economic Development Center as past Chairman and Audit Committee Chairman, the Board of Valley Industry and Commerce Association as past Chairman, the Advisory Board of the San Fernando Economic Alliance and the California State University—Northridge as Past Chairman of the Economic Research Center and President of the Olive View UCLA Medical Center Foundation. He has served, and continues to serve, as a member of boards of directors of various hospitals, universities, private medical companies and other organizations. Mr. Selter attended Rutgers—The State University, majoring in Accounting and Business Administration. He was an LPA having served as Controller, Financial Vice President and Treasurer at distribution, manufacturing and service firms. He has lectured extensively on finance, corporate structure and budgeting for the American Management Association and other professional teaching associations.

Mr. Selter has founded, operated, and grown his own successful businesses, which gives him a valuable insight into the financial constraints and operational challenges facing companies in the development stage and as they mature. He also has many years of involvement in various governmental agencies and charitable organizations, which affords him an important perspective on the business regulatory process and capital-raising activities. In addition, he has significant education and work experience in accounting and financial matters that he is able to utilize as the named financial expert on our Audit Committee.

Louis Ignarro, Ph.D. has been a director since July 2002. He previously served as a director of Global Genomics since November 20, 2000. Dr. Ignarro serves as the Jerome J. Belzer, M.D. Distinguished Professor of Pharmacology in the Department of Molecular and Medical Pharmacology at the UCLA School of Medicine. Dr. Ignarro has been at the UCLA School of Medicine since 1985 as a professor, acting chairman and assistant dean. Dr. Ignarro received the Nobel Prize for Medicine in 1998. Dr. Ignarro received a B.S. in pharmacy from Columbia University and his Ph.D. in Pharmacology from the University of Minnesota. Dr. Ignarro is a Nobel Laureate and an esteemed medical researcher whose experience enables him to offer importance scientific guidance to our Board of Directors.

Joseph Rubinfeld, Ph.D. has been a director since July 2002. He co-founded SuperGen, Inc. in 1991 and has served as its Chief Executive Officer and President and as a director since its inception until December 31, 2003. He resigned as Chairman Emeritus of SuperGen, Inc. on February 8, 2005. Dr. Rubinfeld was also Chief Scientific Officer of SuperGen from 1991 until September 1997. Dr. Rubinfeld is also a founder of JJ Pharma. Dr. Rubinfeld was one of the four initial founders of Amgen, Inc. in 1980 and served as a Vice President and its Chief of Operations until 1983. From 1987 until 1990, Dr. Rubinfeld was a Senior Director at Cetus Corporation and from 1968 to 1980, Dr. Rubinfeld was employed at Bristol-Myers Company, International Division in a variety of positions. Dr. Rubinfeld received a B.S. degree in chemistry from C.C.N.Y. and an M.A. and Ph.D. in chemistry from Columbia University.

Dr. Rubinfeld served as a senior executive of several large pharmaceutical companies before leaving to co-found and serve as Chief Executive Officer or in other senior executive capacities with highly successful companies. Dr. Rubenfeld's academic training and business experience enhances the breadth and scope of our Board's oversight of our company's management, business, strategic relationships, and other activities, while his vision adds to the long-range planning of our Board of Directors and management.

Richard L. Wennekamp has been a director since October 2003. He retired from Community Bank in June 2008 where he was the Senior Vice President-Credit Administration since October 2002. From September 1998 to July 2002, Mr. Wennekamp was an executive officer of Bank of America Corporation, holding various positions, including Managing Director-Credit Product Executive for the last four years of his 22-year term with the bank. From 1977 through 1980, Mr. Wennekamp was a Special Assistant to former President of the United States, Gerald R. Ford, and

the Executive Director of the Ford Transition Office. Prior thereto, he served as Staff Assistant to the President of the United States for one year, and as the Special Assistant to the Assistant Secretary of Commerce of the U.S.

Mr. Wennekamp's senior executive experience in the banking and financial services industry sets him apart from our other directors and adds unique capabilities and a different perspective to the deliberations of our Board of Directors. As a former Chief Credit Officer at Bank of America and Community Bank, he understands the credit needs, financing requirements, and operational constraints of development-stage and mature businesses.

Daniel Levitt, M.D., Ph.D. joined us in October 2009 as our Chief Medical Officer. Dr. Levitt brings more than 24 years of senior management experience, having spearheaded numerous drug development programs to commercialization at leading biotechnology and pharmaceutical companies. Prior to joining CytRx, Dr. Levitt served from January 2007 to February 2009 as Executive Vice President, Research and Development at Cerimon Pharmaceuticals, Inc. Prior to that, from August 2003 to April 2006, he was Chief Medical Officer and Head of Clinical and Regulatory Affairs at Dynavax Technologies Corporation, managing clinical trials for four programs and overseeing multi-country regulatory strategies. From August 2002 to July 2003, Dr. Levitt was Chief Operating Officer and Head of Research and Development at Affymax, Inc., and prior to that he spent six years at Protein Design Labs, Inc., completing his tenure as that firm's President and Head of Research and Development. Dr. Levitt's past experience includes a position as Head of Drug Development at Geron Corporation, and Head of the Cytokine Development Unit and Global Clinical Oncology at Sandoz Pharmaceuticals Ltd., and as Director, Clinical Oncology and Immunology at Hoffmann-LaRoche, Inc. Dr. Levitt graduated Magna Cum Laude and Phi Beta Kappa with a Bachelor of Arts degree from Brandeis University. He earned both his M.D. and his Ph.D. in Biology from the University of Chicago Pritzker School of Medicine. Dr. Levitt has received 10 major research awards and authored or co-authored nearly 200 papers and abstracts.

John Y. Caloz joined us in October 2007 as our Chief Accounting Officer. In January of 2009 Mr. Caloz was named Chief Financial Officer. He has a history of providing senior financial leadership in the life sciences sector, as Chief Financial Officer of Occulogix, Inc, a NASDAQ listed, a medical therapy company. Prior to that, Mr. Caloz served as Chief Financial Officer of IRIS International Inc., a Chatsworth, CA based medical device manufacturer. He served as Chief Financial Officer of San Francisco-based Synarc, Inc., a medical imaging company, and from 1993 to 1999 he was Senior Vice President, Finance and Chief Financial Officer of Phoenix International Life Sciences Inc. of Montreal, Canada, which was acquired by MDS Inc. in 1999. Mr. Caloz was a partner at Rooney, Greig, Whitrod, Filion & Associates of Saint Laurent, Quebec, Canada, a firm of Chartered Accountants specializing in research and development and high tech companies, from 1983 to 1993. Mr. Caloz, a Chartered Accountant, holds a degree in Accounting from York University, Toronto, Canada.

Scott Wieland, Ph.D, joined CytRx in 2005 as the Vice President, Clinical and Regulatory Affairs and was promoted to the position of Senior Vice President, Drug Development in December 2008. Prior to that, he served in senior level positions in the areas of Drug Development, Clinical and Regulatory Affairs at various biotech firms. He spent five years at NeoTherapeutics, Inc. serving as the Director of Product Development and was later promoted to Vice President of Product Development. From 1990 to 1997, he served as Director of Regulatory Affairs at CoCensys, Inc. Dr. Wieland has a Ph.D. in Biopsychology and an M.A. in Psychology from the University of Arizona. He has an MBA from Webster University. Dr. Wieland received his B.S. in Physiological Psychology from the University of California, Santa Barbara.

Scott Geyer joined CytRx in November 2009 as our Senior Vice President, Manufacturing. Prior to joining CytRx, he served since May 2009, and also from May 2007 through November 2008, as Vice President, Technical Operations at Cerimon Pharmaceuticals, Inc. He previously served from December 2008 through April 2009 as Senior Vice President, Technical Operations & Product Development at TRF Pharma, Inc., from October 2004 through April 2007 as Vice President, Technical Operation at Xencor, Inc., and from October 2003 through February 2004 as Vice President, Manufacturing and Process Development at BioMarin Pharmaceuticals Inc. Mr. Geyer's past experience includes holding senior positions at Onyx Pharmaceuticals and Protein Design Labs, Inc., as well as positions at Ares-Sorono Group and SmithKline Beckman, among others. Mr. Geyer has co-authored numerous publications in

peer-reviewed journals. He holds an M.S. in veterinary microbiology from Texas A&M University and a B.S. in microbiology from the University of Southwestern Louisiana

Benjamin S. Levin, has been our General Counsel, Vice President — Legal Affairs and Corporate Secretary since July 2004. From November 1999 to June 2004, Mr. Levin was an associate in the transactions department of the Los Angeles office of O'Melveny & Myers LLP. Mr. Levin received his S.B. in Economics from the Massachusetts Institute of Technology, and a J.D. from Stanford Law School.

David J. Haen joined CytRx in October 2003 as Director of Business Development and was promoted to Vice President of Business Development in December 2007. From 1999 to 2003, Mr. Haen worked as an associate for Kriegsman Capital Group LLC, a financial advisory firm focused on emerging companies in the life sciences field. Mr. Haen received a B.A. in Communications and Business from Loyola Marymount University.

Diversity

Our board of directors, acting through the Nomination and Governance Committee, is responsible for assembling for shareholder consideration a group of director-nominees that, taken together, have the experience, qualifications, attributes, and skills appropriate for functioning effectively as a board. The Nomination and Governance Committee periodically reviews the composition of the board of directors in light of the company's changing requirements, its assessment of the board of directors' performance, and the input of shareholders and other key constituencies. The Nomination and Governance Committee looks for certain characteristics common to all board members, including integrity, strong professional reputation and record of achievement, constructive and collegial personal attributes, and the ability and commitment to devote sufficient time and energy to board service. In addition, the Nomination and Governance Committee seeks to include on the board of directors a complementary mix of individuals with diverse backgrounds and skills reflecting the broad set of challenges that the board of directors confronts. These individual qualities can include matters such as experience in the company's industry, technical experience (i.e., medical or research expertise), experience gained in situations comparable to the company's, leadership experience, and relevant geographical diversity.

Committees

Our business, property and affairs are managed by or under the direction of the board of directors. Members of the board are kept informed of our business through discussion with the chief executive and financial officers and other officers, by reviewing materials provided to them and by participating at meetings of the board and its committees.

Our board of directors currently has three committees. The Audit Committee, Compensation Committee, and Nomination and Governance Committee consist of Messrs. Selter, Link, and Wennekamp. Such committees operate under a formal charter, copies of which are available on our website at www.cytrx.com, that governs their duties and conduct.

Our board of directors has determined that Mr. Selter, one of the independent directors serving on our Audit Committee, is an "audit committee financial expert" as defined by the SEC's rules. Our board of directors has determined that Messrs. Link, Selter and Wennekamp are "independent" under the current independence standards of both The NASDAQ Capital Market and the SEC.

Section 16(a) Beneficial Ownership Reporting Compliance

Our executive officers and directors and any person who owns more than 10% of our outstanding shares of common stock are required under Section 16(a) of the Securities Exchange Act to file with the SEC initial reports of ownership and reports of changes in ownership of our common stock and to furnish us with copies of those reports. Based solely on our review of copies of reports we have received and written representations from certain reporting persons, we believe that our directors and executive officers and greater than 10% shareholders for 2009 complied with all applicable Section 16(a) filing requirements.

Code of Ethics

We have adopted a Code of Ethics applicable to all employees, including our principal executive officer, principal financial officer, and principal accounting officer or controller, a copy of which is available on our website at www.cytrx.com. We will furnish, without charge, a copy of our Code of Ethics upon request. Such requests should be directed to Attention: Corporate Secretary, 11726 San Vicente Boulevard, Suite 650, Los Angeles, California, or by telephone at 310-826-5648.

Board Leadership Structure

Our Board has placed the responsibilities of Chairman with an independent nonexecutive member of the Board, which we believe provides better accountability between the Board and our management team. We believe it is beneficial to have an independent Chairman whose sole responsibility to us is guiding our Board members as they provide leadership to our executive team. Our Chairman is responsible for communication among the directors; setting the Board meeting agendas in consultation with the President and Chief Executive Officer; and presiding at Board meetings, executive sessions and stockholder meetings. This delineation of duties allows the President and Chief Executive Officer to focus his attention on managing the day-to-day business of the company. We believe this structure provides strong leadership for our Board, while positioning our President and Chief Executive Officer as the leader of the company in the eyes of our employees and other stakeholders.

Board of Directors Role in Risk Oversight

In connection with its oversight responsibilities, our board of directors, including the Audit Committee, periodically assesses the significant risks that we face. These risks include, but are not limited to, financial, technological, competitive, and operational risks. Our board of directors administers its risk oversight responsibilities through our Chief Executive Officer and Chief Financial Officer, who review and assess the operations of our business as well as operating management's identification, assessment and mitigation of the material risks affecting our operations.

Item 11. EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

Overview of Executive Compensation Program

The Compensation Committee of our board of directors has responsibility for establishing, implementing and monitoring our executive compensation program philosophy and practices. The Compensation Committee seeks to ensure that the total compensation paid to our named executive officers is fair, reasonable and competitive. Generally, the types of compensation and benefits provided to the named executive officers are similar to those provided to our other officers.

Throughout this Annual Report, the individuals included in the Summary Compensation Table on page 53 are referred to as the "named executive officers."

Compensation Philosophy and Objectives

The components of our executive compensation consist of salary, annual cash bonuses awarded based on the Compensation Committee's subjective assessment of each individual executive's job performance, including evaluations of, during the past year, stock option grants to provide executives with longer-term incentives, and occasional special compensation awards (either cash, stock or stock options) to reward extraordinary efforts or results.

The Compensation Committee believes that an effective executive compensation program should provide base annual compensation that is reasonable in relation to individual executive's job responsibilities and reward the achievement of both annual and long-term strategic goals of our company. The Compensation Committee uses annual and other periodic cash bonuses to reward an officer's achievement of specific goals, including goals related to the development of the product's drug candidates and management of working capital, and employee stock options as a retention tool and as a means to align the executive's long-term interests with those of our stockholders, with the ultimate objective of affording our executives an appropriate incentive to improve stockholder value. The Compensation Committee evaluates both performance and compensation to maintain our company's ability to attract and retain excellent employees in key positions and to assure that compensation provided to key employees remains competitive relative to the compensation paid to similarly situated executives of comparable companies. To that end, the Compensation Committee believes executive compensation packages provided by us to our named executive officers should include both cash compensation and stock options.

Because of the size of our company, the small number of executive officers in our company, and our company's financial priorities, the Compensation Committee has not implemented any pension benefits, deferred compensation plans, or other similar plans for our named executive officers.

As a biopharmaceutical company engaged in developing potential products that, to date, have not generated significant revenues and are not expected to generate significant revenues or profits for several years, the

Compensation Committee also takes the company's financial and working capital condition into account in its compensation decisions. Accordingly, the Compensation Committee recently has weighted bonuses more heavily with stock options rather than cash. The Compensation Committee may periodically reassess the proper weighting of equity and cash compensation in light of the company's working capital situation from time to time.

Role of Executive Officers in Compensation Decisions

The Compensation Committee makes all compensation decisions for the named executive officers and approves recommendations made by our President and Chief Executive Officer regarding equity awards to our other officers. Decisions regarding the non-equity compensation of our other officers are made by our President and Chief Executive Officer.

The Compensation Committee and the President and Chief Executive Officer annually review the performance of each named executive officer (other than the President and Chief Executive Officer, whose performance is reviewed only by the Compensation Committee). The conclusions reached and recommendations based on these reviews, including with respect to salary adjustments and annual award amounts, are presented to the Compensation Committee. The Compensation Committee can exercise its discretion in modifying or declining any recommended adjustments or awards to executives.

Setting Executive Compensation

Based on the foregoing objectives, the Compensation Committee has structured the company's annual cash and incentive-based cash and non-cash executive compensation to seek to motivate our named executives to achieve the company's business goals, including goals related to the development of the our drug candidates and management of working capital, to reward the executives for achieving such goals, and to retain the executives. In doing so, the Compensation Committee historically has not employed outside compensation consultants. However, during 2009, the Compensation Committee obtained two third-party industry compensation surveys and used them in its compensation deliberations regarding cash and equity compensation for our executive officers. The Compensation Committee utilized this data to set compensation for our executive officers at levels targeted at or around the third quartile of compensation amounts provided to executives at comparable companies considering each individual's individual experience level related to their position with us. There is no pre-established policy or target for the allocation between either cash and non-cash incentive compensation.

2009 Executive Compensation Components

For 2009, the principal components of compensation for the named executive officers were:

- base salary;
- annual and special bonuses; and
- equity incentive compensation.

Base Salary

The Company provides named executive officers and other employees with base salary to compensate them for services rendered during the year. Base salary ranges for the named executive officers are determined for each named executive officer based on his position and responsibility.

During its review of base salaries for executives, the Compensation Committee primarily considers:

- the negotiated terms of each executive's employment agreement, if any;
- an internal review of the executive's compensation, both individually and relative to other named executive officers;

- each executive's individual performance; and
- base salaries paid by comparable companies.

Salary levels are typically considered annually as part of the company's performance review process, as well as upon a change in job responsibility. Merit-based increases to salaries are based on the company's available resources and the Compensation Committee's assessment of the individual's performance. Both assessments are based upon written evaluations of such criteria as job knowledge, communication, problem solving, initiative, goal-setting, and expense management. Base salaries for the named executive officers in 2009 were increased from the base salaries in effect during the prior year by amounts ranging from 15% for our Vice President – Legal Affairs and our Senior Vice President – Drug Development, to 18% for our President and Chief Executive Officer and our Chief Financial Officer.

Annual and Special Bonuses

The Compensation Committee has not established an incentive compensation program with fixed performance targets. Because we do not generate significant revenues and have not commercially released any products, the Compensation Committee bases its discretionary compensation awards on the achievement of product development targets and milestones, efforts related to extraordinary transactions, effective fund-raising efforts, and effective management of personnel and capital resources, among other criteria. During 2009, the Compensation Committee granted Mr. Kriegsman an annual cash bonus of $450,000, and granted cash bonuses to the other named executive officers ranging from $0 to $80,000, principally based on their efforts in helping us advance the development of our products and raise capital.

Equity Incentive Compensation

As indicated above, the Compensation Committee also aims to encourage the company's executive officers to focus on long-term company performance by allocating to them stock options that vest over a period of several years. In 2009, the Compensation Committee granted to Mr. Kriegsman nonqualified options to purchase 750,000 shares of our common stock at a price of $1.05 per share, which equaled the closing market price on the date of grant. The option vests monthly over three years, provided that Mr. Kriegsman continues in our employ through such monthly vesting periods. In addition, in connection with the annual review of our other named executive officers, the Compensation Committee also granted stock options to those named executive officers. All of these other stock options had an exercise price equal to the closing market price on the date of grant, and also vest monthly over three years, provided that such executives remain in our employ through such monthly vesting periods.

Retirement Plans, Perquisites and Other Personal Benefits

We have adopted a tax-qualified employee savings and retirement plan, the 401(k) Plan, for eligible U.S. employees, including our named executive officers. Eligible employees may elect to defer a percentage of their eligible compensation in the 401(k) Plan, subject to the statutorily prescribed annual limit. We may make matching contributions on behalf of all participants in the 401(k) Plan in an amount determined by our board of directors. We did not make any matching contribution to the 401(k) Plan for 2009. Matching and profit-sharing contributions, if any, are subject to a vesting schedule; all other contributions are at all times fully vested. We intend the 401(k) Plan, and the accompanying trust, to qualify under Sections 401(k) and 501 of the Internal Revenue Code so that contributions by employees to the 401(k) Plan, and income earned (if any) on plan contributions, are not taxable to employees until withdrawn from the 401(k) Plan, and so that we will be able to deduct our contributions, if any, when made. The trustee under the 401(k) Plan, at the direction of each participant, may invest the assets of the 401(k) Plan in any of a number of investment options.

We do not provide any of our executive officers with any other perquisites or personal benefits, other than benefits to Mr. Kriegsman provided for in his employment agreement. As required by his employment agreement, during 2009 we paid insurance premiums with respect to a life insurance policy for Mr. Kriegsman which had a face value of approximately $1.4 million as of December 31, 2009 and under which Mr. Kriegsman's designee is the beneficiary.

Employment Agreements and Severance Arrangements

We have entered into written employment agreements with each of our named executive officers. The main purpose of these agreements is to protect the company from business risks such as competition for the executives' service, loss of confidentiality or trade secrets, and solicitation of our other employees, and to define our right to terminate the employment relationship. The employment agreements also protect the executive from termination without "cause" (as defined) and, in Mr. Kriegsman's case, entitles him to resign for "good reason" (as defined). Each employment

agreement was individually negotiated, so there are some minor variations in the terms among executive officers. Generally speaking, however, the employment agreements provide for termination and severance benefits that the Compensation Committee believes are consistent with industry practices for similarly situated executives. The Compensation Committee believes that the termination and severance benefits help the company retain the named executive officers by providing them with a competitive employment arrangement and protection against unknowns such as termination without “cause” that go along with the position.

In the event of termination without "cause," the named executive officers will be entitled to a lump-sum payment equal to six months of base salary (24 months in the case of Mr. Kriegsman). Mr. Kriegsman's employment agreement also provides for our continuation of Mr. Kriegsman's life insurance and medical benefits during his 24-month severance period. If Mr. Kriegsman's employment is terminated by us without "cause," or by Mr. Kriegsman for "good reason," within two years following a change of control of CytRx, he also would be entitled under his employment agreement to receive a "gross-up" payment equal to the sum of any excise tax on his termination benefits (including any accelerated vesting of his options under our Plans as described below) plus any penalties and interest.

Change of Control Arrangements

The company's 2000 Long-Term Incentive Plan and 2008 Stock Incentive Plan provide generally that, upon a change of control of CytRx, all unvested stock options and awards under the Plans held by plan participants, including the named executive officers, will become immediately vested and exercisable immediately prior to the effective date of the transaction. The Compensation Committee believes that such "single trigger" change of control policy is consistent with the objective of aligning the interests of the named executive officer's and of the company's stockholders by allowing the executives to participate equally with stockholders in the event of a change of control transaction.

The foregoing severance and change of control arrangements, including the quantification of the payment and benefits provided under these arrangements, are described in more detail elsewhere in this Annual Report under the heading "Executive Compensation – Potential Payments Upon Termination or Change of Control."

Ownership Guidelines

The Compensation Committee has no requirement that each named executive officer maintain a minimum ownership interest in our company.

Our long-term incentive compensation consists solely of periodic grants of stock options to our named executive officers. The stock option program:

- links the creation of stockholder value with executive compensation;
- provides increased equity ownership by executives;
- functions as a retention tool, because of the vesting features included in all options granted by the Compensation Committee; and
- maintains competitive levels of total compensation.

We normally grant stock options to new executive officers when they join our company based upon their position with us and their relevant prior experience. The options granted by the Compensation Committee generally vest monthly over the first three years of the ten-year option term. Vesting and exercise rights cease upon termination of employment (or, in the case of exercise rights, 90 days thereafter), except in the case of death (subject to a one-year limitation), disability or retirement. Prior to the exercise of an option, the holder has no rights as a stockholder with respect to the shares subject to such option, including voting rights and the right to receive dividends or dividend equivalents. In addition to the initial option grants, our Compensation Committee may grant additional options to retain our executives and reward, or provide incentive for, the achievement of corporate goals and strong individual performance. Our board of directors has granted our President and Chief Executive Officer discretion to grant up to 100,000 options to employees upon joining our company, and to make grants from an additional "discretionary pool" of up to 100,000 options during each annual employee review cycle. Options are granted based on a combination of

individual contributions to our company and on general corporate achievements, which may include the attainment of product development milestones (such as commencement and completion of clinical trials) and attaining other annual corporate goals and objectives. On an annual basis, the Compensation Committee assesses the appropriate individual and corporate goals for our executives and provides additional option grants based upon the achievement by the new executives of both individual and corporate goals. We expect that we will continue to provide new employees with initial option grants in the future to provide long-term compensation incentives and will continue to rely on performance-based and retention grants to provide additional incentives for current employees. Additionally, in the future, the Compensation Committee may consider awarding additional or alternative forms of equity incentives, such as grants of bonus stock, restricted stock and restricted stock units.

It is our policy to award stock options at an exercise price equal to The NASDAQ Capital Market's closing price of our common stock on the date of the grant. In certain limited circumstances, the Compensation Committee may grant options to an executive at an exercise price in excess of the closing price of the common stock on the grant date. The Compensation Committee has never granted options with an exercise price that is less than the closing price of our common stock on the grant date, nor has it granted options which are priced on a date other than the grant date. For purposes of determining the exercise price of stock options, the grant date is deemed to be the first day of employment for newly hired employees, or the date on which the Compensation Committee or the Chief Executive Officer, as applicable, approves the stock option grant to existing employees.

We have no program, practice or plan to grant stock options to our executive officers, including new executive officers, in coordination with the release of material nonpublic information. We also have not timed the release of material nonpublic information for the purpose of affecting the value of stock options or other compensation to our executive officers, and we have no plan to do so. We have no policy regarding the adjustment or recovery of stock option awards in connection with the restatement of our financial statements, as our stock option awards have not been tied to the achievement of specific financial goals.

Tax and Accounting Implications

Deductibility of Executive Compensation

As part of its role, the Compensation Committee reviews and considers the deductibility of executive compensation under Section 162(m) of the Internal Revenue Code, which provides that corporations may not deduct compensation of more than $1,000,000 that is paid to certain individuals. We believe that compensation paid to our executive officers generally is fully deductible for federal income tax purposes.

Accounting for Share-Based Compensation

Beginning on January 1, 2006, we began accounting for share-based compensation in accordance with the requirements of FASB Statement 123(R), Share-Based Payment. This accounting treatment has not significantly affected our compensation decisions. The Compensation Committee takes into consideration the tax consequences of compensation to the named executive officers, but tax considerations are not a significant part of the company's compensation policy.

Benchmarking

The Compensation Committee does not attempt to establish or measure executive compensation against any benchmarks. With certain exceptions, our company's compensation policies are not related specifically to our company's performance, which is just one of the factors considered by us and our Compensation Committee in establishing base salaries and awarding discretionary compensation. We have not established any policy regarding recoupment, or "clawback," of any performance-based compensation in the event our company's historical performance is subsequently revised or restated in a way that would have produced a lower compensation amount. We also have not relied upon wealth accumulation analyses, or "tally sheets," or internal pay equity analyses in making executive compensation decisions.

Compensation Committee Interlocks and Insider Participation in Compensation Decisions

There are no "interlocks," as defined by the SEC, with respect to any member of the Compensation Committee. Max Link, Ph.D., Marvin R. Selter and Richard L. Wennekamp all served as members of the Compensation Committee during 2009.

Compensation Committee Report

The Compensation Committee has reviewed and discussed with management the "Compensation Discussion and Analysis" required by Item 402(b) of Regulation S-K and, based on such review and discussions, has recommended to our board of directors that the foregoing "Compensation Discussion and Analysis" be included in this Annual Report.

Richard L. Wennekamp, Chairman Marvin R. Selter Dr. Max Link

Summary Compensation Table

The following table presents summary information concerning all compensation paid or accrued by us for services rendered in all capacities during 2009, 2008 and 2007 by Steven A. Kriegsman and John Y. Caloz, who are the only individuals who served as our principal executive and financial officers during the year ended December 31, 2009, and our three other most highly compensated executive officers who were serving as executive officers as of December 31, 2009:

Summary Compensation Table

Name and Principal Position	Year	Salary ($)	Bonus ($)(1)	Option Awards ($) (2)	All Other Compensation ($)(3)	Total ($)
Steven A. Kriegsman						
President and Chief Executive Officer	2009	550,000	450,000	906,000	10,000	1,916,000
	2008	551,000	150,000	517,800	10,000	1,228,800
	2007	524,767	300,000	1,328,600	—	2,153,367
John Y. Caloz						
Chief Financial Officer and Treasurer	2009	275,000	80,000	137,750	—	492,750
Daniel Levitt, M.D., M.D., Ph.D.						
Chief Medical Officer	2009	83,894	—	405,000	—	488,894
Benjamin S. Levin General Counsel,						
General Counsel, Vice President — Legal	2009	276,000	75,000	119,100	—	470,100
Affairs and Secretary	2008	276,000	55,000	125,300	—	456,300
	2007	250,000	100,000	407,000	—	730,000
Scott Wieland, Ph.D.						
Senior Vice President – Drug Development	2009	275,000	75,000	105,750	—	455,750
	2008	255,500	73,250	28,580	—	372,480
	2007	134,000	35,000	447,925	—	587,750

(1) Bonuses to the named executive officers reported above relating to 2009 were paid in December 2009. Bonuses to the named executive officers reported above relating to 2008 were paid in December 2008. Bonuses to the named executive officers reported above relating to 2007 were paid in April 2008.

(2) The values shown in this column represent the aggregate grant date fair value of equity-based awards granted during the fiscal year, in accordance with ASC 718, “Share Based-Payment”. At the 2009 Annual Meeting of Stockholders held on July 1, 2009, the Company’s stockholders approved an amendment to the Company’s 2000 Long-Term Incentive Plan to allow for a one-time stock option re-pricing program for employees and officers. Pursuant to the re-pricing program, 3,265,500 eligible stock options held by ten eligible employees and officers were amended to reduce the exercise prices of the options to $1.15 per share, which was the closing sale

price of CytRx's common stock as reported on The NASDAQ Capital Market on the July 1, 2009 completion date of the re-pricing program, and to impose a new option vesting schedule. The values in this column include the incremental increase in the fair value of the re-priced options over the fair value of the original award. The fair value of the stock options at the date of grant was estimated using the Black-Scholes option-pricing model, based on the assumptions described in Note 15 of the Notes to Financial Statements included in this Annual Report.

(3) This amount represents life insurance premiums.

2009 Grants of Plan-Based Awards

In 2009, we granted stock options to our named executive officers under our 2000 Long-Term Incentive Plan and 2008 Stock Incentive Plan as follows:

2008 Grants of Plan-Based Awards

Name	Grant Date	All Other Option Awards (# of CytRx Shares)	Exercise Price of Option Awards ($/Share)	Grant Date Fair Value of Option Awards ($)
Steven A. Kriegsman	12/10/2009	750,000	$ 1.05	$ 609,000
President and Chief Executive Officer				
John Y. Caloz	12/10/2009	125,000	$ 1.05	$ 101,500
Chief Financial Officer and Treasurer	1/2/2009	50,000	0.30	11,750
Daniel Levitt, M.D., Ph.D.	10/12/2009	500,000	$ 1.06	$ 405,000
Chief Medical Officer				
Benjamin S. Levin	12/10/2009	100,000	$ 1.05	$ 81,200
General Counsel, Vice President — Legal Affairs and Secretary				
Scott Wieland, Ph.D.	12/10/2009	100,000	$ 1.05	$ 81,200
Senior Vice President – Drug Development				

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2000 Long-Term Incentive Plan and 2008 Stock Incentive Plan

The purpose of our 2000 Long-Term Incentive Plan, or 2000 Plan, and our 2008 Stock Incentive Plan, or 2008 Plan, is to promote our success and enhance our value by linking the personal interests of our employees, officers, consultants and directors to those of our stockholders. The 2000 Plan was originally adopted by our Board of Directors on August 24, 2000 and by our stockholders on June 7, 2001, with certain amendments to the Plan having been subsequently approved by our Board of Directors and stockholders. On May 11, 2009, our Board of Directors approved an amendment to the 2000 Plan to allow for a one-time stock option re-pricing program for our employees. The 2008 Plan was adopted by our Board of Directors on November 21, 2008 and by our stockholders on July 1, 2009.

2000 Plan and 2008 Plan Descriptions

The 2000 Plan and the 2008 Plan, or the Plans, are administered by the Compensation Committee of our Board of Directors. The Compensation Committee has the power, authority and discretion to:

- designate participants;
- determine the types of awards to grant to each participant and the number, terms and conditions of any award;
-

establish, adopt or revise any rules and regulations as it may deem necessary or advisable to administer the Plan; and

- make all other decisions and determinations that may be required under, or as the Compensation Committee deems necessary or advisable to administer, the Plan.

Awards

The following is summary description of financial instruments that may be granted to participants by the Compensation Committee of our Board of Directors. The Compensation Committee to date has only granted stock options to participants in the Plans.

Stock Options. The Compensation Committee is authorized to grant both incentive stock options and non-qualified stock options. The terms of any incentive stock option must meet the requirements of Section 422 of the Internal Revenue Code. The exercise price of an option may not be less than the fair market value of the underlying stock on the date of grant, and no option may have a term of more than 10 years from the grant date.

Stock Appreciation Rights. The Compensation Committee may grant stock appreciation rights to participants. Upon the exercise of a stock appreciation right, the participant has the right to receive the excess, if any, of (1) the fair market value of one share of common stock on the date of exercise, over (2) the grant price of the stock appreciation right as determined by the Compensation Committee, which will not be less than the fair market value of one share of common stock on the date of grant.

Restricted Stock. The Compensation Committee may make awards of restricted stock, which will be subject to such restrictions on transferability and other restrictions as the Compensation Committee may impose (including limitations on the right to vote restricted stock or the right to receive dividends, if any, on the restricted stock).

Performance Units. The Compensation Committee may grant under the 2000 Plan performance units on such terms and conditions as may be selected by the Compensation Committee. The Compensation Committee will have the complete discretion to determine the number of performance units granted to each participant and to set performance goals and other terms or conditions to payment of the performance units which, depending on the extent to which they are met, will determine the number and value of performance units that will be paid to the participant.

Dividend Equivalents. The Compensation Committee is authorized to grant under the 2000 Plan dividend equivalents to participants subject to such terms and conditions as may be selected by the Compensation Committee. Dividend equivalents entitle the participant to receive payments equal to dividends with respect to all or a portion of the number of shares of common stock subject to an option or other award, as determined by the Compensation Committee. The Compensation Committee may provide that dividend equivalents be paid or distributed when accrued or be deemed to have been reinvested in additional shares of common stock, or otherwise reinvested.

Other Stock-Based Awards. The Compensation Committee may grant other awards under the 2000 Plan that are payable in, valued in whole or in part by reference to, or otherwise based on or related to shares of common stock, as deemed by the Compensation Committee to be consistent with the purposes of the 2000 Plan. These stock-based awards may include shares of common stock awarded as a bonus and not subject to any restrictions or conditions, convertible or exchangeable debt securities, other rights convertible or exchangeable into shares of common stock, and awards valued by reference to book value of shares of common stock or the value of securities of or the performance of our subsidiaries. The Compensation Committee will determine the terms and conditions of any such awards.

Performance Goals. The Compensation Committee in its discretion may determine awards under the 2000 Plan based on:

- the achievement by CytRx or a parent or subsidiary of a specific financial target;
- CytRx’s stock price;
- the achievement by an individual or a business unit of CytRx or a subsidiary of a specific financial target;
- the achievement of specific goals with respect to (i) product development milestones, (ii) corporate financings, (iii) merger and acquisition activities, (iv) licensing transactions, (v) development of strategic partnerships or alliances, or (vi) acquisition or development of new technologies; and

- any combination of the goals set forth above.

The Compensation Committee has the right for any reason to reduce (but not increase) any award, even if a specific goal has been achieved. If an award is made on the basis of the achievement of a goal, the Compensation Committee must have established the goal before the beginning of the period for which the performance goal relates (or a later date as may be permitted under Internal Revenue Code Section 162(m)). Any payment of an award for achieving a goal will be conditioned on the written certification of the Compensation Committee in each case that the goals and any other material conditions were satisfied.

Limitations on Transfer; Beneficiaries. Awards under the Plans may not be transferred or assigned by participants other than by will or the laws of descent and distribution and, in the case of an incentive stock option, pursuant to a qualified domestic relations order, provided that the Compensation Committee may (but need not) permit other transfers where the Compensation Committee concludes that such transferability (1) does not result in accelerated taxation, (2) does not cause any option intended to be an incentive stock option to fail to qualify as such, and (3) is otherwise appropriate and desirable, taking into account any factors deemed relevant, including any state or federal tax or securities laws or regulations applicable to transferable awards. A participant may, in the manner determined by the Compensation Committee, designate a beneficiary to exercise the participant's rights and to receive any distribution with respect to any award upon the participant's death.

Acceleration Upon Certain Events. In the event of a "Change in Control" of CytRx, which is a term defined in the Plans, all outstanding options and other awards in the nature of rights that may be exercised will become fully vested and exercisable and all restrictions on all outstanding awards will lapse. The Compensation Committee may, however, in its sole discretion declare all outstanding options, stock appreciation rights and other awards in the nature of rights that may be exercised to become fully vested and exercisable, and all restrictions on all outstanding awards to lapse, in each case as of such date as the Compensation Committee may, in its sole discretion, declare. The Compensation Committee may discriminate among participants or among awards in exercising such discretion.

Termination and Amendment

Our Board of Directors or the Compensation Committee may, at any time and from time to time, terminate or amend the Plans without stockholder approval; provided, however, that our board or the Compensation Committee may condition any amendment on the approval of our stockholders if such approval is necessary or deemed advisable with respect to tax, securities or other applicable laws, policies or regulations. No termination or amendment of the Plans may adversely affect any award previously granted without the written consent of the participants affected. The Compensation Committee may amend any outstanding award without the approval of the participants affected, except that no such amendment may diminish the value of an award determined as if it has been exercised, vested, cashed in or otherwise settled on the date of such amendment, and, except as otherwise permitted in the Plan, the exercise price of any option may not be reduced and the original term of any option may not be extended.

Holdings of Previously Awarded Equity

Equity awards held as of December 31, 2009 by each of our named executive officers were issued under our 2000 Plan, except for the most recent equity award to Mr. Kriegsman, which was issued under our 2008 Plan. The following table sets forth outstanding equity awards held by our named executive officers as of December 31, 2009:

2009 Outstanding Equity Awards at Fiscal Year-End

	Option Awards			
	Number of Securities Underlying Unexercised Options (#)		Option Exercis Price (3)	Option Expiration
Name	Exercisable	Unexercisable	($)	Date
Steven A. Kriegsman	—	(1) 750,000	1.05	12/10/19
President and Chief Executive Officer	99,972	(1) 200,028	0.37	11/21/18
	250,056	(1) 199,944	1.15	4/07/18
	252,805	(1) 97,195	1.15	4/18/17
	200,000	(1) —	1.15	6/16/16
	300,000	(1) —	0.79	5/17/15
	250,000	(2) —	1.15	6/19/13
	750,000	(2) —	1.15	6/20/13
John Y. Caloz	—	(1) 125,000	1.05	12/10/19
Chief Financial Officer and Treasurer	15,288	(1) 34,713	0.30	01/02/19
	8,335	(2) 16,665	1.15	04/07/18
	8,335	(2) 16,665	1.15	12/06/17
	25,005	(2) 49,995	1.15	10/26/17
Daniel Levitt, M.D., Ph.D.	27,910	(1) 472,090	1.06	11/21/18
Chief Medical Officer				
Benjamin S. Levin	—	(1) 100,000	1.05	12/10/19
General Counsel, Vice President — Legal	36,100	(1) 63,900	0.37	11/21/18
Affairs and Secretary	30,575	(1) 69,425	1.15	4/07/18
	72,230	(1) 27,770	1.15	4/18/17
	90,000	(1) —	1.15	6/16/16
	150,000	(1) —	0.79	5/17/15
	160,000	(2) —	1.15	7/15/14
Scott Wieland, Ph.D.	—	(1) 100,000	1.05	12/10/19
Senior Vice President – Drug Development	8,335	(2) 16,665	1.15	11/21/18
	8,335	(2) 16,665	1.15	12/06/17
	50,000	(2) 25,000	1.15	4/30/17

(1) These options vest in 36 equal monthly installments, subject to the option holder's remaining in our continuous employ through such dates.

(2)

These options vest in three annual installments, subject to the option holder's remaining in our continuous employ through such dates.

(3) The reported options with prices of $1.15 were re-priced to that exercise price on July 1, 2009 at $1.15.

Option Exercises and Stock Vested

There were no exercises of stock options by any of our named executive officers during 2009.

Employment Agreements and Potential Payment upon Termination or Change in Control

Employment Agreement with Steven A. Kriegsman

Mr. Kriegsman is employed as our Chief Executive Officer and President pursuant to an employment agreement that was amended as of May 2009 to continue through December 31, 2012. The employment agreement will automatically renew in December 2012 for an additional one-year period, unless either Mr. Kriegsman or we elect not to renew it.

Under his employment agreement as amended, Mr. Kriegsman is entitled to receive an annual base salary of $650,000. Our board of directors (or its Compensation Committee) will review the base salary annually and may increase (but not decrease) it in its sole discretion. In addition to his annual salary, Mr. Kriegsman is eligible to receive an annual bonus as determined by our board of directors (or its Compensation Committee) in its sole discretion, but not to be less than $150,000. Pursuant to his employment agreement with us, we have agreed that he shall serve on a full-time basis as our Chief Executive Officer and President and that he may continue to serve as Chairman of the Kriegsman Group only so long as necessary to complete certain current assignments.

Mr. Kriegsman is eligible to receive grants of options to purchase shares of our common stock. The number and terms of those options, including the vesting schedule, will be determined by our board of directors (or its Compensation Committee) in its sole discretion.

Under Mr. Kriegsman's employment agreement, we have agreed that, if he is made a party, or threatened to be made a party, to a suit or proceeding by reason of his service to us, we will indemnify and hold him harmless from all costs and expenses to the fullest extent permitted or authorized by our certificate of incorporation or bylaws, or any resolution of our board of directors, to the extent not inconsistent with Delaware law. We also have agreed to advance to Mr. Kriegsman such costs and expenses upon his request if he undertakes to repay such advances if it ultimately is determined that he is not entitled to indemnification with respect to the same. These employment agreement provisions are not exclusive of any other rights to indemnification to which Mr. Kriegsman may be entitled and are in addition to any rights he may have under any policy of insurance maintained by us.

In the event we terminate Mr. Kriegsman's employment without "cause" (as defined), or if Mr. Kriegsman terminates his employment with "good reason" (as defined), (i) we have agreed to pay Mr. Kriegsman a lump-sum equal to his salary and prorated minimum annual bonus through to his date of termination, plus his salary and minimum annual bonus for a period of two years after his termination date, or until the expiration of the amended and restated employment agreement, whichever is later, (ii) he will be entitled to immediate vesting of all stock options or other awards based on our equity securities, and (iii) he will also be entitled to continuation of his life insurance premium payments and continued participation in any of our health plans through to the later of the expiration of the amended and restated employment agreement or 24 months following his termination date. Mr. Kriegsman will have no obligation in such events to seek new employment or offset the severance payments to him by any compensation received from any subsequent reemployment by another employer.

Under Mr. Kriegsman's employment agreement, he and his affiliated company, The Kriegsman Group, are to provide us during the term of his employment with the first opportunity to conduct or take action with respect to any acquisition opportunity or any other potential transaction identified by them within the biotech, pharmaceutical or health care industries and that is within the scope of the business plan adopted by our board of directors. Mr. Kriegsman's employment agreement also contains confidentiality provisions relating to our trade secrets and any other proprietary or confidential information, which provisions shall remain in effect for five years after the expiration of the employment agreement with respect to proprietary or confidential information and for so long as our trade secrets remain trade secrets.

Potential Payment upon Termination or Change in Control for Steven A. Kriegsman

Mr. Kriegsman's employment agreement contains no provision for payment to him in the event of a change in control of CytRx. If, however, a change in control (as defined in our 2000 Long-Term Incentive Plan) occurs during the term of the employment agreement, and if, during the term and within two years after the date on which the change in control occurs, Mr. Kriegsman's employment is terminated by us without cause or by him for good reason (each as defined in his employment agreement), then, in addition to the severance benefits described above, to the extent that any payment or distribution of any type by us to or for the benefit of Mr. Kriegsman resulting from the termination of his employment is or will be subject to the excise tax imposed under Section 4999 of the Internal Revenue Code of 1986, as amended, we have agreed to pay Mr. Kriegsman, prior to the time the excise tax is payable with respect to any such payment (through withholding or otherwise), an additional amount that, after the imposition of all income, employment, excise and other taxes, penalties and interest thereon, is equal to the sum of (i) the excise tax on such payments plus (ii) any penalty and interest assessments associated with such excise tax.

Employment Agreement with Daniel Levitt, M.D., Ph.D.

Daniel Levitt is employed as our Chief Medical Officer pursuant to an employment agreement dated as of October 12, 2009 that expires on December 31, 2010. Dr. Levitt is entitled under his employment agreement to receive an annual base salary of $375,000 and is eligible to receive an annual bonus as determined by our board of directors (or our Compensation Committee) in its sole discretion, but not to be less than 25% of his 2010 base salary. As an incentive to enter into his employment agreement, we granted Dr. Levitt a ten-year non-qualified stock option under our 2000 Long-Term Incentive Plan to purchase up to 500,000 shares of our common stock at an exercise price of $1.06 per share, which equaled the market price of our common stock on October 12, 2009 as reported in The NASDAQ Capital Market. The option will vest ratably in 36 equal monthly installments commencing on the first monthly anniversary of the grant date and continuing on each successive monthly anniversary of the grant date until the option becomes fully vested, subject to Mr. Geyer remaining in our continuous employ through such monthly vesting periods.

In the event we terminate Dr. Levitt's employment without cause (as defined), we have agreed to pay him a lump-sum equal to his accrued but unpaid salary and vacation, plus an amount equal to six months' salary under his employment agreement.

Employment Agreement with John Y. Caloz

John Y. Caloz is employed as our Chief Financial Officer and Treasurer pursuant to an employment agreement dated as of January 1, 2010 that expires on December 31, 2010. Mr. Caloz is entitled under his employment agreement to receive an annual base salary of $325,000 and is eligible to receive an annual bonus as determined by our board of directors (or our Compensation Committee) in its sole discretion.

In the event we terminate Mr. Caloz's employment without cause (as defined), we have agreed to pay him a lump-sum equal to his accrued but unpaid salary and vacation, plus an amount equal to six months' salary under his employment agreement.

Employment Agreement with Scott Wieland, Ph.D.

Scott Wieland is employed as our Senior Vice President — Drug Development pursuant to an employment agreement dated as of January 1, 2010 that expires on December 31, 2010. Dr. Wieland is paid an annual base salary of $315,000 and is eligible to receive an annual bonus as determined by our board of directors (or our Compensation Committee) in its sole discretion.

In the event we terminate Dr. Wieland's employment without "cause" (as defined), we have agreed to pay him a lump-sum equal to his accrued but unpaid salary and vacation, plus an amount equal to six months' base salary.

Employment Agreement with Benjamin S. Levin

Benjamin S. Levin is employed as our Vice President — Legal Affairs, General Counsel and Secretary pursuant to an employment agreement dated as of January 1, 2010 that expires on December 31, 2010. Mr. Levin is paid an annual base salary of $315,000 and is eligible to receive an annual bonus as determined by our board of directors (or our Compensation Committee) in its sole discretion.

In the event we terminate Mr. Levin's employment without "cause" (as defined), we have agreed to pay him a lump-sum equal to his accrued but unpaid salary and vacation, plus an amount equal to six months' base salary.

Employment Agreement with Scott Geyer

Scott Geyer is employed as our Senior Vice President — Manufacturing pursuant to an employment agreement dated as of November 30, 2009 that expires on December 31, 2010. Mr. Geyer is paid an annual base salary of $290,000 and is eligible to receive an annual bonus as determined by our board of directors (or our Compensation Committee) in its sole discretion. As an incentive to enter into his employment agreement, we granted Mr. Geyer a ten-year non-qualified stock option under our 2000 Long-Term Incentive Plan to purchase up to 150,000 shares of our common stock at an exercise price of $0.96 per share, which equaled the market price of our common stock on November 30, 2009 as reported in The NASDAQ Stock Market. The option will vest ratably in36 equal monthly installments commencing on the first monthly anniversary of the grant date and continuing on each successive monthly anniversary of the grant date until the option becomes fully vested, subject to Mr. Geyer remaining in our continuous employ through such monthly vesting periods.

In the event we terminate Mr. Geyer's employment without cause (as defined), we have agreed to pay him a lump-sum equal to his accrued but unpaid salary and vacation, plus an amount equal to six months' salary under his employment agreement.

Quantification of Termination Payments and Benefits

The table below reflects the amount of compensation to each of our named executive officers in the event of termination of such executive's employment without "cause" or his resignation for "good reason," termination following a change in control and termination upon the executive's death of permanent disability. The named executive officers are not entitled to any payments other than accrued compensation and benefits in the event of their voluntary resignation. The amounts shown in the table below assume that such termination was effective as of December 31, 2009, and thus includes amounts earned through such time, and are estimates only of the amounts that would be payable to the executives. The actual amounts to be paid will be determined upon the occurrence of the events indicated.

Termination Payments and Benefits

Name	Benefit	Termination w/o Cause or for Good Reason Before Change in Control ($)	Termination w/o Cause or for Good Reason After Change in Control ($)	Death ($)	Disability ($)	Change in Control ($)
Steven A. Kriegsman	Severance Payment(4)	1,100,000	1,100,000	1,100,000	1,100,000	—
President and Chief	Stock Options (1)	—	—	—	—	—
Executive Officer	Health Insurance (2)	87,420	87,420	—	87,420	87,420
	Life Insurance	10,000	10,000	—	10,000	—
	Bonus	300,000	300,000	300,000	300,000	—
	Tax Gross Up (3)	—	0	—	—	—
John Y. Caloz	Severance Payment(4)	137,500	137,500	—	—	—
Chief Financial Officer	Stock Options (1)	—	—	—	—	—
Daniel Levitt, M.D., Ph.D.	Severance Payment(4)	187,500	187,500	—	—	—
Chief Medical Officer	Stock Options (1)	—	—	—	—	—
Benjamin S. Levin	Severance Payment	137,500	137,500	—	—	—
General Counsel, Vice	Stock Options (1)	—	—	—	—	—
President — Legal Affairs and Secretary						
Scott Wieland, Ph.D.	Severance Payment(4)	137,500	137,500	—	—	—
Senior Vice President –	Stock Options (1)	—	—	—	—	—
Drug Development						

(1) Represents the aggregate value of stock options that vest and become exercisable immediately upon each of the triggering events listed as if such events took place on December 31, 2009, determined by the aggregate difference between the stock price as of December 31, 2009 and the exercise prices of the underlying options.

(2) Represents the cost as of December 31, 2009 for the family health benefits provided to Mr. Kriegsman for a period of two years.

(3) Mr. Kriegsman's employment agreement provides that if a change in control (as defined in our 2000 Long-Term Incentive Plan) occurs during the term of the employment agreement, and if, during the term and within two years after the date on which the change in control occurs, Mr. Kriegsman's employment is terminated by us without "cause" or by him for "good reason" (each as defined in his employment agreement), then, to the extent that any payment or distribution of any type by us to or for the benefit of Mr. Kriegsman resulting from the termination of his employment is or will be subject to the excise tax imposed under Section 4999 of the Internal Revenue Code of 1986, as amended, we will pay Mr. Kriegsman, prior to the time the excise tax is payable with respect to any such payment (through withholding or otherwise), an additional amount that, after the imposition of all income, employment, excise and other taxes, penalties and interest thereon, is equal to the sum of (i) the excise tax on such payments plus (ii) any penalty and interest assessments associated with such excise tax. Based on Mr. Kriegsman's past compensation and the estimated payment that would result from a termination of his employment following a change in control, we have estimated that a gross-up payment would not be required. "Good reason" as defined in Mr. Kriegsman's employment agreement includes any change in Mr. Kriegsman's duties or title that are inconsistent with his position as Chief Executive Officer.

(4) Severance payments are prescribed by our employment agreements with the named executive officers and represent a factor of their annual base compensation ranging from six months to two years.

Compensation of Directors

The following table sets forth the compensation paid to our directors other than our Chief Executive Officer for 2009:

Director Compensation Table

Name (1)	Fees Earned or Paid in Cash ($) (2)	Option Awards ($) (3)	Total ($)
Max Link, Ph.D. Chairman	132,250	44,400	176,650
Marvin R. Selter Vice Chairman	112,250	44,400	156,650
Louis Ignarro, Ph.D. Director	37,500	44,400	81,900
Joseph Rubinfeld, Ph.D. Director	79,000	44,400	123,400
Richard L. Wennekamp Director	112,250	44,400	156,650

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(1) Steven A. Kriegsman does not receive additional compensation for his role as a Director. For information relating to Mr. Kriegsman's compensation as President and Chief Executive Officer, see the Summary Compensation Table above.

(2) The amounts in this column represent cash payments made to Non-Employee Directors for attendance at meetings during the year.

(3) In July 2009, we granted stock options to purchase 50,000 shares of our common stock at an exercise price equal to the current market value of our common stock to each non-employee director, which had a grant date fair value of $44,400 calculated in accordance with FASB ASC Topic 718, excluding the effect of estimated forfeitures related to service-based vesting conditions. The amount recognized for these awards was calculated using the Black Scholes option-pricing model, and reflect grants from our 2000 Long-Term Incentive Plan, which is described in Note 15 of the Notes to Consolidated Financial Statements.

We use a combination of cash and stock-based compensation to attract and retain qualified candidates to serve on our board of directors. Directors who also are employees of our company currently receive no compensation for their service as directors or as members of board committees. In setting director compensation, we consider the significant amount of time that directors dedicate to the fulfillment of their director responsibilities, as well as the competency and skills required of members of our board. The directors' current compensation schedule has been in place since May 2009. The directors' annual compensation year begins with the annual election of directors at the annual meeting of stockholders. The annual retainer year period has been in place for directors since 2003. Periodically, our board of directors reviews our director compensation policies and, from time to time, makes changes to such policies based on various criteria the board deems relevant.

Our non-employee directors receive a quarterly retainer of $6,000 (plus an additional $12,500 for the Chairman of the Board, $5,000 for the Chairman of the Audit Committee, and $1,500 for the Chairmen of the Nomination and Governance Committee and the Compensation Committee), a fee of $3,000 for each board meeting attended ($750 for

board actions taken by unanimous written consent), $2,000 for each meeting of the Audit Committee attended, and $1,000 for each other committee meeting attended. Non-employee directors who serve as the chairman of a board committee receive an additional $2,000 for each meeting of the Nomination and Governance Committee or the Compensation Committee attended and an additional $2,500 for each meeting attended of the audit committee. In July 2009, we granted stock options to purchase 50,000 shares of our common stock at an exercise price equal to the current market value of our common stock to each non-employee director. The options were vested, in full, upon grant.

Joseph Rubinfeld, Ph.D. Consulting Agreement

On December 2, 2008, we entered into a written consulting agreement with Joseph Rubinfeld, Ph.D., under which Dr. Rubinfeld agrees to serve as our Chief Scientific Advisor. In exchange, we granted to Dr. Rubinfeld under our 2008 Stock Incentive Plan a ten-year stock option to purchase up to 350,000 shares of our common stock at an exercise price of $0.35 per share, which equaled the market price of our common stock as of the grant date. The stock option vested immediately upon grant as to 50,000 of the option shares and will vest as to the remaining option shares in 36 equal monthly installments, subject in each case to Dr. Rubinfeld remaining in our service through such dates. We also agree in the consulting agreement to pay Dr. Rubinfeld a monthly fee of $1,000. The consulting agreement is terminable at any time by either party upon notice to the other party.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Based solely upon information made available to us, the following table sets forth information with respect to the beneficial ownership of our common stock as of March 12, 2010 by (1) each person who is known by us to beneficially own more than five percent of our common stock; (2) each of our directors; (3) the named executive officers listed in the Summary Compensation Table under Item 11; and (4) all of our executive officers and directors as a group. Beneficial ownership is determined in accordance with the SEC rules. Shares of common stock subject to any warrants or options that are presently exercisable, or exercisable within 60 days of March 12, 2010 (which are indicated by footnote) are deemed outstanding for the purpose of computing the percentage ownership of the person holding the warrants or options, but are not treated as outstanding for the purpose of computing the percentage ownership of any other person. The percentage ownership reflected in the table is based on 108,908,105 shares of our common stock outstanding as of March 12, 2010, excluding treasury shares. Except as otherwise indicated, the holders listed below have sole voting and investment power with respect to all shares of common stock shown, subject to applicable community property laws. An asterisk represents beneficial ownership of less than 1%.

	Shares of Common Stock	
Name of Beneficial Owner	Number	Percent
Louis Ignarro, Ph.D.(1)	618,916	*
Steven A. Kriegsman(2)	6,305,808	5.7 %
Max Link, Ph.D.(3)	239,519	*
Joseph Rubinfeld, Ph.D.(4)	177,000	*
Marvin R. Selter(5)	522,451	*
Richard L. Wennekamp(6)	170,000	*
Dan Levitt, M.D., Ph.D.(7)	83,334	*
John Y. Caloz (8)	113,197	*
Scott Wieland, Ph.D.(9)	122,502	*
Benjamin S. Levin(10)	608,350	*
All executive officers and directors as a group (eleven persons)(11)	8,981,912	7.9 %

(1) Includes 527,000 shares subject to options or warrants.

(2) Includes 2,284,708 shares subject to options or warrants. Mr. Kriegsman's address is c/o CytRx Corporation, 11726 San Vicente Boulevard, Suite 650, Los Angeles, CA 90049.

(3) Includes 184,543 shares subject to options or warrants.

(4) Includes 177,000 shares subject to options or warrants.

(5) The shares shown are owned, of record, by the Selter Family Trust or Selter IRA Rollover. Includes 165,000 shares subject to options or warrants owned by Mr. Selter.

(6) Includes 165,000 shares subject to options or warrants.

(7) Includes 83,334 shares subject to options or warrants.

(8) Includes 113,197 shares subject to options or warrants.

(9) Includes 122,502 shares subject to options or warrants.

(10) Includes 608,350 shares subject to options or warrants.

(11) Includes 4,451,469 shares subject to options or warrants.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Director Independence

Our board of directors has determined that Messrs. Link, Selter, Ignarro and Wennekamp are "independent" under the current independence standards of both The NASDAQ Capital Market and the SEC, and have no material relationships with us (either directly or as a partner, shareholder or officer of any entity) which could be inconsistent with a finding of their independence as members of our board of directors or as the members of our Audit Committee. In making these determinations, our board of directors has broadly considered all relevant facts and circumstances, recognizing that material relationships can include commercial, banking, consulting, legal, accounting, and familial relationships, among others.

Transactions with Related Persons

General

Our Audit Committee is responsible for reviewing and approving, as appropriate, all transactions with related persons, in accordance with its Charter and NASDAQ Marketplace Rules.

Transactions between us and one or more related persons may present risks or conflicts of interest or the appearance of conflicts of interest. Our Code of Ethics requires all employees, officers and directors to avoid activities or relationships that conflict, or may be perceived to conflict, with our interests or adversely affect our reputation. It is understood, however, that certain relationships or transactions may arise that would be deemed acceptable and appropriate so long as there is full disclosure of the interest of the related parties in the transaction and review and approval by disinterested directors to ensure there is a legitimate business reason for the transaction and that the transaction is fair to us and our stockholders.

As a result, the procedures followed by the Audit Committee to evaluate transactions with related persons require:

- that all related person transactions, all material terms of the transactions, and all the material facts as to the related person's direct or indirect interest in, or relationship to, the related person transaction must be communicated to the Audit Committee; and

- that all related person transactions, and any material amendment or modification to any related person transaction, be reviewed and approved or ratified by the Audit Committee, as required by NASDAQ Marketplace Rules.

Our Audit Committee will evaluate related person transactions based on:

- information provided by members of our board of directors in connection with the required annual evaluation of director independence;

- pertinent responses to the Directors' and Officers' Questionnaires submitted periodically by our officers and directors and provided to the Audit Committee by our management;

- background information on nominees for director provided by the Nominating and Corporate Governance Committee of our board of directors; and

- any other relevant information provided by any of our directors or officers.

In connection with its review and approval or ratification, if appropriate, of any related person transaction, our Audit Committee is to consider whether the transaction will compromise standards included in our Code of Ethics. In the case of any related person transaction involving an outside director or nominee for director, the Audit Committee also is to consider whether the transaction will compromise the director's status as an independent director as prescribed in the NASDAQ Marketplace Rules.

Exemption Clause

Item 404(a)(7)(a) of Securities and Exchange Commission Regulation S-K states that: Disclosure need not be provided if the transaction is one where the rates or charges involved in the transaction are determined by competitive bid, or the transaction involves rendering of services as a common or contract carrier, or public utility, at rates or charges fixed in conformity with law or governmental authority.

Applicable Definitions

For purposes of our Audit Committee's review:

- "related person" has the meaning given to such term in Item 404(a) of Securities and Exchange Commission Regulation S-K ("Item 404(a)"); and

- "related person transaction" means any transaction for which disclosure is required under the terms of Item 404(a) involving the Company and any related persons.

Item 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

BDO Seidman, LLP, or BDO, serves as our independent registered public accounting firm and audited our financial statements for the years ended December 31, 2009, 2008 and 2007.

Audit Fees

The fees for 2009 and 2008 billed to us by BDO for professional services rendered for the audit of our annual consolidated financial statements and internal controls over financial reporting were $383,500 and $350,311, respectively.

Audit-Related Fees

BDO rendered $25,175 of assurance and other related services in 2009, and $152,262 of assurance and other related services in 2008, which included services relating to our shelf registration with the SEC and the Innovive acquisition.

Tax Fees

The aggregate fees billed by BDO for professional services for tax compliance, tax advice and tax planning were $33,260 and $39,000 for 2009 and 2008, respectively.

All Other Fees

No other services were rendered by BDO for 2009 or 2008.

Pre-Approval Policies and Procedures

It is the policy of our Audit Committee that all services to be provided by our independent registered public accounting firm, including audit services and permitted audit-related and non-audit services, must be pre-approved by our Audit Committee. Our Audit Committee pre-approved all services, audit and non-audit, provided to us by BDO for 2009 and 2008.

PART IV

Item 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) The following documents are filed as part of this 10-K:

(1) Financial Statements

Our consolidated financial statements and the related report of the independent registered public accounting firm thereon are set forth on pages F-1 to F-26 of this Annual Report. These consolidated financial statements are as follows:

Consolidated Balance Sheets as of December 31, 2009 and 2008

Consolidated Statements of Operations for the Years Ended December 31, 2009, 2008 and 2007

Consolidated Statements of Stockholders' Equity for the Years Ended December 31, 2009, 2008 and 2007

Consolidated Statements of Cash Flows for the Years Ended December 31, 2009, 2008 and 2007

Notes to Consolidated Financial Statements

Reports of Independent Registered Public Accounting Firms

(2) Financial Statement Schedules

The following financial statement schedule is set forth on page F-26 of this Annual Report.

Schedule II — Valuation and Qualifying Accounts for the years ended December 31, 2009, 2008 and 2007

All other schedules are omitted because they are not required, not applicable, or the information is provided in the financial statements or notes thereto.

(b) Exhibits

See Exhibit Index on page 66 of this Annual Report, which is incorporated herein by reference.

CytRx Corporation
Form 10-K Exhibit Index

Exhibit Number	Description	Footnote
3.1	Amended and Restated Certificate of Incorporation, as amended	(a)
3.2	Restated By-Laws, as amended	(a)
4.1	Shareholder Protection Rights Agreement dated April 16, 1997 between CytRx Corporation and American Stock Transfer &Trust Company as Rights Agent	(b)
4.2	Amendment No. 1 to Shareholder Protection Rights Agreement	(e)
4.3	Amendment No. 2 to Shareholder Protection Rights Agreement	(r)
4.4	Warrant issued on May 10, 2004 to MBN Consulting, LLC	(i)
4.5	Form of Common Stock Purchase Warrant between CytRx Corporation and each of the investors in the October 4, 2004 private placement	(j)
4.6	Form of Common Stock Purchase Warrant between CytRx Corporation and each of the investors in the January 2005 private placement	(k)
4.7	Form of Common Stock Purchase Warrant between CytRx Corporation and each of the investors in the March 2006 private placement	(p)
4.8	Securities Purchase Agreement, dated July 24, 2009, by and among CytRx Corporation and the purchasers listed on the signature pages thereto	(z)
4.9	Form of Common Stock Purchase Warrant to be issued by CytRx Corporation to purchasers under the Securities Purchase Agreement	(z)
10.1*	1994 Stock Option Plan, as amended and restated	(c)
10.2*	1998 Long-Term Incentive Plan	(d)
10.3*	2000 Long-Term Incentive Plan	(e)
10.4*	Amendment No. 1 to 2000 Long-Term Incentive Plan	(g)
10.5*	Amendment No. 2 to 2000 Long-Term Incentive Plan	(g)
10.6*	Amendment No. 3 to 2000 Long-Term Incentive Plan	(h)
10.7*	Amendment No. 4 to 2000 Long-Term Incentive Plan	(h)
10.8*	2008 Stock Incentive Plan	(y)

10.9†	License Agreement dated December 7, 2001 by and between CytRx Corporation and Vical Incorporated	(f)
10.10†	Agreement between CytRx Corporation and Dr. Robert Hunter regarding SynthRx, Inc dated October 20, 2003	(h)
10.11	Office Lease between The Kriegsman Group and Douglas Emmett, dated April 13, 2000	(h)
10.12	Assignment to CytRx Corporation effective July 1, 2003 of Office Lease between The Kriegsman Group and Douglas Emmett, dated April 13, 2000	(h)
10.13	Asset Sale and Purchase Agreement dated October 4, 2004, by and among CytRx Corporation, Biorex Research & Development, RT and BRX Research and Development Company Ltd	(j)
10.14	Sublease dated March 14, 2005 between Innovive Pharmaceuticals, Inc. and Friedman, Billings, Ramsey Group, Inc.	(l)
10.15*	Amended and Restated Employment Agreement dated May 17, 2005 between CytRx Corporation and Steven A. Kriegsman	(m)
10.16	First Amendment to Office Lease dated October 14, 2005, by and between CytRx Corporation and Douglas Emmett 1993, LLC	(n)
10.17†	License Agreement dated December 28, 2005 between Innovive Pharmaceuticals, Inc. and Nippon Shinyaku Co., Ltd.	(l)
10.18†	License Agreement dated April 17, 2006 between Innovive Pharmaceuticals, Inc. and KTB Tumorforschungs GmbH	(o)
10.19	Royalty Agreement dated August 28, 2006 between CytRx Corporation and Kenneth Council, as Trustee of the ALS Charitable Remainder Trust	(q)
10.20†	License Agreement dated December 6, 2006 between Innovive Pharmaceuticals, Inc. and TMRC Co., Ltd.	(s)
10.21	Contribution Agreement, dated as of January 8, 2007, between CytRx Corporation and RXi Pharmaceuticals Corporation	(t)
10.22	Voting agreement, dated as of January 10, 2007, between CytRx Corporation and the University of Massachusetts	(t)
10.23	Stockholders agreement, dated February 23, 2007, among CytRx Corporation, RXi Pharmaceuticals Corporation, Craig C. Mello, Ph.D., Tariq Rana, Ph.D., Gregory J. Hannon, Ph.D., and Michael P. Czech, Ph.D	(t)
10.24	Form of Purchase Agreement, dated as of April 17, 2007, by and between CytRx Corporation and each of the selling stockholders named therein	(u)
10.25	Contribution Agreement, dated as of April 30, 2007, between CytRx Corporation and RXi Pharmaceuticals Corporation	(t)

10.26	Lease dated July 20, 2007, between CytRx Corporation and BMR-3030 Bunker Hill Street LLC	(v)
10.27	Agreement and Plan of Merger, dated as of June 6, 2008, among CytRx Corporation, CytRx Merger Subsidiary, Inc., Innovive Pharmaceuticals, Inc., and Steven Kelly	(w)
10.28	Loan and Security Agreement, dated as of June 6, 2008, between CytRx Corporation and Innovive Pharmaceuticals, Inc.	(w)
10.29	Second Amendment to Office Lease dated June 30, 2008, by and between CytRx Corporation and Douglas Emmett 1993, LLC	(y)
10.30	Amendment to Contribution Agreement, dated July 28, 2008, between CytRx Corporation and RXi Pharmaceuticals Corporation	(x)
10.31	Amendment to Stockholders Agreement, dated July 28, 2008, among CytRx Corporation, RXi Pharmaceuticals Corporation, and Michael P. Czech, PhD., Gregory J. Hannon, Ph.D., Craig C. Mello, PhD., and Tariq M. Rana, Ph.D.	(x)
10.32	Sub-Sublease dated December 4, 2008, by and between CytRx Oncology Corporation and Red Pine Advisors LLC	(y)
10.33	Investment Banking Agreement, dated January 29, 2009, by and between CytRx Corporation and Legend Securities, Inc.	(y)
10.34*	Employment Agreement dated October 12, 2009 between CytRx Corporation and Daniel Levitt, M.D., Ph.D.	(aa)
10.35*	Employment Agreement dated November 30, 2009, between CytRx Corporation and Scott Geyer	
10.36	Third Amendment to Office Lease dated December 1, 2009, by and between CytRx Corporation and Douglas Emmett 1993, LLC	(bb)
10.37*	Employment Agreement dated January 1, 2010, between CytRx Corporation and Benjamin S. Levin	
10.38*	Employment Agreement dated January 1, 2010, between CytRx Corporation and Scott Wieland	
10.39*	Employment Agreement dated January 1, 2010, between CytRx Corporation and John Y. Caloz	
23.1	Consent of BDO Seidman, LLP	
31.1	Certification of Chief Executive Officer Pursuant to 15 U.S.C. Section 7241, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	
31.2	Certification of Chief Financial Officer Pursuant to 15 U.S.C. Section 7241, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	

32.1	Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2	Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

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* Indicates a management contract or compensatory plan or arrangement.

† Confidential treatment has been requested or granted for certain portions which have been blanked out in the copy of the exhibit filed with the Securities and Exchange Commission. The omitted information has been filed separately with the Securities and Exchange Commission.

(a) Incorporated by reference to the Registrant's Form 10-K filed on April 1, 2008

(b) Incorporated by reference to the Registrant's 8-K filed on April 17, 1997

(c) Incorporated by reference to the Registrant's 10-Q filed on August 14, 1997

(d) Incorporated by reference to the Registrant's Proxy Statement filed on April 30, 1998

(e) Incorporated by reference to the Registrant's Form 10-K filed on March 27, 2001

(f) Incorporated by reference to the Registrant's Form 8-K filed on December 21, 2001

(g) Incorporated by reference to the Registrant's Proxy Statement filed June 11, 2002

(h) Incorporated by reference to the Registrant's 10-K filed on May 14, 2004

(i) Incorporated by reference to the Registrant's 10-Q filed on August 16, 2004

(j) Incorporated by reference to the Registrant's 8-K filed on October 5, 2004

(k) Incorporated by reference to the Registrant's 8-K filed on January 21, 2005

(l) Incorporated by reference to the Innovive Pharmaceuticals Form 10 filed on April 20, 2006

(m) Incorporated by reference to the Registrant's 10-Q filed on August 15, 2005

(n) Incorporated by reference to the Registrant's 8-K filed on October 20, 2005

(o) Incorporated by reference to the Innovive Pharmaceuticals 10-Q filed on November 14, 2006

(p) Incorporated by reference to the Registrant's 8-K filed on March 3, 2006

(q) Incorporated by reference to the Registrant's 10-Q filed on November 13, 2006

(r) Incorporated by reference to the Registrant's 10-K filed on April 2, 2007

(s) Incorporated by reference to the Innovive Pharmaceuticals 10-K filed on March 21, 2007

(t) Incorporated by reference to the Registrant's 10-Q filed on May 10, 2007

(u) Incorporated by reference to the Registrant's 8-K filed on April 18, 2007

(v) Incorporated by reference to the Registrant's 10-Q filed on August 9, 2007

(w) Incorporated by reference to the Registrant's 8-K filed on June 9, 2008

(x) Incorporated by reference to the Registrant's 10-Q filed on August 11, 2008

(y) Incorporated by reference to the Registrant's 10-K filed on March 13, 2009

(z) Incorporated by reference to the Registrant's 8-K filed on July 27, 2009

(aa) Incorporated by reference to the Registrant's 10-Q filed on November 9, 2009

(bb Incorporated by reference to the Registrant's 8-K filed on December 4, 2009

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

CYTRX CORPORATION

Date: March 12, 2010	By:	/s/ STEVEN A. KRIEGSMAN Steven A. Kriegsman President and Chief Executive Officer

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AND FINANCIAL STATEMENT SCHEDULE

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CYTRX CORPORATION
CONSOLIDATED BALANCE SHEETS

	December 31, 2009	2008
ASSETS		
Current assets:		
Cash and cash equivalents	$9,893,590	$25,041,772
Marketable securities	22,750,000	—
Receivable	139,680	127,280
Income taxes recoverable	519,158	215,623
Interest receivable	130,779	—
Assets held for sale	73,634	—
Prepaid expenses and other current assets	1,088,074	486,609
Total current assets	34,594,915	25,871,284
Equipment and furnishings, net	174,959	1,835,052
Molecular library, net	—	103,882
Goodwill	183,780	183,780
Other assets	323,235	330,032
Total assets	$35,276,889	$28,324,030
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$1,066,055	$668,422
Accrued expenses and other current liabilities	2,492,450	2,556,904
Warrant liability	3,370,701	—
Deferred revenue, current portion	—	1,817,600
Total current liabilities	6,929,206	5,042,926
Deferred revenue, non-current portion	—	7,582,797
Total liabilities	6,929,206	12,625,723
Commitment and contingencies		
Stockholders' equity:		
Preferred Stock, $.01 par value, 5,000,000 shares authorized, including 15,000 shares of Series A Junior Participating Preferred Stock; no shares issued and outstanding	—	—
Common stock, $.001 par value, 175,000,000 shares authorized; 109,538,821 and 93,978,448 shares issued and outstanding at December 31, 2009 and 2008, respectively	109,539	93,978
Additional paid-in capital	227,441,591	210,007,468
Treasury stock, at cost (633,816 shares held, at December 31, 2009 and 2008, respectively)	(2,279,238)	(2,279,238)
Accumulated deficit	(196,924,209)	(192,123,901)
Total stockholders' equity	28,347,683	15,698,307
Total liabilities and stockholders' equity	$35,276,889	$28,324,030

The accompanying notes are an integral part of these consolidated financial statements.

CYTRX CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS

	Years Ended December 31,		
	2009	2008	2007
Revenue:			
Service revenue	$9,400,397	$6,166,150	$7,241,920
Licensing revenue	100,000	100,000	101,000
Grant revenue	—	—	116,118
	9,500,397	6,266,150	7,459,038
Expenses:			
Research and development	7,541,998	10,465,591	18,823,802
General and administrative	9,127,845	10,932,522	14,822,142
In-process research and development	—	8,012,154	—
Depreciation and amortization	475,316	624,980	272,229
	17,145,159	30,035,247	33,918,173
Loss before other income	(7,644,762)	(23,769,097)	(26,459,135)
Other income:			
Interest and dividend income	349,490	1,203,629	2,663,542
Other income, net	93,950	219,489	1,496,979
Gain on warrant derivative liability	656,905	—	—
Gain on sale of affiliate's RXi Pharmaceutical shares	1,224,951	—	—
Equity in loss of affiliate – RXi Pharmaceuticals	—	(3,915,514)	—
Net loss before provision for income taxes	(5,319,466)	(26,261,493)	(22,298,614)
Provision for income taxes	519,158	(873,003)	(40,000)
Net loss	(4,800,308)	(27,134,496)	(22,338,614)
Deemed dividend for anti-dilution adjustments made to outstanding common stock warrants	—	(756,954)	—
Net loss	(4,800,308)	(27,891,450)	(22,338,614)
Add: Loss of noncontrolling interest	—	88,375	448,671
Net loss attributable to CytRx Corporation	$(4,800,308)	$(27,803,075)	$(21,889,943)
Basic and diluted loss per share	$(0.05)	$(0.30)	$(0.26)
Basic and diluted weighted average shares outstanding	99,978,124	91,383,934	84,006,728

The accompanying notes are an integral part of these consolidated financial statements.

CYTRX CORPORATION
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Common Stock Shares Issued	Common Stock Amount	Additional Paid-In Capital	Accumulated Deficit	Treasury Stock	Noncontrolling Interest	Total
Balance at December 31, 2006	70,788,586	$70,789	$146,961,657	$(140,139,915)	$(2,279,238)	$537,046	5,150,339
Common stock and warrants issued in connection with private placements	8,615,000	8,615	34,239,442	—	—		34,248,057
Issuance of stock options/warrants for compensation, services and licenses			2,402,035	—	—		2,402,035
Options and warrants exercised	10,994,281	10,994	18,778,180	—	—		18,789,174
Issuance of stock options by subsidiary	—	—	1,524,377	—	—		1,524,377
Net loss	—	—	—	(21,889,943)	—	(448,671)	(22,338,614)
Balance at December 31, 2007	90,397,867	$90,398	$203,905,691	$(161,492,812)	$(2,279,238)	$(448,671)	$40,312,414
Issuance of stock options/warrants for compensation, services and licenses	—	—	2,029,209	—	—		2,029,209
Options and warrants exercised	1,006,402	1,006	975,782	—	—		976,788
Common stock issued in connection with the acquisition of Innovive	2,574,179	2,574	2,339,832	—	—		2,342,406
Deemed dividend for anti-dilution		—	756,954	(756,954)	—		—

adjustment							
Dividend of RXi stock	—	—	—	(2,828,014)	—		(2,828,014)
Net loss	—	—	—	(27,046,121)	—	(88,375)	(27,134,496)
Balance at December 31, 2008	93,978,448	$93,978	$210,007,468	$(192,123,901)	$(2,279,238)	$—	$15,698,307
Common stock and warrants issued in connection with private placements	15,252,040	15,253	14,230,710	—	—		14,245,963
Issuance of stock options/warrants for compensation and services	—	—	2, 867,638	—	—		2,867,638
Common stock issued for services	50,000	50	42,950	—	—		43,000
Options and warrants exercised	258,333	258	292,825	—	—		293,083
Net loss	—	—	—	(4,800,308)	—	—	(5,319,466)
Balance at December 31, 2009	109,538,821	$109,539	$227,441,591	$(196,924,209)	$(2,279,238)	$—	$27,828,525

The accompanying notes are an integral part of these consolidated financial statements.

CYTRX CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years Ended December 31,		
	2009	2008	2007
Cash flows from operating activities:			
Net loss attributable to CytRx Corporation	$ (4,800,308)	$ (27,046,121)	$ (21,889,943)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:			
Depreciation and amortization	475,316	624,980	272,229
Retirement of fixed assets	103,241	262	—
Interest receivable on marketable securities	—	(48,452)	(172,055)
Loss of noncontrolling interest	—	(88,375)	(448,671)
Fair value adjustment of warrant liability	(656,905)	—	—
Impairment loss on fixed assets	1,187,305	—	—
Equity in loss of affiliate	—	3,915,515	—
Non-cash gain on transfer of RXi common stock	—	(226,579)	—
Gain on sale of affiliate's shares	(1,224,951)	—	—
Non-cash expense on the acquisition of Innovive's in-process research & development	—	8,012,154	—
Stock option and warrant expense	2,734,247	2,103,752	3,511,541
Common stock issued for services	43,000	244,860	3,089,639
Changes in assets and liabilities:			
Accounts receivable	(12,400)	238,131	4,713
Interest receivable	(130,779)	—	—
Income taxes recoverable	(303,535)	(215,623)	—
Prepaid expenses and other current assets	(461,277)	478,965	(1,214,836)
Accounts payable	397,633	(1,181,116)	757,086
Deferred revenue	(9,400,397)	(6,166,151)	(7,241,919)
Accrued expenses and other current liabilities	(64,454)	(56,146)	978,388
Total adjustments	(7,313,956)	7,636,177	(463,885)
Net cash used in operating activities	(12,114,264)	(19,409,944)	(22,353,828)
Cash flows from investing activities:			
Proceeds (Purchase) from sale of marketable securities	(22,750,000)	10,000,000	(9,779,493)
Proceeds from sale of fixed assets	119,929	—	—
Deconsolidation of subsidiary	—	(10,359,278)	—
Proceeds from sale of unconsolidated sub shares	1,224,951	—	—
Cash outlay in the acquisition of Innovive, relating to its accounts payable	—	(5,669,749)	—
Purchases of equipment and furnishings	(195,449)	(994,326)	(1,269,313)
Net cash used in investing activities	(21,600,569)	(7,023,353)	(11,048,806)
Cash flows from financing activities:			
Net proceeds from exercise of stock options and warrants	293,083	976,808	18,789,173
Common stock issued in accordance with financing	18,273,568	—	—
Net proceeds from issuances of common stock	—	—	34,248,058

Capital contributions from minority interest	—	—	482,271
Net cash provided by financing activities	18,566,651	976,808	53,519,502
Net increase (decrease) in cash and cash equivalents	(15,148,182)	(25,456,489)	20,116,868
Cash and cash equivalents at beginning of year	25,041,772	50,498,261	30,381,393
Cash and cash equivalents at end of year	$ 9,893,590	$ 25,041,772	$ 50,498,261
Supplemental disclosure of cash flow information:			
Cash paid during the years for income taxes	$ —	$ 1,093,764	$ 183,461
Supplemental disclosures of non-cash investing and financing activities:			
Acquisition of property and equipment through accrued liabilities	$ —	$ 130,955	$ 233,974
Warrants issued in connection with financing	$ 4,027,606	$ —	$ —
Warrants issued for prepaid services	$ 133,391	$ —	$ —

The accompanying notes are an integral part of these consolidated financial statements. See supplemental information on the following page.

Supplemental schedule of non-cash investing and financing activities:

CytRx purchased all of the common stock of Innovive Pharmaceuticals, Inc. in a transaction that for accounting purposes is considered an asset acquisition. See Note 20 below. The fair values of Innovive's assets and liabilities at September 19, 2008, in millions of dollars, are presented below:

In-process research and development	$8.0
Leasehold interests	0.1
Prepaid expenses	0.3
Accounts payable	(6.1)
Net assets acquired through issuance of common stock	$2.3

As a result of the March 11, 2008 distribution by CytRx Corporation (the "Company") to its stockholders of approximately 36% of the outstanding shares of RXi Pharmaceuticals Corporation, the Company deconsolidated that previously majority-owned subsidiary. As part of the transaction, the Company deconsolidated $3.7 million of total assets and $4.6 million of total liabilities.

In connection with applicable antidilution adjustments to the price of certain outstanding warrants in March 2008, the Company recorded a deemed dividend of approximately $756,954 in the current year. The deemed dividend was recorded as a charge to accumulated deficit and a corresponding credit to additional paid-in capital.

During 2007, the Company allocated $289,254 of additional paid in capital arising from subsidiary common stock options issued to minority interest.

CYTRX CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Nature of Business

CytRx Corporation ("CytRx" or the "Company") is a biopharmaceutical research and development company engaged in the development of high-value human therapeutics, specializing in oncology. CytRx's drug development pipeline includes clinical development of three product candidates for cancer indications, including three planned Phase 2 clinical trials for INNO-206 as a treatment for pancreatic cancer, gastric (stomach) cancer and soft tissue sarcomas, two Phase 2 proof-of-concept clinical trials with bafetinib in patients with high-risk B-cell chronic lymphocytic leukemia, or B-CLL, and patients with glioblastoma multiforme, and a registration study of tamibarotene for the treatment of acute promyelocytic leukemia, or APL. In addition to its core oncology programs, CytRx is developing two drug candidates based on its molecular chaperone regulation technology, which aim to repair or degrade mis-folded proteins associated with disease. Apart from its drug development programs, CytRx currently maintain a 36% equity interest in its former subsidiary, RXi. The Company's current business strategy for its molecular chaperone regulation technology is to seek one or more strategic partnerships, or a possible spin-out transaction.

At December 31, 2009, the Company had cash and cash equivalents of approximately $9.9 million, marketable securities of $22.8 million and held 5,768,881 shares of restricted common stock of RXi Pharmaceuticals Corporation, or RXi, with a market value of $26.4 million based upon the closing price of the RXi common stock on that date. On July 27, 2009, the Company raised approximately $18.3 million, net of fees and expenses, in a registered direct offering, and on September 23, 2009, the Company raised approximately $1.2 million, net of fees, from the sale of 500,000 shares of its common stock of RXi. Management believes that the Company's current cash on hand, together with its marketable securities and proceeds from possible future sale of RXi common stock, will be sufficient to fund its operations for the foreseeable future. The estimate is based, in part, upon the Company's currently projected expenditures for 2010 of approximately $18.0 million (unaudited), which includes approximately $3.2 million (unaudited) for its clinical programs for INNO-206, approximately $1.6 million (unaudited) for its clinical programs for bafetinib, approximately $2.5 million (unaudited) for its clinical program for tamibarotene, approximately $1.4 million (unaudited) for its activities for arimoclomol, approximately $2.2 million (unaudited) for general operation of its clinical programs, and approximately $7.1 million (unaudited) for other general and administrative expenses. These projected expenditures are also based upon numerous other assumptions and subject to many uncertainties, and actual expenditures may be significantly different from these projections. The Company will be required to obtain additional funding in order to execute its long-term business plans, although it does not currently have commitments from any third parties to provide it with capital. The fair value of common stock investment in RXi is subject to market fluctuations that could impact the amount of cash the Company generates from the sale of RXi shares in the future. The Company cannot assure that additional funding will be available on favorable terms, or at all. If the Company fails to obtain additional funding when needed, it may not be able to execute its business plans and its business may suffer, which would have a material adverse effect on its financial position, results of operations and cash flows.

2. Summary of Significant Accounting Policies

Basis of Presentation and Principles of Consolidation — Through February 2008, the Company owned a majority of the outstanding shares of common stock of RXi, which was founded in April 2006 by the Company and four researchers in the field of RNAi, including Dr. Craig Mello, recipient of the 2006 Nobel Prize for Medicine for his co-discovery of RNAi. While RXi was majority-owned, the Company's consolidated financial statements reflected 100% of the assets and liabilities and results of operations of RXi, with the interests of the minority shareholders of RXi recorded as "noncontrolling interests." In March 2008, the Company distributed to its stockholders approximately 36% of RXi's outstanding shares, which reduced CytRx's ownership to less than 50% of RXi. As a result of the reduced ownership,

CytRx began to account for its investment in RXi using the equity method, under which CytRx records only its pro-rata share of the financial results of RXi as “equity in loss of unconsolidated subsidiary” on the consolidated statements of operations (see Note 14 below). Because a portion of RXi’s financial results for 2008 and all of RXi’s financial results for 2007 were not recorded by CytRx under the equity method, the Company’s results of operations for the year ended December 31, 2009 are not directly comparable to results of operations for the same periods in prior years.

Revenue Recognition — Revenue consists of license fees from strategic alliances with pharmaceutical companies as well as service and grant revenues. Service revenue consists of contract research and laboratory consulting. Grant revenues consist of government and private grants.

Monies received for license fees are deferred and recognized ratably over the performance period in accordance with Staff Accounting Bulletin ("SAB") No. 104, Revenue Recognition. Milestone payments will be recognized upon achievement of the milestone as long as the milestone is deemed substantive and we have no other performance obligations related to the milestone and collectability is reasonably assured, which is generally upon receipt, or recognized upon termination of the agreement and all related obligations. Deferred revenue represents amounts received prior to revenue recognition.

Revenues from contract research, government grants, and consulting fees are recognized over the respective contract periods as the services are performed, provided there is persuasive evidence or an arrangement, the fee is fixed or determinable and collection of the related receivable is reasonably assured. Once all conditions of the grant are met and no contingencies remain outstanding, the revenue is recognized as grant fee revenue and an earned but unbilled revenue receivable is recorded.

In August 2006, the Company received approximately $24.3 million in proceeds from the privately-funded ALS Charitable Remainder Trust ("ALSCRT") in exchange for the commitment to continue research and development of arimoclomol and other potential treatments for ALS and a one percent royalty in the worldwide sales of arimoclomol. Under the arrangement, we retain the rights to any products or intellectual property funded by the arrangement and the proceeds of the transaction are non-refundable. The ALSCRT has no obligation to provide any further funding to the Company. The Company has concluded that due to the research and development components of the transaction that it is properly accounted for under ASC 730-20 (previously Statement of Financial Accounting Standards No. 68, Research and Development Arrangements). Accordingly, the Company recorded the value received under the arrangement as deferred service revenue and recognized service revenue using the proportional performance method of revenue recognition, meaning that service revenue was recognized on a dollar-for-dollar basis for each dollar of expense incurred for the research and development of arimoclomol and other potential ALS treatments. CytRx believes that this method best approximates the efforts expended related to the services provided. The Company adjusted its estimates of expense incurred for this research and development on a quarterly basis.

The amount of "deferred revenue, current portion" is the amount of deferred revenue that is expected to be recognized in the next twelve months and is subject to fluctuation based upon management's estimates. Management's estimates include an evaluation of what pre-clinical and clinical trials are necessary, the timing of when trials will be performed and the estimated clinical trial expenses. These estimates are subject to changes and could have a significant effect on the amount and timing of when the deferred revenues are recognized.

Pursuant to an amendment signed between the Company and the beneficiary of the ALSCRT on August 6, 2009, the Company was released from all restrictions on the use of any proceeds previously received by us in connection with the arrangement. As a result, the Company recognized $6.7 million as service revenue in the third quarter of 2009, which represented the remaining deferred revenue and previously un-recognized portion of the value received. For the years ended December 31, 2009 and 2008, the Company recognized approximately $9.4 million and $6.2 million, respectively, of service revenue related to this transaction.

Other Income — The Company realized a net gain of $0.1 million in 2009 on the sub-lease of its New York city rental property inherited on the acquisition of Innovive. In March 2008, the Company recognized a non-cash gain of $0.2 million on the transfer of some RXi common stock to certain employees. In June 2007, the Company recognized $1.5 million of income arising from a fee received pursuant to a change-in-control provision included in the purchase agreement for its 1998 sale of its animal pharmaceutical unit.

Cash Equivalents — The Company considers all highly liquid debt instruments with an original maturity of 90 days or less to be cash equivalents. Cash equivalents consist primarily of amounts invested in money market accounts.

Marketable securities — Investment securities held by the Company are classified as available for sale.

Fair Value of Financial Instruments — The carrying amounts reported in the balance sheet for cash and cash equivalents and marketable securities approximate their fair values.

Equipment and Furnishings — Equipment and furnishings are stated at cost and depreciated using the straight-line method based on the estimated useful lives (generally three to five years for equipment and furniture) of the related assets. Whenever there is a triggering event that might suggest an impairment, management evaluates the realizability of recorded long-lived assets to determine whether their carrying values have been impaired. The Company records impairment losses on long-lived assets used in operations when events and circumstances indicate that the assets might be impaired and the non-discounted cash flows estimated to be generated by those assets are less than the carrying amount of those assets. Any impairment loss is measured by comparing the fair value of the asset to its carrying amount.

Fair Value Measurements — The Company adopted new guidance which is now part of ASC 820-10 (formerly Financial Accounting Standards Board Statement of Financial Accounting Standards No. 157), Fair Value Measurements ("FAS 157"), effective January 1, 2008. SFAS 157 does not require any new fair value measurements; instead it defines fair value, establishes a framework for measuring fair value in accordance with existing generally accepted accounting principles and expands disclosure about fair value measurements. The adoption of SFAS 157 for the Company's financial assets and liabilities did not have an impact on its financial position or operating results. Beginning January 1, 2008, assets and liabilities recorded at fair value in consolidated balance sheets are categorized based upon the level of judgment associated with the inputs used to measure the fair value. Level inputs, as defined by SFAS 157, are as follows:

- Level 1 – quoted prices in active markets for identical assets or liabilities.
- Level 2 – other significant observable inputs for the assets or liabilities through corroboration with market data at the measurement date.
- Level 3 – significant unobservable inputs that reflect management's best estimate of what market participants would use to price the assets or liabilities at the measurement date.

The following table summarizes fair value measurements by level at December 31, 2009 for assets and liabilities measured
at fair value on a recurring basis:

(In thousands)	Level I	Level II	Level III	Total
Cash and cash equivalents	$ 9,894	$ —	$ —	$ 9,894
Marketable securities	22,750	—	—	22,750
Warrant Liability	—	3,371	—	3,371

The following table summarizes fair value measurements by level at December 31, 2008 for assets and liabilities measured
at fair value on a recurring basis:

(In thousands)	Level I	Level II	Level III	Total
Cash and cash equivalents	$ 25,042	$ —	$ —	$ 25,042

Liabilities measured at market value on a recurring basis include warrant liabilities resulting from recent debt and equity financing. In accordance with ASC 815-40 (formerly EITF 00-19, Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company's Own Stock), the warrant liabilities are being marked to market each quarter-end until they are completely settled. The warrants are valued using the Black-Scholes method, using assumptions consistent with the Company's application of ASC 505-50. See Warrant Liabilities below.

The Company considers carrying amounts of accounts receivable, accounts payable and accrued expenses to approximate fair value due to the short-term nature of these financial instruments.

The Company's non-financial assets, such as assets held for sale are measured at fair value when there is an indicator of impairment and recorded at fair value only when an impairment charge is recognized. The following table summarizes the Company's financial assets measured at fair value on a nonrecurring basis as of December 31, 2009:

(in thousands)	Carrying Amount as of December 31, 2009	Fair Value Measurements as of December 31, 2009 Level 1	Level 2	Level 3	Total Losses
Long-lived assets held for sale:					
Plant and equipment, net	$ 74	$ —	$ 74	$ —	$ 1,187
Asssets held for sale	$ 74	$ —	$ 74	$ —	$ 1,187

Impairment of Long-Lived Assets — The Company reviews long-lived assets, including finite lived intangible assets, for impairment on an annual basis, as of December 31, or on an interim basis if an event occurs that might reduce the fair value of such assets below their carrying values. An impairment loss would be recognized based on the difference between the carrying value of the asset and its estimated fair value, which would be determined based on either discounted future cash flows or other appropriate fair value methods. If the Company's estimates used in the determination of either discounted future cash flows or other appropriate fair value methods are not accurate as compared to actual future results, the Company may be required to record an impairment charge. The fixed assets, from the Company's San Diego laboratory and its molecular library, available for sale were re-allocated from Equipment and Furnishings to Assets Held for Sale and were written down to their estimated net realizable value as of September 30, 2009 (see Note7 below).

Patents and Patent Application Costs — Although the Company believes that its patents and underlying technology have continuing value, the amount of future benefits to be derived from the patents is uncertain. Patent costs are therefore expensed as incurred.

Net Income (Loss) Per Share — Basic net income (loss) per common share has computed using the weighted-average number of common shares outstanding. Diluted net income (loss) per common share computed using the weighted-average number of common share and common share equivalents outstanding. Common share equivalents which could potentially dilute basic earnings per share in the future, and which were excluded from the computation of diluted loss per share, totaled approximately 24.4 million shares, 15.2 million shares and 17.1 million shares at December 31, 2009, 2008 and 2007, respectively.

As a result of the March 11, 2008 distribution by CytRx to its stockholders of approximately 36% of the outstanding shares of RXi Pharmaceuticals Corporation, the Company recorded a deemed dividend of approximately $757,000. The deemed dividend was reflected as an adjustment to net loss for the first quarter of 2008 to arrive at net loss applicable to common stockholders on the consolidated statement of operations and for purposes of calculating basic and diluted earnings per shares.

Warrant Liabilities — Liabilities measured at market value on a recurring basis include warrant liabilities resulting from our recent equity financing. In accordance with ASC 815-40 (formerly EITF (Emerging Issues Task Force) 00-19, Accounting for Derivative Financial Instruments Indexed to and Potentially Settled in a Company's Own Stock, the warrant liabilities are being marked to market each quarter-end until they are completely settled. The warrants are valued using the Black-Scholes method. The gain or loss resulting from the marked to market calculation is shown on the Consolidated Statements of Operations as Gain on warrant derivative liability.

Shares Reserved for Future Issuance — As of December 31, 2009, the Company has reserved approximately 9.1 million of its authorized but unissued shares of common stock for future issuance pursuant to its employee stock option plans issued to consultants and investors.

Stock-based Compensation — The Company's stock-based employee compensation plans are described in Note 15. The Company has adopted the provisions of ASC 718 (previously SFAS No. 123(R), Share-Based Payment ("SFAS 123(R)")), which requires the measurement and recognition of compensation expense for all stock-based awards made to employees and non-employees.

For stock options and stock warrants paid in consideration of services rendered by non-employees, the Company recognizes compensation expense in accordance with the requirements of ASC 718 (previously SFAS No. 123(R)), ASC 505-50 (previously Emerging Issues Task Force Issue No. 96-18 ("EITF 96-18")), Accounting for Equity Instruments that are Issued to other than Employees for Acquiring, or in Conjunction with Selling Goods or Services and ASC 505 (previously EITF 00-18, Accounting Recognition for Certain Transactions involving Equity Instruments Granted to Other Than Employees), as amended.

Non-employee option grants that do not vest immediately upon grant are recorded as an expense over the vesting period. At the end of each financial reporting period prior to performance, the value of these options, as calculated using the Black-Scholes option-pricing model, is determined, and compensation expense recognized or recovered during the period is adjusted accordingly. Since the fair market value of options granted to non-employees is subject to change in the future, the amount of the future compensation expense is subject to adjustment until the common stock options or warrants are fully vested.

Research and Development Expenses — Research and development expenses consist of costs incurred for direct and overhead-related research expenses and are expensed as incurred. Costs to acquire technologies, including licenses, that are utilized in research and development and that have no alternative future use are expensed when incurred. Technology developed for use in its products is expensed as incurred until technological feasibility has been established.

Clinical Trial Expenses — Clinical trial expenses, which are included in research and development expenses, include obligations resulting from the Company's contracts with various clinical research organizations in connection with conducting clinical trials for its product candidates. The Company recognize expenses for these activities based on a variety of factors, including actual and estimated labor hours, clinical site initiation activities, patient enrollment rates, estimates of external costs and other activity-based factors. The Company believe that this method best approximates the efforts expended on a clinical trial with the expenses it records. The Company adjusts its rate of clinical expense recognition if actual results differ from its estimates. If its estimates are incorrect, clinical trial expenses recorded in any particular period could vary.

Income Taxes — Income taxes are accounted for using an asset and liability approach that requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in the Company's financial statements or tax returns. A valuation allowance is established to reduce deferred tax assets if all, or some portion, of such assets will more than likely not be realized. Effective January 1, 2007, we adopted the provisions of ASC 740-10 (formerly FIN 48), which contains a two-step process for recognizing and measuring uncertain tax positions. The first step is to determine whether or not a tax benefit should be recognized. A tax benefit will be recognized if the weight of available evidence indicates that the tax position is more likely than not to be sustained upon examination by the relevant tax authorities. The recognition and measurement of benefits related to our tax positions requires significant judgment, as uncertainties often exist with respect to new laws, new interpretations of existing laws, and rulings by taxing authorities. Differences between actual results and our assumptions or changes in our assumptions in future periods are recorded in the period they become known.

Concentrations of Risks — Financial instruments that potentially subject the Company to significant concentrations of credit risk consist principally of cash, cash equivalents and marketable securities. The Company maintains cash and cash equivalents in large well-capitalized financial institutions and the Company's investment policy disallows investment in any debt securities rated less than "investment-grade" by national ratings services. The Company has not experienced any losses on its deposits of cash or cash equivalent or its marketable securities. The Company also has a 36% investment in RXi, the shares of which can significantly fluctuate. The sale of these common shares represents a future source of cash and any decline in the share price can impact the Company.

Use of Estimates — The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Significant estimates include the accrual for research and development expenses, the basis for the classification of current deferred revenue, estimated income taxes and the estimate of expense arising from the common stock options granted to employees and non-employees. Actual results could materially differ from those estimates.

Other comprehensive income/(loss) — The Company follows the provisions of ASC 220, (formerly SFAS No. 130, Reporting Comprehensive Income), which requires separate representation of certain transactions, which are recorded directly as components of shareholders' equity. The Company has no components of other comprehensive income (loss) and accordingly comprehensive loss is the same as net loss reported.

3. Recent Accounting Pronouncements

In December 2007, the FASB issued guidance which is now part of ASC 810-10, Noncontrolling Interests in Consolidated Financial Statements, an Amendment of Accounting Research Bulletin No. 51 " (formerly Statement of Financial Accounting Standards (SFAS) 160, Noncontrolling Interests in Consolidated Financial Statements—an amendment of ARB No. 51). This guidance establishes accounting and reporting standards for ownership interests in subsidiaries held by parties other than the parent, changes in a parent's ownership of a noncontrolling interest, calculation and disclosure of the consolidated net income attributable to the parent and the noncontrolling interest, changes in a parent's ownership interest while the parent retains its controlling financial interest and fair value measurement of any retained noncontrolling equity investment. The new guidance is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years. Early adoption is prohibited. The Company adopted this guidance on January 1, 2009, the beginning of its 2009 fiscal year, which resulted in certain reclassifications related to the noncontrolling interest in the consolidated financial statements.

In March 2008, the FASB issued guidance ASC 815-10 (formerly Statement of Financial Accounting Standards No. 161, Disclosures about Derivative Instruments and Hedging Activities ("SFAS No. 161"). The new standard amends Statement of Financial Accounting Standards No. 133, Accounting for Derivative Instruments and Hedging Activities ("SFAS 133"), and seeks to enhance disclosure about how and why a company uses derivatives; how derivative instruments are accounted for under SFAS 133 (and the interpretations of that standard); and how derivatives affect a company's financial position, financial performance and cash flows. SFAS 161 will be effective for financial statements issued for fiscal years and interim periods beginning after November 15, 2008. Early application of the standard is encouraged, as well as comparative disclosures for earlier periods at initial adoption. The adoption of ASC 815-10 did not have a material impact on the Company's consolidated financial statements.

In April 2008, the FASB issued revised guidance on determining the useful life of intangible assets. The revised guidance, which is now part of ASC 350-30 General Intangibles Other than Goodwill (previously Staff Position No. FAS 142-3, Determination of the Useful Life of Intangible Assets), amends the factors that should be considered in developing renewal or extension assumptions used to determine the useful life of a recognized intangible asset. The Position is effective for fiscal years beginning after December 15, 2008 and applies prospectively to intangible assets acquired after the effective date. Early adoption is not permitted. The adoption of SFAS No. ASC 350-30 did not have a material impact on the Company's consolidated financial statements.

In May 2008, the FASB issued revised guidance on Convertible Debt Instruments. The revised guidance which is now part of ASC 470-20 (formerly Staff Position No. Accounting Principles Board 14-1, Accounting for Convertible Debt Instruments That May Be Settled in Cash upon Conversion (Including Partial Cash Settlement) ("FSP No. APB 14-1")). ASC 470-20 requires that the liability and equity components of convertible debt instruments that may be settled in cash upon conversion (including partial cash settlement) be separately accounted for in a manner that reflects an issuer's nonconvertible debt borrowing rate. ASC 470-20 is effective for us as of January 1, 2009. The adoption of ASCO 470-20 did not have an impact on the Company's consolidated financial statements.

In June 2008, the FASB ratified guidance which is now part of ASC 815-40, Contracts in Entity's Own Equity (formerly EITF (Emerging Issues Task Force) 07-05), Determining Whether an Instrument (or Embedded Feature) Is Indexed to an Entity's Own Stock. The objective of this issue is to provide guidance for determining whether an equity-linked financial instrument (or embedded feature) is indexed to an entity's own stock. This issue applies to any freestanding financial instrument or embedded feature that has all the characteristics of a derivative instrument or an instrument which may be potentially settled in an entity's own stock regardless of whether the instrument possess derivative characteristics. This issue provides a two-step approach to assist in making these determinations and is effective for financial statements issued for fiscal years beginning after December 15, 2008. The adoption of ASC

815-40 did not have a material impact on the Company's consolidated financial statements.

In April 2009, the FASB issued guidance which is now part of ASC 825-10 Financial Instruments (formerly Financial Staff Position SFAS 107-1 and Accounting Principles Board (APB) Opinion No. 28-1, Interim Disclosures about Fair Value of Financial Instruments (SFAS 107-1 and APB 28-1). This statement amends FASB Statement No. 107, Disclosures about Fair Values of Financial Instruments, to require disclosures about fair value of financial instruments in interim financial statements as well as in annual financial statements. The statement also amends APB Opinion No. 28, "Interim Financial Reporting," to require those disclosures in all interim financial statements. This statement is effective for interim periods ending after June 15, 2009. The adoption of ASC 825-10 did not have an impact on the Company's financial statements.

In May 2009 and February 2010, the FASB issued new guidance for accounting for subsequent events. The new guidance, which is now part of ASC 855-10, Subsequent Events (formerly, SFAS No. 165, Subsequent Events) is consistent with existing auditing standards in defining subsequent events as events or transactions that occur after the balance sheet date but before the financial statements are issued or are available to be issued. The new guidance defines two types of subsequent events: "recognized subsequent events" and "non-recognized subsequent events." Recognized subsequent events provide additional evidence about conditions that existed at the balance sheet date and must be reflected in the company's financial statements. Non-recognized subsequent events provide evidence about conditions that arose after the balance sheet date and are not reflected in the financial statements of a company. Certain non-recognized subsequent events may require disclosure to prevent the financial statements from being misleading. The new guidance was effective on a prospective basis for interim or annual periods ending after June 15, 2009. The Company adopted the provisions of ASC 855-10 as required.

In June 2009, the FASB amended ASC 860, (formerly SFAS No. 166, Accounting for Transfers of Financial Assets, an amendment to SFAS No. 140). ASC 860 eliminates the concept of a "qualifying special-purpose entity," changes the requirements for derecognizing financial assets, and requires additional disclosures in order to enhance information reported to users of financial statements by providing greater transparency about transfers of financial assets, including securitization transactions, and an entity's continuing involvement in and exposure to the risks related to transferred financial assets. ASC 860 is effective for fiscal years beginning after November 15, 2009. The Company will adopt ASC 860 in fiscal 2010. The Company does not expect that the adoption of ASC 860 will have a material impact on its financial statements.

In June 2009, the FASB amended ASC 810 (formerly SFAS No.167, Amendments to FASB Interpretation No. 46). The amendments include: (1) the elimination of the exemption for qualifying special purpose entities, (2) a new approach for determining who should consolidate a variable-interest entity, and (3) changes to when it is necessary to reassess who should consolidate a variable-interest entity. ASC 810 is effective for the first annual reporting period beginning after November 15, 2009 and for interim periods within that first annual reporting period. The Company will adopt ASC 810 in fiscal 2010. The Company does not expect that the adoption of ASC 810 will have a material impact on its financial statements.

In June 2009, the FASB issued new guidance which is now part of ASC 105-10 (formerly Statement of Financial Accounting Standards No. 168, The FASB Accounting Standards Codification and the Hierarchy of Generally Accepted Accounting Principles). ASC 105-10 replaces FASB Statement No. 162, "The Hierarchy of Generally Accepted Accounting Principles", and establishes the FASB Accounting Standards Codification as the source of authoritative accounting principles recognized by the FASB to be applied by nongovernmental entities in the preparation of financial statements in conformity with generally accepted accounting principles. ASC 105-10 is effective for interim and annual periods ending after September 15, 2009. The adoption of ASC 105-10 did not have a material impact on the Company's financial statements.

In January, 2010, the FASB issued ASU 2010-06, Improving Disclosures about Fair Value Measurements. The standard amends ASC Topic 820, Fair Value Measurements and Disclosures to require additional disclosures related to transfers between levels in the hierarchy of fair value measurement. The standard does not change how fair values are measured. The standard is effective for interim and annual reporting periods beginning after December 15, 2009. As a result, it is effective for us in the first quarter of fiscal year 2010. We do not believe that the adoption of ASU 2010-06 will have a material impact on consolidated our financial statements.

4. Receivable

At December 31, 2009 and 2008, the Company had a receivable of $139,680 and $127,280, respectively, primarily related to annual licensing fees due to the Company. Due to the certainty of the collectability of the accounts

receivable, no allowance was recorded.

5. Other Assets

At December 31, 2009 and 2008, the Company had $323,235 and $330,032, respectively, of non-current other assets, which consist primarily of security deposits on contracts for research and development, prepaid insurance and leases for its facilities.

6. Marketable securities

The Company held $22.8 million of marketable securities at December 31, 2009. The Company has classified these investments as available for sale. These investments are comprised of federally insured certificates of deposit and these four accounts detailed as follows: $5.0 million with a maturity date of January 28, 2010; $8.8 million with a maturity date of April 1, 2010; $5 million with a maturity date of July 29, 2010; and $4 million with a maturity date of September 30, 2010.

7. Assets Held for Sale

In May 2009, the Company substantially completed the initial phase of the closure of its drug discovery research at its laboratory facility in San Diego, California. The Company concluded that it will conduct its research and development activities through third parties for the foreseeable future. The Company has sublet the laboratory facility, sold some of the laboratory equipment and is actively searching for additional buyers. In the third quarter of 2009, the fixed assets related to the San Diego laboratory were re-allocated from Equipment and Furnishings to Assets Held for Sale and were written down to their estimated net realizable value as of September 30, 2009, which resulted in a charge of $1.2 million for that quarter. In November 2009, the Company signed sublease agreements with two parties to sublet the facility for the remainder of the term of the lease, which expires in October, 2010. The Company recognized an onerous lease accrual of $254,000 as of September 2009.

Assets held for sale consisted of the following:

	December 31,	
(in thousands)	2009	2008
Long-lived assets held for sale:		
Plant and equipment, net	$ 74	$ —
Asssets held for sale	$ 74	$ —

As of December 31, 2009, the carrying amount approximates fair value. The costs associated with disposing of these assets held for sale are minimal.

8. Equipment, Furnishings and Molecular Library, net

Equipment, furnishings and molecular library, net, at December 31, 2009 and 2008 consist of the following (in thousands):

	2009	2008
Equipment and furnishings	$334	$2,606
Less — accumulated depreciation	(159)	(771)
Equipment and furnishings, net	175	1,835
Molecular library	$0	$447
Less — accumulated amortization	0	(343)
Molecular library, net	$0	$104

The molecular library was purchased in 2004 and placed in service by the Company in March 2005. In the third quarter of 2009, the molecular library was re-allocated to Assets Held for Sale and was written down to its estimated net realizable value.

Depreciation and amortization expense for the years ended December 31, 2009, 2008 and 2007 were approximately $475,000, $625,000 and $272,000, respectively.

9. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities at December 31, 2009 and 2008 are summarized below (in thousands).

	2009	2008

Professional fees	$423	$531
Research and development costs	1,255	1,662
Wages, bonuses and employee benefits	208	196
Income taxes	—	—
Other	606	168
Total	$2,492	$2,557

10. Warrant Liabilities

Liabilities measured at market value on a recurring basis include warrant liabilities resulting from the Company's 2009 equity financing. In accordance with the guidance which is now ASC 815-40 (formerly EITF (Emerging Issues Task Force) 00-19, Accounting for Derivative Financial Instruments Indexed and Potentially Settled in a Company's Own Stock), the warrant liabilities are being marked to market each quarter-end until they are completely settled. The warrants are valued using the Black-Scholes method, using assumptions consistent with our application of ASC 505-50. The gain or loss resulting from the marked to market calculation is shown on the Consolidated Statements of Operations as Gain on warrant derivative liability. The Company recognized a gain of $657,000 during 2009.

11. Commitments and Contingencies

The Company acquires assets still in development and enters into research and development arrangements with third parties that often require milestone and royalty payments to the third party contingent upon the occurrence of certain future events linked to the success of the asset in development. Milestone payments may be required, contingent upon the successful achievement of an important point in the development life-cycle of the pharmaceutical product (e.g., approval of the product for marketing by a regulatory agency). If required by the arrangement, CytRx may have to make royalty payments based upon a percentage of the sales of the pharmaceutical product in the event that regulatory approval for marketing is obtained. Because of the contingent nature of these payments, they are not included in the table of contractual obligations.

These arrangements may be material individually, and in the unlikely event that milestones for multiple products covered by these arrangements were reached in the same period, the aggregate charge to expense could be material to the results of operations in any one period. In addition, these arrangements often give CytRx the discretion to unilaterally terminate development of the product, which would allow CytRx to avoid making the contingent payments; however, CytRx is unlikely to cease development if the compound successfully achieves clinical testing objectives.

CytRx's current contractual obligations that will require future cash payments are as follows (in thousands):

	Operating Leases (1)(2)	Employment Agreements (3)	Subtotal	Research and Development (4)	Total
2010	$873	$ 2,210	$3,083	$ 3,018	$6,101
2011	536	—	536	49	585
2012	459	—	459	149	608
2013	318	—	318	149	467
2014 and thereafter	372	—	372	383	755
Total	$2,558	$ 2,210	$4,768	$ 3,748	$8,516

(1) Operating leases are primarily facility lease related obligations, as well as equipment and software lease obligations with third party vendors.

(2) The Company is entitled to receive future rental income under subleases in place which would be offset against future operating lease obligations as follows: $519,000 in 2010, $350,000 in 2011 and $235,000 in 2012.

(3) Employment agreements include management contracts, which have been revised from time to time, provide for minimum salary levels, adjusted annually at the discretion of the Company's Compensation Committee, as well as for minimum bonuses that are payable.

(4) Research and development obligations relate primarily to clinical trials. Most of these purchase obligations are cancelable.

The Company applies the disclosure provisions of ASC 460 (formerly FASB Interpretation No. 45, Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others), to its agreements that contain guarantee or indemnification clauses. The Company provides (i) indemnifications of varying scope and size to certain investors and other parties for certain losses suffered or incurred by the indemnified party in connection with various types of third-party claims; and (ii) indemnifications of varying scope and size to officers and directors against third party claims arising from the services they provide to us. These indemnifications and guarantees give rise only to the disclosure provisions of ASC 460. To date, the Company has not incurred material costs as a result of these obligations and does not expect to incur material costs in the future; further, the Company maintains insurance to cover certain losses arising from these indemnifications. Accordingly, the Company has not accrued any liabilities in its consolidated financial statements related to these indemnifications or guarantees.

12. Equity Transactions

On April 19, 2007, the Company completed a $37.0 million private equity financing in which it issued 8.6 million shares of its common stock at $4.30 per share. Net of investment banking commissions, legal, accounting and other expenses related to the transaction, the Company received approximately $34.2 million of proceeds.

On March 11, 2008, the Company paid a dividend to its stockholders of approximately 36% of the outstanding shares of RXi common stock. In connection with that dividend, the Company adjusted the price of warrants to purchase approximately 10.6 million shares that had been issued in prior equity financings in October 2004, January 2005 and March 2006. The adjustments were made as a result of anti-dilution provisions in those warrants that were triggered by the Company's distribution of a portion of its assets to its stockholders. The Company accounted for the anti-dilution adjustments as deemed dividends analogous with the guidance in ASC 470 (previously Emerging Issues Task Force Issue ("EITF") No. 98-5, Accounting for Convertible Securities with Beneficial Conversion Features or Contingently Adjustable Conversion Ratio)s, and ASC 470 (previously EITF 00-27, Application of 98-5 to Certain Convertible Instruments), and recorded an approximate $757,000 charge to accumulated deficit and a corresponding credit to additional paid-in capital.

On July 27, 2009, the Company completed a $20.0 million registered direct public offering in which it issued approximately 15.3 million shares of its common stock at a price of $1.31 per share, and warrants to purchase an additional approximately 4.7 million shares of common stock at an exercise price of $1.70 per share. Net of investment banking commissions, advisory fees, legal, accounting and other fees related to the transaction, the Company received proceeds of approximately $18.3 million (without giving effect to any proceeds that may in the future be received by the Company upon exercise of warrants sold in the offering). Immediately after the sale, the Company had approximately 109.5 million shares of common stock outstanding, without giving effect to the possible exercise of the warrants sold in the offering or any of our other outstanding warrants or stock options.

13. Noncontrolling Interest in RXi

Through February 2008, the Company owned approximately 85% of the outstanding shares of common stock of RXi. While RXi was majority-owned, the Company's consolidated financial statements reflected 100% of the assets and liabilities and results of operations of RXi, with the interests of the minority shareholders of RXi recorded as "noncontrolling interests." The Company offset $88,000 of loss in noncontrolling interest of RXi against its net loss for the months of January and February 2008.

On March 11, 2008, the Company distributed to its stockholders approximately 4.5 million shares of RXi common stock, or approximately 36% of RXi's outstanding shares, which reduced the Company's ownership to less than 50% of RXi. As a result, the Company began to account for its investment in RXi using the equity method, under which the Company records only its pro-rata share of the financial results of RXi. Because only a portion of RXi's financial results for 2008 were recorded by the Company under the equity method, the Company's results of operations for 2008 are not directly comparable to results of operations for the same period in 2009. The future results of operations of the Company also will not be directly comparable to corresponding periods in prior years during which our financial statements reflected the consolidation of RXi.

14. Equity Investment in RXi

Management determined that the distribution of RXi common stock to stockholders of CytRx in March 2008 represented a partial spin-off of RXi and accounted for the distribution of the RXi common shares at cost. As a result of its reduced ownership in RXi, CytRx began to account for its investment in RXi using the equity method, under which CytRx records only its pro-rata share of the financial results of RXi. The investment balance in RXi has been

reduced to zero and the Company has not made any advances or guarantees to RXi. Therefore the Company has stopped recording its share of losses from RXi.

The following table presents summarized financial information for RXi for the years ended December 31, 2009 and 2008:

Income Statement Data (in thousands)	Year Ended December 31, 2009	Year Ended December 31, 2008
Sales	$ —	$ —
Gross profit	—	—
Loss from continuing operations	(18,387)	(14,553)
Net Loss	(18,387)	(14,373)

Balance Sheet Data (in thousands)	December 31, 2009	December 31, 2008
Current assets	$ 5,805	$ 9,929
Noncurrent assets	448	430
Current liabilities	5,475	1,387
Stockholders' equity	743	8,968

At December 31, 2009, the fair value of CytRx's 5,768,881 shares of RXi common stock was $26.4 million based o the closing price of RXi common stock (NASDAQ: RXII) on that date. As CytRx accounts for its investment in RXi using the equity method, this value is not reflected 0n the CytRx balance sheet.

15. Stock Options and Warrants

CytRx Options

The Company has a 2000 Long-Term Incentive Plan under which an aggregate of 10 million shares of common stock were originally reserved for issuance. As of December 31, 2009, there were approximately 7.9 million shares subject to outstanding stock options and approximately 0.2 million shares available for future grant under this plan.

On July 1, 2009, the Company's stockholders adopted a new 2008 Stock Incentive Plan under which 10 million shares of common stock were reserved for issuance. As of December 31, 2009, there were 1.1 million shares subject to outstanding stock options under the plan and 8.9 million shares available for future grant under this plan.

The Company has adopted the provisions of ASC 718 (previously SFAS No. 123(R), Share-Based Payment ("SFAS 123(R)")), which requires the measurement and recognition of compensation expense for all stock-based awards made to employees and non-employees.

For stock options and stock warrants paid in consideration of services rendered by non-employees, the Company recognizes compensation expense in accordance with the requirements of ASC 718 (previously SFAS No. 123(R)), ASC 505-50 (previously Emerging Issues Task Force Issue No. 96-18 ("EITF 96-18")), Accounting for Equity Instruments that are Issued to other than Employees for Acquiring, or in Conjunction with Selling Goods or Services and ASC 505 (previously EITF 00-18, Accounting Recognition for Certain Transactions involving Equity Instruments Granted to Other Than Employees), as amended.

Non-employee option grants that do not vest immediately upon grant are recorded as an expense over the vesting period. At the end of each financial reporting period prior to performance, the value of these options, as calculated

using the Black-Scholes option-pricing model, is determined, and compensation expense recognized or recovered during the period is adjusted accordingly. Since the fair market value of options granted to non-employees is subject to change in the future, the amount of the future compensation expense is subject to adjustment until the common stock options or warrants are fully vested.

At the 2009 Annual Meeting of Stockholders held on July 1, 2009, the Company's stockholders approved an amendment to the Company's 2000 Long-Term Incentive Plan to allow for a one-time stock option re-pricing program for employees and officers. Pursuant to the re-pricing program, 3,265,500 eligible stock options held by ten eligible employees and officers were amended to reduce the exercise prices of the options to $1.15 per share, which was the closing sale price of CytRx's common stock as reported on the Nasdaq Capital Market on the July 1, 2009 completion date of the re-pricing program, and to impose a new option vesting schedule. None of the amended options vested immediately. To the extent a participating employee's or officer's eligible options were vested on the amendment date, the amended options vested in full on December 31, 2009, so long as the employee or officer remained in the Company's employ through that date. To the extent a participating employee's or officer's eligible options were unvested as of July 1, 2009, the original scheduled vesting was suspended until December 31, 2009 and resumed after that date, so long as the employee or officer remained in the Company's employ through such date. The incremental cost of the re-pricing program was approximately $0.4 million.

ASC 718 (previously SFAS No. 123(R)) requires the re-pricing of equity awards to be treated as the repurchase of the old award for a new award of equal or greater value, incurring additional compensation cost for any incremental value. This incremental difference in value is measured as the excess of the fair value of the modified award determined in accordance with the provisions of ASC 718 over the fair value of the original award immediately before its terms are modified, measured based on the share price and other pertinent factors at that date. ASC 718 provides that this incremental fair value, plus the remaining unrecognized compensation cost from the original measurement of the fair value of the old option, must be recognized over the remaining vesting period.

The fair value of the stock options at the date of grant was estimated using the Black-Scholes option-pricing model, based on the following assumptions:

	2009		2008		2007	
Risk-free interest rate	1.95	%	2.68	%	4.41	%
Expected volatility	97	%	102	%	108	%
Expected lives (years)	6		6		6	
Expected dividend yield	0.00	%	0.00	%	0.00	%

The Company's computation of expected volatility is based on the historical daily volatility of its publicly traded stock. For option grants issued during years ended December 31, 2009, 2008 and 2007, the Company used a calculated volatility for each grant. The Company's computation of expected lives was estimated using the simplified method provided for under ASC 718 (previously Staff Accounting Bulletin 107, Share-Based Payment ("SAB 107")), which averages the contractual term of the Company's options of ten years with the average vesting term of three years for an average of six years. The dividend yield assumption of zero is based upon the fact the Company has never paid cash dividends and presently has no intention of paying cash dividends. The risk-free interest rate used for each grant is equal to the U.S. Treasury rates in effect at the time of the grant for instruments with a similar expected life. Based on historical experience, for the year ended December 31, 2009, the Company has estimated an annualized forfeiture rate of 14% for options granted to its employees, 2% for options granted to senior management and 0% for options granted to directors. For the years ended December 31, 2008 and 2007, the Company has estimated an annualized forfeiture rate for each period of 10% for options granted to its employees, 3% for options granted to senior management and 0% for options granted to directors. Compensation costs will be adjusted for future changes in estimated forfeitures. The Company will record additional expense if the actual forfeitures are lower than estimated and will record a recovery of prior expense if the actual forfeiture rates are higher than estimated. No amounts relating to employee stock-based compensation have been capitalized.

At December 31, 2009, there remained approximately $2.5 million of unrecognized compensation expense related to unvested stock options granted to current and former employees and directors, to be recognized as expense over a weighted-average period of 1.12 years. Presented below is the Company's stock option activity for employees and directors:

	Stock Options			Weighted Average Exercise Price		
	2009	2008	2007	2009	2008	2007
Outstanding — beginning of year	6,409,940	4,932,273	4,500,208	$1.99	$2.46	$1.66
Granted	2,351,000	2,021,500	1,685,500	1.00	0.79	4.02
Exercised	(8,333)	(54,737)	(1,030,932)	0.37	0.92	1.76

Forfeited	(713,018)	(473,096)	(222,503)	2.57	2.08	1.24
Expired	(27,499)	(16,000)	—	1.07	1.00	—
Outstanding — end of year	8,012,090	6,409,940	4,932,273	1.02	1.99	2.46
Exercisable at end of year	2,261,309	4,109,839	3,210,320	$1.16	$2.07	$1.93
Weighted average fair value of stock options granted during the year:	$0.77	$0.63	$3.34			

A summary of the activity for unvested employee stock options (excluding re-priced options) as of December 31, and changes during the year is presented below:

	Stock Options			Weighted Average Grant Date Fair Value per Share		
	2009	2008	2007	2009	2008	2007
Nonvested at January 1,	2,300,100	1,721,952	1,183,214	$1.52	$2.92	$0.99
Granted	2,351,000	2,021,500	1,685,500	0.77	0.63	3.34
Vested	(924,392)	(970,256)	(924,259)	2.10	2.10	1.67
Pre-vested forfeitures	(713,018)	(473,096)	(222,503)	2.11	1.74	1.06
Nonvested at December 31,	3,013,690	2,300,100	1,721,952	$0.70	$1.52	$2.92

For stock options paid in consideration of services rendered by non-employees, the Company recognizes compensation expense in accordance with the requirements of ASC 718, ASC 503-50 (formerly Emerging Issues Task Force Issue No. 96-18 ("EITF 96-18"), Accounting for Equity Instruments that are Issued to other than Employees for Acquiring, or in Conjunction with Selling Goods or Services and formerly EITF 00-18, Accounting Recognition for Certain Transactions involving Equity Instruments Granted to Other Than Employees, as amended).

Non-employee option grants that do not vest immediately upon grant are recorded as an expense over the vesting period. At the end of each financial reporting period prior to performance, the value of these options, as calculated using the Black-Scholes option-pricing model, is determined, and compensation expense recognized or recovered during the period is adjusted accordingly. Since the fair market value of options granted to non-employees is subject to change in the future, the amount of the future compensation expense is subject to adjustment until the common stock options are fully vested.

The Company recorded approximately $0, ($0.4) million and $0.4 million of non-cash charges related to the issuance of stock options to certain consultants in exchange for services during 2009, 2008 and 2007, respectively.

At December 31, 2009, there remained approximately $0.1 million (subject to change in the future based on vesting date fair value) of unrecognized compensation expense related to unvested non-employee stock options to be recognized as expense over a weighted-average period of 2.0 years. Presented below is the Company's non-employee stock option activity:

	Stock Options			Weighted Average Exercise Price		
	2009	2008	2007	2009	2008	2007
Outstanding — beginning of year	995,000	1,067,000	2,358,000	$0.91	$1.44	$1.66
Granted	—	350,000	—	—	0.35	—
Exercised	—	—	(728,500)	—	—	1.86
Forfeited	—	(402,000)	(562,500)	—	1.85	1.85
Expired	—	(20,000)	—	—	0.30	—
Outstanding — end of year	995,000	995,000	1,067,000	0.91	0.91	1.44
Exercisable at end of year	545,080	445,000	817,000	$1.00	$1.18	$1.54
Weighted average fair value of stock options granted during the year:	$0	$0.33	$0			

The fair value of the stock options at the date of grant was estimated using the Black-Scholes option-pricing model, based on the following assumptions:

	2009	2008	2007
Risk-free interest rate	—	2.68 %	—
Expected volatility	—	123 %	—
Expected lives (years)	—	10	—
Expected dividend yield	—	0 %	—

A summary of the activity for nonvested, non-employee stock options as of December 31, and changes during the years are presented below:

	Stock Options			Weighted Average Grant Date Fair Value per Share		
	2009	2008	2007	2009	2008	2007
Nonvested at January 1,	550,000	250,000	916,663	$0.58	$1.00	$1.44
Granted	—	350,000	—	—	0.33	—
Vested	(100,080)	(50,000)	(104,163)	0.33	2.33	1.63
Pre-vested forfeitures	—	—	(562,500)	—	—	1.63
Nonvested at December 31,	449,920	550,000	250,000	$1.38	$0.58	$1.00

The following table summarizes significant ranges of outstanding stock options under the three plans at December 31, 2009:

Range of Exercise Prices	Number of Options	Weighted Average Remaining Contractual Life (years)	Weighted Average Exercise Price	Number of Options Exercisable	Weighted Average Contractual Life	Weighted Average Exercise Price
$0.30 — 1.00	2,302,607	7.89	$0.57	1,290,762	7.89	$0.62
$1.01 — 1.50	6,176,483	7.20	1.13	3,723,317	7.20	1.16
$2.35 — 3.33	528,000	4.55	2.27	528,000	4.55	2.27
	9,007,090	7.22	$1.05	5,542,079	7.22	$1.16

The aggregate intrinsic value of outstanding options as of December 31, 2009 was $1.3 million, which represents options whose exercise price was less than the closing fair market value of the Company's common stock on December 31, 2009 of $1.12.

RXi Pharmaceuticals

RXi has its own stock option plan. RXi accounted for stock option expense in the same manner as CytRx as described above.

As discussed in Note 2, the Company has accounted for its investment in RXi under the equity method since March 2008, and accordingly, the following table sets forth the total stock-based compensation expense for January and February 2008 resulting from RXi stock options that is included in the Company's consolidated statements of operations:

	2009	2008	2007
Research and development — employee	$ —	$ 28,000	$ 120,000
General and administrative — employee	—	369,000	931,000
Total employee stock-based compensation	$ —	$ 397,000	$ 1,051000
Research and development — non-employee	$ —	$ 121,000	$ 1,043,000
General and administrative — non-employee	—	—	—
Total non-employee stock-based compensation	$ —	$ 121,000	$ 1,043,000

CytRx Warrants

A summary of the Company's warrant activity and related information for the years ended December 31 are shown below.

	Warrants			Weighted Average Exercise Price		
	2009	2008	2007	2009	2008	2007
Outstanding — beginning of year	10,634,848	13,031,515	23,360,165	$1.40	$1.87	$1.83
Granted	6,328,330	—	—	1.61	—	—
Exercised	(250,000)	(951,665)	(10,233,650)	1.16	0.97	1.77
Forfeited	—	—	—	—	—	—
Expired	(1,295,000)	(1,445,002)	(95,000)	1.28	2.60	2.25
Outstanding — end of year	15,418,178	10,634,848	13,031,515	1.50	1.40	1.87
Exercisable at end of year	15,418,178	10,634,848	13,031,515	$1.50	$1.40	$1.87
Weighted average fair value of warrants granted during the year:	$1.61	$—	$—			

The following table summarizes additional information concerning warrants outstanding and exercisable at December 31, 2009:

Range of Exercise Prices	Number of Shares	Weighted Average Remaining Contractual Life (years)	Weighted Average Exercise Price	Warrants Number of Shares Exercisable	Exercisable Weighted Average Exercise Price
$0.26 — 1.26	3,322,767	2.22	$0.94	3,322,767	$0.94
$1.51 — 1.62	6,861,790	0.07	1.51	6,861,790	1.51
$1.70 — 1.84	4,735,973	4.57	1.70	4,735,973	1.70
$2.25 — 4.00	497,648	0.90	3.07	497,648	3.07
	15,418,178	1.94	$1.48	15,418,178	$1.50

16. ALSCRT Amendment

Pursuant to an amendment signed between the Company and the beneficiary of the ALSCRT on August 6, 2009, the Company was released from all restrictions on the use of any proceeds previously paid to the Company in connection with the arrangement. As a result, the Company recognized $6.7 million as service revenue in the third quarter of 2009, which represented the remaining deferred revenue and previously un-recognized portion of the value received.

17. Stockholder Protection Rights Plan

Effective April 16, 1997, the Company's board of directors declared a distribution of one right ("Rights") for each outstanding share of the Company's common stock to stockholders of record at the close of business on May 15, 1997 and for each share of common stock issued by the Company thereafter and prior to a Flip-in Date (as defined below). Each Right entitles the registered holder to purchase from the Company one-ten thousandth (1/10,000th) of a share of Series A Junior Participating Preferred Stock, at an exercise price of $30. The Rights are generally not exercisable until 10 business days after an announcement by the Company that a person or group of affiliated persons (an "Acquiring Person") has acquired beneficial ownership of 15% or more of the Company's then outstanding shares of common stock (a "Flip-in Date").

In the event the Rights become exercisable as a result of the acquisition of shares, each Right will enable the owner, other than the Acquiring Person, to purchase at the Right's then-current exercise price a number of shares of common stock with a market value equal to twice the exercise price. In addition, unless the Acquiring Person owns more than 50% of the outstanding shares of common stock, the Board of Directors may elect to exchange all outstanding Rights (other than those owned by such Acquiring Person) at an exchange ratio of one share of common stock per Right. All Rights that are owned by any person on or after the date such person becomes an Acquiring Person will be null and void.

The Rights have been distributed to protect the Company's stockholders from coercive or abusive takeover tactics and to give the Board of Directors more negotiating leverage in dealing with prospective acquirors. In April 2007, the Company extended the stockholder rights plan through April 2017.

18. Income Taxes

At December 31, 2009, the Company had federal and state net operating loss carryforwards of $91.6 million and $81.9 million, respectively, available to offset against future taxable income, which expire in 2011 through 2029. As a

result of a change in-control that occurred in the CytRx shareholder base in July 2002, approximately $34.7 million in federal net operating loss carryforwards became limited in their availability to $0.3 million annually. Management currently believes that the remaining $56.9 million in federal net operating loss carryforwards, and the $57.6 million in state net operating loss carryforwards, are unrestricted. However, management is reviewing its recent equity transactions to determine if they may have resulted in any further restrictions on the Company's net operating loss carryforwards. As of December 31, 2009, CytRx also had research and development and alternative minimum tax credits for federal and state purposes of approximately $8.9 million and $0, respectively, available for offset against future income taxes, which expire in 2022 through 2029. Based on an assessment of all available evidence including, but not limited to, the Company's limited operating history in its core business and lack of profitability, uncertainties of the commercial viability of its technology, the impact of government regulation and healthcare reform initiatives, and other risks normally associated with biotechnology companies, the Company has concluded that it is more likely than not that these net operating loss carryforwards and credits will not be realized and, as a result, a 100% deferred tax valuation allowance has been recorded against these assets.

Deferred income taxes reflect the net effect of temporary differences between the financial reporting carrying amounts of assets and liabilities and income tax carrying amounts of assets and liabilities. The components of the Company's deferred tax assets and liabilities, all of which are long-term, are as follows (in thousands):

	December 31,	
	2009	2008
Net operating loss carryforwards	$ 35,285	$ 34,407
Tax credit carryforwards	8,957	6,071
Equipment, furnishings and other	8,142	4,358
Deferred revenue	—	3,744
Total deferred tax assets	52,384	48,580
Deferred tax liabilities	(560)	(407)
Net deferred tax assets	51,824	48,173
Valuation allowance	(51,824)	(48,173)
	$ —	$ —

For all years presented, the Company did not recognize any deferred tax assets or liabilities. The net change in valuation allowance for the years ended December 31, 2009 and 2008 was $3,651,000 and ($5,073,000), respectively.

The provision for income taxes differs from the provision computed by applying the Federal statutory rate to net loss before income taxes as follows (in thousands):

	Years ended December 31,		
	2009	2008	2007
Federal benefit at statutory rate	$ (1,809)	$ (8,899)	$ (7,781)
State income taxes, net of Federal taxes	(310)	(1,525)	(908)
Permanent differences	(136)	16,272	65
Provision related to change in valuation allowance	3,651	(5,073)	9,416
Net change in research and development tax credits	(2,826)	(2,207)	(1,125)
Other, net	911	(2,304)	373
	$ (519)	$ 872	$ 40

As of January 1, 2007, the Company had no unrecognized tax benefits and there was no effect on its financial condition or results of operations as a result of implementing ASC 740. There have been no changes to the Company's liability for unrecognized tax benefits during the year ended December 31, 2009.

The Company and its Subsidiaries file income tax returns in the U.S. Federal jurisdiction and various state jurisdictions. As of the date of adoption of ASC 740 and the year ended December 31, 2009, the tax returns for 2006 through 2008 remain open to examination by the Internal Revenue Service and various state tax authorities.

The Company's policy is to recognize any interest and penalties related to unrecognized tax benefits as a component of income tax expense. As of the date of adoption of ASC 740 and the years ended December 31, 2009 and 2008, the Company had accrued no interest or penalties related to uncertain tax positions.

19. Quarterly Financial Data (unaudited)

Summarized quarterly financial data for 2009 and 2008 is as follows (in thousands, except per share data):

	Quarters Ended			
	March 31	June 30	September 30	December 31
	(In thousands, except per share data)			
2009				
Total revenues	$1,483	$1,000	$6,954	$100
Net income (loss)	(3,973)	(2,226)	3,863	(2,464)
Net income (loss) applicable to common stockholders	$(3,973)	$(2,226)	$3,863	$(2,464)
Basic and diluted loss per share applicable to common stock	$(0.04)	$(0.02)	$0.04	$(0.03)
2008				
Total revenues	$2,181	$1,740	$917	$1,428
Net loss	(5,374)	(5,826)	(12,316)	(3,530)
Deemed dividend for anti-dilution adjustments made to outstanding common stock warrants	(757)	—	—	—
Net loss applicable to common stockholders	$(6,131)	$(5,826)	$(12,316)	$(3,530)
Basic and diluted income (loss) per share applicable to common stock	$(0.07)	$(0.06)	$(0.14)	$(0.03)

Quarterly and year-to-date loss per share amounts are computed independently of each other. Therefore, the sum of the per share amounts for the quarters may not agree to the per share amounts for the year.

In connection with the Company's adjustment to the exercise terms of certain outstanding warrants to purchase common stock on March 11, 2008, the Company recorded a deemed dividend of $757,000. That deemed dividend is reflected as an adjustment to net loss for the first quarter of 2008 to arrive at net loss applicable to common stockholders on the consolidated statements of operations and for purposes of calculating basic and diluted earnings per shares.

20. Acquisition of Innovive Pharmaceuticals

On September 19, 2008, the Company completed the merger of Innovive with CytRx Merger Subsidiary, Inc., the Company's wholly owned subsidiary, with Innovive continuing as the surviving corporation. As a result, Innovive became a wholly owned subsidiary of CytRx and changed its name to CytRx Oncology Corporation. Because Innovive was a development stage company, under accounting principles generally accepted in the United States and the SEC regulations, it was not considered a business. Accordingly, CytRx accounted for the merger in accordance with ASC 350 (previously Statement of Financial Accounting Standards No. 142, Goodwill and Other Intangible Assets), for transactions other than a business combination. The initial merger consideration, together with direct costs incurred to effect the merger, were allocated to the individual assets acquired, including identifiable intangible assets and liabilities assumed based on the relative fair value. No goodwill was recorded. The Company's consolidated financial statements reflect these fair values and were not restated retroactively to reflect the historical financial position or results of operations of Innovive. In connection with the merger, the Company recorded a one-time expense for acquired in-process research and development. Under the merger agreement by which the Company acquired Innovive, it agreed to pay the former Innovive stockholders a total of up to approximately $18.3 million of future earnout merger consideration, subject to the Company's achievement of specified net sales under the

Innovive license agreements. The earnout merger consideration, if any, will be payable in shares of CytRx common stock, subject to specified conditions, or, at the Company's election, in cash or by a combination of shares of CytRx common stock and cash. The Company's common stock will be valued for purposes of any future earnout merger consideration based upon the trading price of its common stock at the time the earnout merger consideration is paid.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders
CytRx Corporation
Los Angeles, California

We have audited the accompanying consolidated balance sheets of CytRx Corporation ("the Company") as of December 31, 2009 and 2008 and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2009. We have also audited the schedule listed in the accompanying index under Item 15a (2). These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of CytRx Corporation at December 31, 2009 and 2008, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2009, in conformity with accounting principles generally accepted in the United States of America.

As more fully described in Note 3 to the consolidated financial statements, effective January 1, 2009, the Company adopted the
Amendments to the provisions of Accounting Standards Codification 810-10, Consolidation.

Also, in our opinion, the financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, present fairly, in all material respects, the information set forth therein.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), CytRx Corporation's internal control over financial reporting as of December 31, 2009, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and our report dated March 12, 2010 expressed an unqualified opinion thereon.

/s/ BDO SEIDMAN, LLP

Los Angeles, California
March 12, 2010

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Shareholders
CytRx Corporation
Los Angeles, California

We have audited CytRx Corporation's ("the Company") internal control over financial reporting as of December 31, 2009, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). CytRx Corporation's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying "Item 9A, Controls and Procedures." Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, CytRx Corporation maintained, in all material respects, effective internal control over financial reporting as of December 31, 2009, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the balance sheets of the Company as of December 31, 2009 and 2008, and the related statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2009 and our report dated March 12, 2010 expressed an unqualified opinion thereon.

/s/ BDO SEIDMAN, LLP

Los Angeles, California
March 12, 2010

CYTRX CORPORATION
SCHEDULE II — VALUATION AND QUALIFYING ACCOUNTS
For the Years Ended December 31, 2009, 2008 and 2007

Description	Balance at Beginning of Year	Additions Charged to Costs and Expenses	Charged to Other Accounts	Deductions	Balance at End of Year
Reserve Deducted in the Balance Sheet from the Asset to Which it Applies:					
Allowance for Deferred Tax Assets					
Year ended December 31, 2009	$ 48,998,000	$ —	$ 2,826,000	$ —	$ 51,824,000
Year ended December 31, 2008	$ 53,246,000	$ —	$ —	$ 4,248,000	$ 48,998,000
Year ended December 31, 2007	$ 43,830,000	$ —	$ 9,416,000	$ —	$ 53,246,000