

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

| ✓ | ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE |
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| | ACT OF 1934 FOR THE FISCAL YEAR ENDED DECEMBER 31, 2009 |
| | TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES |
| | EXCHANGE ACT OF 1934 FOR THE TRANSITION PERIOD FROM TO |

Commission File No. 0-28298

Onyx Pharmaceuticals, Inc. (Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of Incorporation or Organization) 94-3154463

(I.R.S. Employer Identification No.)

2100 Powell Street Emeryville, California 94608 (510) 597-6500

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

| Securities Registered Pursuant to Section 12(b) of the Act: | | | | |
|--|---|--|--|--|
| Title of Each Class | Name of Each Exchange on Which Registered | | | |
| Common Stock \$0.001 par value Securities Registered Pur | NASDAQ Global Market rsuant to Section 12(g) of the Act: None | | | |
| Indicate by check mark if the registrant is a well. Act. Yes ☑ No □ | l-known seasoned issuer, as defined in Rule 405 of the Securities | | | |
| Indicate by check mark if the registrant is not re the Act. Yes \square No \square | equired to file reports pursuant to Section 13 or Section 15(d) of | | | |
| | (1) has filed all reports required to be filed by Section 13 or 15(d) preceding 12 months (or for such shorter period that the Registrant subject to such filing requirements for the past | | | |
| any, every Interactive Data File required to be subm | as submitted electronically and posted on its corporate Website, if nitted and posted pursuant to Rule 405 of Regulation S-T months (or for such shorter period that the registrant was required | | | |
| of this chapter) is not contained herein, and will not | ent filers pursuant to Item 405 of Regulation S-K (Section 229.405 to be contained, to the best of registrant's knowledge, in definitive ference in Part III of this Form 10-K or any amendment to this | | | |
| | a large accelerated filer, an accelerated filer, a non-accelerated filors of "large accelerated filer," "accelerated filer" and "smaller Act. (Check one): | | | |
| | □ Non-accelerated filer □ Smaller reporting company □ Do not check if a smaller reporting company) | | | |
| Indicate by check mark whether the registrant is Act): Yes \square No \boxtimes | s a shell company (as defined in Rule 12b-2 of the Exchange | | | |

The aggregate market value of the voting stock held by nonaffiliates of the Registrant based upon the last trade

price of the common stock reported on the NASDAQ Global Market on June 30, 2009 was approximately \$1,186,134,287, this excludes 14,945,555 shares of Common Stock held by directors, officers and stockholders whose beneficial ownership exceeds 5% of the Registrant's Common Stock outstanding. The number of shares owned by stockholders whose beneficial ownership exceeds 5% was determined based upon information supplied by such persons and upon Schedules 13D and 13G, if any, filed with the SEC. Exclusion of shares held by any person should not be construed to indicate that such person possesses the power, direct or indirect, to direct or cause the direction of the management or policies of the Registrant, that such person is controlled by or under common control with the Registrant, or that such persons are affiliates for any other purpose.

The number of shares of common stock outstanding as of February 18, 2010 was 62,394,242.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's Definitive Proxy Statement for its 2010 Annual Meeting of Stockholders, which will be filed with the Commission within 120 days of December 31, 2009, are incorporated herein by reference into Part III items 10-14 of this Annual Report on Form 10-K.

2

PART I.

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These statements involve known and unknown risks, uncertainties and other factors that may cause our or our industry's results, levels of activity, or achievements to differ significantly and materially from that expressed or implied by such forward-looking statements. These factors include, among others, those set forth in Item 1A "Risk Factors" and elsewhere in this Annual Report on Form 10-K. In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "intend," "expect," "plan," "anticipate," "believe," "estimate," "predict," "potential," or "continue," or the negative of such terms or other comparable terminology.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, events, levels of activity, performance or achievements. We do not assume responsibility for the accuracy and completeness of the forward-looking statements. We do not intend to update any of the forward-looking statements after the date of this Annual Report on Form 10-K to conform these statements to actual results, unless required by law.

All references to "the Company," "Onyx," "we," "our," and "us" in this Annual Report on Form 10-K refer collectively to Onyx Pharmaceuticals, Inc. and its wholly-owned subsidiary, formerly known as Proteolix, Inc. and, currently known as Onyx Therapeutics, Inc., except where it is made clear that the term means only the parent company or unless the context requires otherwise. All references to "Proteolix" in this Annual Report on Form 10-K refer to Proteolix, Inc.

Item 1. Business

Overview

We are a biopharmaceutical company dedicated to developing innovative therapies that target the molecular mechanisms that cause cancer. Through our internal research programs and in conjunction with our collaborators, we are applying our expertise to develop and commercialize therapies designed to exploit the genetic and molecular differences between cancer cells and normal cells with the goal of *Changing the Way Cancer is Treated* TM. We are focusing on this goal as we continue to maximize current commercialization opportunities for Nexavar[®] (sorafenib) tablets, along with our collaborator, Bayer HealthCare Pharmaceuticals Inc., or Bayer. In addition, we continue to expand our development pipeline, with several clinical and preclinical stage product candidates.

In November 2009, we advanced significantly towards our goal of broadening our pipeline of anticancer compounds through our acquisition of Proteolix, Inc., or Proteolix, a privately-held biopharmaceutical company in South San Francisco. Proteolix had made significant strides in the discovery and development of novel proteasome inhibitors and, particularly, with their lead compound carfilzomib, a selective proteasome inhibitor, being developed for the treatment of patients with multiple myeloma and solid tumors. This acquisition provides us with an opportunity to enter the hematologic cancer market. Carfilzomib is a mid-to late-stage compound with the potential for accelerated marketing approval based on our current clinical trial schedule and assuming favorable clinical and regulatory outcomes. In addition to carfilzomib, through our acquisition of Proteolix we acquired two early-stage compounds under development: an oral proteasome inhibitor (ONX 0912) and a selective inhibitor of the immunoproteasome (ONX 0914).

We were incorporated in California in February 1992 and reincorporated in Delaware in May 1996. Our corporate headquarters are located at 2100 Powell Street, Emeryville, California 94608, and our telephone number is (510) 597-6500.

Our Strategy

We plan to achieve our business strategy of transforming Onyx into a leading biopharmaceutical company in the oncology market by:

- maximizing current opportunities worldwide for Nexavar in approved indications;
- preparing for future commercialization opportunities of Nexavar and carfilzomib;

- investing in a broad and balanced development program for Nexavar by pursuing other types of
 cancer that Nexavar may help in treating, including lung, breast, thyroid, ovarian and colorectal
 cancers:
- advancing the development of our pipeline, including carfilzomib, the ONX 0912, ONX 0914 and ONX 0801 programs, and assessing in-licensing opportunities, such as our option to in-license ONX 0803 and ONX 0805 (both Janus Kinase, or JAK2, inhibitors); and
- continuing to expand our pipeline by pursuing other investments and opportunities with disciplined financial goals.

Marketed Product — Nexavar

Our first commercially available product, Nexavar, is approved by the United States Food and Drug Administration, or FDA, for the treatment of patients with unresectable liver cancer and advanced kidney cancer. Nexavar is a novel, orally available multiple kinase inhibitor that acts through dual mechanisms of action by inhibiting angiogenesis and the proliferation of cancer cells. A common feature of cancer cells is the excessive activation of signaling pathways that cause abnormal cell proliferation. In addition, tumors require oxygen and nutrients from newly formed blood vessels to support their growth. The formation of these new blood vessels is called angiogenesis. Nexavar inhibits the signaling of VEGFR-1, VEGFR-2, VEGFR-3 and PDGFR-B, key receptors of Vascular Endothelial Growth Factor, or VEGF, and Platelet-Derived Growth Factor, or PDGF. Both receptors play a role in angiogenesis. Nexavar also inhibits RAF kinase, an enzyme in the RAS signaling pathway that has been shown in preclinical models to be important in cell proliferation. In normal cell proliferation, when the RAS signaling pathway is activated, or turned "on," it sends a signal telling the cell to grow and divide. When a gene in the RAS signaling pathway is mutated, the signal may not turn "off" as it should, causing the cell to continuously reproduce. The RAS signaling pathway plays an integral role in the growth of some tumor types such as colorectal cancer, liver cancer and lung cancer, and we believe that inhibiting this pathway could have an effect on tumor growth. Nexavar also inhibits other kinases involved in cancer, such as KIT, FLT-3 and RET.

Commercialization Status

We and Bayer are commercializing Nexavar for the treatment of patients with unresectable liver cancer and advanced kidney cancer. Nexavar has been approved and is marketed for these indications in the United States, European Union and in other territories worldwide. Nexavar was approved for the treatment of patients with advanced kidney cancer by the FDA in December 2005. It was approved by the European Union in July 2006 for the treatment of patients with advanced kidney cancer who have failed prior therapy or are considered unsuitable for other therapies. Nexavar has been approved in more than 90 countries worldwide for advanced kidney cancer. In the fourth quarter of 2007, Nexavar was approved in the European Union and United States for the treatment of patients with unresectable liver cancer. Nexavar is now approved in more than 90 countries for this indication. In the United States, we co-promote Nexavar with Bayer. Outside of the United States, Bayer manages all commercialization activities. In 2009, worldwide net sales of Nexavar, as recorded by Bayer, totaled \$843.5 million.

4

Product Candidates in Clinical Trials

The following is a partial listing of the development status of Nexavar and our other product candidates in clinical trials and the status for select indications.

| Product Candidate | Indication | Current Status |
|------------------------------|---|---------------------------|
| Nexavar | | |
| | Liver Cancer | |
| | Adjuvant therapy | Phase 3 |
| | First line, erlotinib +/- | Phase 3 |
| | Locoregional therapies, e.g. TACE | Phase 2 |
| | Kidney Cancer | |
| | Adjuvant therapy | Phase 3 |
| | Non-Small Cell Lung Cancer | 111450 5 |
| | • First line, | Phase 3 |
| | gemcitabine/cisplatin +/- | 1 11450 5 |
| | • Third/fourth line, monotherapy | Phase 3 |
| | Thyroid Cancer | Thase 3 |
| | • Monotherapy | Phase 3 |
| | Breast Cancer | Thase 3 |
| | • First/second line, capecitabine | Phase 2; Phase 3 planned |
| | +/- | |
| | • First line, paclitaxel +/- | Phase 2 |
| | First/second line, gemcitabine or capecitibine +/- following treatment with bevacizumab | Phase 2 |
| | First line, docetaxel or letrozole +/- | Phase 2 |
| | Ovarian Cancer | |
| | Maintenance therapy | Phase 2 |
| | Colorectal Cancer | |
| | First line, combination | Phase 2 |
| Carfilzomib | , | |
| | Multiple Myeloma | |
| | • Monotherapy | Phase 2b |
| | • Revlimid, dexamethasone +/- | Phase 1b; Phase 3 planned |
| | Solid Tumor | , 1 |
| | Monotherapy | Phase 2 |
| Cell Cycle Kinase Inhibitor* | 13 | Phase 2 |
| ONX 0801 | | Phase 1; Phase 2 planned |
| ONX 0912 | | IND accepted |
| ONX 0803, ONX 0805** | | Phase 1/2; preclinical |
| ONX 0914 | | Preclinical |
| | | |

^{*} Outlicensed to Pfizer Inc.

^{**} Subject to exercise of our option to in-license.

Nexavar Development Strategy with Bayer

We and Bayer are executing the Nexavar development strategy with three primary areas of focus. First, we have several ongoing clinical trials that are designed to expand Nexavar's position in the two previously approved indications, unresectable liver cancer and advanced kidney cancer. These include studies in adjuvant therapies (or treatment given in addition to the primary treatment such as surgery) and in combination with other anti-cancer therapies. Secondly, we have several ongoing and planned Phase 3 registration studies in cancer types and settings for which we believe Nexavar's unique features and evidence of activity support development.

Finally, we are conducting multiple studies, including a portfolio of large randomized Phase 2 studies, which will serve as screening studies that may provide information for the future design of Phase 3 trials in a variety of cancer types, lines of therapy and in combination with other anti-cancer agents. We believe Nexavar's unique features, including its efficacy, oral availability and tolerability, may be important attributes that could differentiate it from other anti-cancer agents and enable it to be used broadly in the treatment of cancer. In addition to conducting company-sponsored clinical trials, we collaborate on clinical trials with government agencies, cooperative groups, and individual investigators. Our goal is to maximize Nexavar's commercial and clinical potential by simultaneously running multiple studies to produce the clinical evidence necessary to determine whether Nexavar can benefit patients with other types of cancers. Additionally, because it is difficult to predict the success of any individual clinical trial, running multiple trials may mitigate the risk of failure of any single clinical trial.

Under our collaboration agreement, we and Bayer are jointly developing Nexavar internationally, with the exception of Japan. In Japan, Bayer funds all product development, and we receive a royalty on sales. The following is a summary of our key clinical trials with Bayer.

Liver Cancer Program

Phase 3 Trial. In March 2005, we and Bayer initiated an international, randomized, double-blind, placebo-controlled Phase 3 clinical trial of Nexavar administered as a single agent in patients with advanced hepatocellular carcinoma, or HCC, also known as liver cancer. The Phase 3 study with planned enrollment of approximately 600 patients, known as the Sorafenib HCC Assessment Randomized Protocol (SHARP) trial, was designed to measure differences in overall survival, time to symptom progression and time to tumor progression of Nexavar versus placebo in patients with advanced liver cancer. In February 2007, we and Bayer announced that an independent data monitoring committee, or DMC, had reviewed the data from the trial at a planned interim analysis and concluded that the trial met its primary endpoint resulting in superior overall survival in those patients receiving Nexavar compared with those receiving placebo. The DMC also noted no demonstrated difference in the serious adverse event rates between Nexavar and placebo. Subsequently, we and Bayer made the decision to stop the trial early and allowed all patients in the trial to be offered access to Nexavar, enabling them to "crossover" to Nexavar treatment.

Phase 3 Trial. We and Bayer conducted a double-blind, randomized, placebo-controlled Phase 3 trial in the Asia Pacific region, known as the Asia-Pacific Liver Cancer Study, with enrollment of approximately 200 patients, that was designed to evaluate Nexavar in patients with liver cancer who had no prior systemic therapy. In August 2007, we and Bayer announced that a planned DMC review found that in comparing patients administered Nexavar versus patients administered placebo, Nexavar met its primary endpoints with significantly improved overall survival, progression-free survival and time to progression. Based on the DMC's recommendation, the trial was stopped early to allow all patients to receive treatment with Nexavar.

Phase 3 Trial. In August 2008, we and Bayer have initiated an international, randomized, placebo-controlled Phase 3 clinical trial evaluating Nexavar as an adjuvant therapy for patients with liver cancer who have undergone resection or loco-regional treatment with curative intent. This study, known as the Sorafenib as Adjuvant Treatment in the Prevention of Recurrence of Hepatocellular Carcinoma (STORM) trial, will evaluate Nexavar in approximately 1,100 patients. The primary endpoint of the study is recurrence free survival. Secondary endpoints include overall survival, time to recurrence, patient-reported outcome, plasma biomarkers, safety and tolerability.

Phase 3 Trial. In May 2009, we and Bayer initiated an international Phase 3 trial examining Nexavar tablets in combination with Tarceva® (erlotinib) tablets as a potential new treatment option for patients with advanced HCC, a primary liver cancer. The randomized, double-blind, placebo-controlled Phase 3 study with planned enrollment of approximately 700 patients, known as the Sorafenib and Erlotinib, a Randomized Trial Protocol for the Treatment of Patients with HCC (SEARCH), trial aims to further build on data from the Phase 3 SHARP trial and will examine whether Nexavar in combination with Tarceva prolongs survival as compared to Nexavar alone. The primary endpoint of the study is overall survival. Secondary endpoints include safety, time to progression, disease control rate and patient-reported outcome.

Phase 2 Trial. In March 2009, we and Bayer initiated an international, randomized, double-blind, placebo-controlled Phase 2 clinical trial evaluating Nexavar or a placebo in combination with transarterial chemoembolization (TACE) performed with DC beads and doxorubicin for patients with intermediate stage HCC. The study, known as the Sorafenib or Placebo in combination with TACE for intermediate hepatocellular carcinoma (SPACE) trial, will evaluate safety and efficacy of Nexavar in approximately 350 patients. The primary endpoint of the study is time to progression. Secondary endpoints include overall survival, time to untreatable progression, time to vascular invasion/extrahepatic spread, patient-reported outcome and biomarker analysis.

Kidney Cancer Program

Phase 3 Trial. In March 2005, enrollment completed in a placebo-controlled, randomized Phase 3 trial of more than 900 patients evaluating the safety and efficacy of Nexavar in the treatment of advanced kidney cancer, also referred to as advanced renal cell carcinoma, or RCC. In the first quarter of 2005, we and Bayer announced that an independent DMC had reviewed the data from the trial and concluded that Nexavar met its primary endpoint with significantly prolonged progression-free survival. Subsequently, we and Bayer allowed all patients in the Phase 3 kidney cancer trial to be offered access to Nexavar, enabling them to "crossover" to Nexavar treatment.

Phase 3 Trial. In May 2006, the Eastern Cooperative Oncology Group, or ECOG, initiated an international, randomized, placebo-controlled Phase 3 clinical study, known as the Adjuvant Sorafenib or Sunitinib for Unfavorable Renal Carcinoma (ASSURE) trial, evaluating Nexavar versus sunitinib as an adjuvant therapy for patients with advanced kidney cancer that has been removed by surgery with no evidence of residual disease. Planned enrollment is for approximately 1,900 patients. The primary endpoint of the study is disease-free survival. Secondary endpoints include overall survival and quality of life.

Phase 2 Trial. In September 2007, the ECOG initiated a randomized, four-arm Phase 2 clinical study, known as the Bevacizumab, Sorafenib and Temsirolimus in Advanced Renal Cell Carcinoma (BeST) trial, evaluating the efficacy of different combinations of Nexavar, bevacizumab and temsirolimus for patients with advanced kidney cancer. Planned enrollment is for approximately 360 patients. The primary endpoint of the study is progression-free survival. Secondary endpoints include safety, overall survival as assessed by the Kaplan-Meier method, number and percentage of patients with stable disease at 6 months and objective response rate.

Phase 2 Trial. In June 2005, we and Bayer initiated a Phase 2 clinical trial comparing Nexavar to interferon, or IFN, in 189 patients who had no prior systemic therapy. In June 2007 results were presented that indicated PFS was comparable for patients who received either Nexavar or IFN. Median PFS was 5.6 months and 5.7 months, respectively, for IFN- and Nexavar-treated patients.

Non-Small Cell Lung Cancer Program

Phase 3 Trial. In June 2009, enrollment completed in a pivotal randomized, double-blind placebo-controlled trial in select locations outside the United States of approximately 900 patients with Stage IIIb-IV non-small cell lung cancer, or NSCLC, who have not received prior systemic anticancer treatment. In this trial, known as NSCLC Research Experience Utilizing Sorafenib (NExUS), patients are receiving gemcitabine and cisplatin in combination with Nexavar or a placebo. The primary endpoint of the study is overall survival. Secondary endpoints include progression-free survival, adverse event collection, patient-reported outcome and biomarker analysis.

Phase 3 Trial. In June 2009, we and Bayer began enrolling patients in an international randomized, double-blind placebo-controlled Phase 3 trial to evaluate Nexavar tablets in patients with relapsed or refractory advanced predominantly non-squamous NSCLC who have failed two or three previous treatments. This 3rd/4th line study is known as the monotherapy administration of sorafenib in patients with NSCLC (MISSION). Planned enrollment is for approximately 850 patients. The primary endpoint of the study is overall survival. Secondary endpoints include progression-free survival, disease control rate, overall response rate, time to progression and patient-reported outcome.

Phase 3 Trial. In February 2006, we and Bayer initiated a randomized, double-blind, placebo-controlled pivotal clinical trial, called Evaluation of Sorafenib, Carboplatin And Paclitaxel Efficacy (ESCAPE), studying Nexavar administered in combination with the chemotherapeutic agents carboplatin and paclitaxel in patients with NSCLC. This multicenter study of approximately 900 patients compared Nexavar administered in combination with these two agents to treatment with just the two agents alone. In February 2008, this clinical trial was stopped early following a planned interim analysis when an independent DMC concluded that the study would not meet its primary endpoint of improved overall survival.

Thyroid Cancer Program

Phase 3 Trial. In October 2009, we and Bayer began enrolling patients in an international Phase 3 trial to evaluate Nexavar tablets for the treatment of patients with radioactive iodine-refractory, locally advanced or metastatic differentiated thyroid cancer. The trial design called the Study of Sorafenib in Locally Advanced or Metastatic Patients with Radioactive Iodine Refractory Thyroid Cancer (DECISION), will enroll approximately 400 patients with locally advanced or metastatic, radioactive iodine-refractory, differentiated thyroid cancer (papillary, follicular and Hurthle cell) who have received no prior systemic therapy. The primary endpoint of the study is progression-free survival. Secondary endpoints include overall survival, time to progression, disease control rate, overall response rate and duration of response.

Breast Cancer Program

In 2007, we and Bayer launched a broad, multinational Phase 2 clinical trial program in advanced breast cancer known as Trials to Investigate the Effects of Sorafenib in Breast Cancer (TIES). The four clinical trials in the TIES program are screening studies intended to provide information that will be used to design a Phase 3 program. The TIES program involves a number of different drug combinations with Nexavar and encompasses various treatment settings.

In December 2009, we presented the results from two collaborative group-sponsored randomized, double-blind, placebo-controlled Phase 2 trials. The first study evaluated Nexavar in combination with the oral chemotherapeutic agent capecitabine in 229 patients. These patients had locally advanced or metastatic HER-2 negative breast cancer and had received no more than one prior chemotherapy in this setting. The trial met its primary endpoint, demonstrating that median progression-free survival was extended in patients treated with Nexavar and capecitabine compared to patients receiving capecitabine and placebo. The second study evaluated Nexavar in combination with the chemotherapeutic agent paclitaxel in 237 patients. These patients had locally recurrent or metastatic HER-2 negative breast cancer and had not received prior chemotherapy in this setting. While this trial did not meet its primary endpoint, the results demonstrated a positive trend towards improvement of progression-free survival in the Nexavar treatment group with no new toxicities observed and adverse events were clinically manageable.

The TIES program includes two additional randomized, placebo-controlled Phase 2 trials — one evaluating Nexavar plus gemcitabine or capecitabine in the first- or second-line setting following progression on bevacizumab, and the second trial evaluating Nexavar plus docetaxel and/or letrozole in the first-line setting. Planned enrollment in these trials is approximately 220 patients each. The primary endpoint of both these studies is progression-free survival. Secondary endpoints include overall survival, time to progression and other measures of safety and efficacy.

Early/Mid Stage Clinical Development

With Bayer, we have multiple ongoing and planned studies evaluating Nexavar as a single agent and in combination with other anti-cancer agents in tumors such as ovarian, advanced colorectal and other cancers. Based on the results of these ongoing trials, we plan to identify additional potential registration paths for Nexavar.

Carfilzomib

We are developing carfilzomib, a next-generation, selective proteasome inhibitor, as a cancer treatment. The proteasome is a protein complex that exists in all cells, both healthy and cancerous. The proteasome controls the turnover of proteins in cells in a regulated manner, but cancer cells are more susceptible to cell death when the proteasome is inhibited. Carfilzomib is a novel small molecule, belonging to a class known as peptide ketoepoxides, and is designed to inhibit the proteasome and enable sustained suppression of protein degradation in tumor cells. Carfilzomib is currently in multiple clinical trials listed below.

Multiple Myeloma Program

We are conducting multiple clinical trials evaluating carfilzomib as a monotherapy in relapsed and/or refractory multiple myeloma patients and in combination with other anticancer agents and chemotherapies. Multiple myeloma is the second most common hematologic cancer and results from an abnormality of plasma cells, usually in the bone marrow.

Phase 2b Trial. In December 2009, we presented early safety data results from an ongoing pivotal Phase 2b trial, known as the "003-A1" trial. The primary endpoint of the study was overall response rate. Results demonstrated carfilzomib was well-tolerated in heavily pre-treated relapsed and refractory multiple myeloma patients and could be administered at a full dose over prolonged periods of time, even in a very sick patient population for whom all available treatment options have been exhausted and who have multiple comorbidities. Enrollment consisted of 269 patients who had received prior treatment with bortezomib and either thalidomide or lenalidomide and were unresponsive to their last treatment. The full results of the study are expected in the second half of 2010 and may support submission of a New Drug Application (NDA) with the FDA by year-end 2010, although additional trials may be required before any NDA submission.

Phase 2 Trial. In December 2009, we also presented data from an ongoing study, known as the "004" trial. The primary endpoint was overall response rate and secondary endpoints included time to progression, duration of response, overall survival and safety. Results demonstrated promising overall response rates when carfilzomib was administered as a single agent in patients with relapsed and/or refractory multiple myeloma both in bortezomib treated and naïve patients.

Phase 1b/2 Trial. In December 2009, we presented interim data from a Phase 1b/2 combination study, known as the "006" trial, of carfilzomib with lenalidomide and dexamethasone in patients with relapsed multiple myeloma. The primary endpoint of the study was to evaluate safety and maximum tolerated dose. Results demonstrated the achievement of the safe combination of full dose carfilzomib with full dose lenalidomide and low dose once weekly dexamethasone.

Phase 3 Trial. In January 2010, we reached an agreement with the FDA on a Special Protocol Assessment (SPA) for a pivotal Phase 3 international randomized, open-label trial, also known as the "009" trial. An SPA is an agreement with the FDA on the design and planned analysis for a clinical trial which is intended to form the basis for a marketing application and it may only be changed through a written agreement between the sponsor and the FDA, or if the FDA becomes aware of new public health concerns. This current trial is designed to evaluate the efficacy of carfilzomib in combination with lenalidomide and low dose dexamethasone, versus lenalidomide and low dose dexamethasone alone. The trial, expected to begin in the first half of 2010, is expected to enroll approximately 700 patients with relapsed multiple myeloma following treatment with one to three prior regimens. The primary endpoint of the study is progression-free survival.

ONX 0801

ONX 0801 is a novel targeted oncology compound in Phase 1 clinical development that is designed to combine two proven approaches to improve outcomes for cancer patients by selectively targeting tumor cells through the alpha-folate receptor, which is overexpressed in a number of tumor types, and inhibiting thymidylate synthase (TS), a key enzyme responsible for cell growth and division. ONX 0801 targets malignant cells that overexpress the alpha-folate receptor, which is located on the cell's surface. ONX 0801 differs from currently marketed TS inhibitors due to its selective tumor cell-specific uptake by the alpha-folate receptor. The alpha-folate receptor is overexpressed in a number of tumor types, including ovarian cancer, lung cancer, breast cancer and colorectal cancer. In September 2009, we initiated Phase 1 studies of ONX 0801 in advanced solid tumors. This open-label, dose-finding study will evaluate the safety and pharmacokinetics of ONX 0801 and generally inform with regard to efficacy in patients with advanced solid tumors. We obtained worldwide product development and commercialization rights to ONX 0801 through a development and license agreement with BTG International Limited, or BTG.

ONX 0912

We are developing ONX 0912, an oral proteasome inhibitor based on similar novel chemistry as that applied in carfilzomib development. ONX 0912 has demonstrated preclinical anti-tumor activity and a broad therapeutic window in preclinical models. In 2009 we filed an Investigational New Drug application (IND) with the FDA that has been accepted. Phase 1 clinical testing in hematologic and solid tumors is expected to begin in 2010.

Product Candidate — Earlier Stage Pipeline

ONX 0914

We are developing ONX 0914 to be an inhibitor of the immunoproteasome, with minimal cross-reactivity for the constitutive proteasome. Recent evidence suggests that the immunoproteasome regulates the production of several inflammatory cytokines, including Tumor Necrosis Factor- α (TNF- α), Interleukin-6 (IL-6), IL-17, and IL-23. In preclinical models of rheumatoid arthritis and lupus, ONX 0914 blocked progression of these diseases at well tolerated doses. We are conducting preclinical studies to evaluate the potential clinical applications of ONX 0914 in the treatment of autoimmune disorders, such as rheumatoid arthritis, inflammatory bowel disease and lupus.

Collaboration, Licensing, Option Agreements

Collaboration Agreement with Bayer

Effective February 1994, we executed a collaboration agreement with Bayer to discover, develop and market compounds that inhibit the function, or modulate the activity, of the RAS signaling pathway to treat cancer and other diseases. We concluded collaborative research under this agreement in 1999, and based on this research, a product development candidate, Nexavar, was identified. Bayer paid all the costs of research and preclinical development of Nexavar until the IND was filed in May 2000. Under our collaboration agreement, we are currently funding 50% of mutually agreed development costs worldwide, excluding Japan. In all foreign countries, except Japan, Bayer first receives a portion of product revenues to repay Bayer for its foreign commercialization infrastructure, after which we receive 50% of net profits on sales of Nexavar. Bayer is funding 100% of development costs in Japan and pays us a single-digit royalty on Nexavar sales in Japan. At any time during product development, either company may terminate its participation in development costs, in which case the terminating party would retain rights to the product on a royalty-bearing basis. If we do not continue to bear 50% of product development costs, Bayer would retain exclusive, worldwide rights to Nexavar and would pay royalties to us based on net sales.

In March 2006, we and Bayer entered into a co-promotion agreement to co-promote Nexavar in the United States. The co-promotion agreement amends and generally supersedes those provisions of the 1994 collaboration agreement that relate to the co-promotion of Nexavar in the United States. Outside of the United States, the terms of the collaboration agreement continue to govern. Under the terms of the co-promotion agreement and consistent with the collaboration agreement, we and Bayer share equally in the profits or losses of Nexavar in the United States. If for any reason we do not continue to co-promote in the United States, but continue to co-fund development worldwide (excluding Japan), Bayer would first receive a portion of the product revenues to repay

Bayer for its commercialization infrastructure, before determining our share of profits and losses in the United States.

Collaboration Agreement with Pfizer

In May 1995, we entered into a research and development collaboration agreement with Warner-Lambert Company, now a subsidiary of Pfizer Inc., or Pfizer, to discover and commercialize small molecule drugs that restore control of, or otherwise intervene in, the misregulated cell cycle in tumor cells. Under this agreement, we developed screening tests, or assays, for jointly selected targets, and transferred these assays to Pfizer for screening of their compound library. The discovery research term ended in August 2001. Pfizer is responsible for subsequent medicinal chemistry, preclinical and clinical development, regulatory filings, manufacture and sale of any approved collaboration compounds. We are entitled to receive payments upon achievement of certain clinical development milestones and registration of any resulting products and are entitled to receive royalties on worldwide sales. Pfizer identified a small molecule lead compound, PD 0332991, an inhibitor of cyclin-dependent kinase 4/6 (CDK 4/6), and began clinical testing in September 2004. In December 2009, we earned a \$1.0 million milestone payment from Pfizer upon initiation of a Phase 2 trial for breast cancer. To date, we have earned \$1.5 million in milestone payments relating to this drug candidate, which we refer to as a cell cycle kinase inhibitor.

Licensing Agreement with BTG

In November 2008, we licensed a novel targeted oncology compound, ONX 0801, from BTG. Under the terms of the agreement, we obtained a worldwide license for ONX 0801 and its related patents. We also received exclusive worldwide marketing rights and are responsible for all product development and commercialization activities. We paid BTG a \$13.0 million upfront payment in 2008 and a \$7.0 million milestone payment in 2009. We may be required to make payments of up to an additional \$65.0 million upon the attainment of certain global development and regulatory milestones, plus additional milestone payments upon the achievement of certain marketing approvals and commercial milestones. We also are required to pay royalties to BTG on any future product sales.

Option Agreement with S*BIO

In December 2008, we entered into a development collaboration, option and license agreement with S*BIO Pte Ltd, or S*BIO, a Singapore-based company, pursuant to which we acquired options to license rights to each of SB1518 (designated by Onyx as ONX 0803) and SB1578 (designated by Onyx as ONX 0805). Under the terms of the agreement, we were granted options which, if we exercise them, would give us rights to exclusively develop and commercialize ONX 0803 and/or ONX 0805 for all potential indications in the United States, Canada and Europe. Under this agreement, S*BIO will retain responsibility for all development costs prior to the option exercise. After the exercise of our option to license rights to either compound, we are required to assume development costs for the U.S., Canada and Europe subject to S*BIO's option to fund a portion of the development costs in return for enhanced royalties on any future product sales. Upon the exercise of our option of either compound, S*BIO is entitled to receive a one-time option fee, milestone payments upon achievement of certain development and sales levels and royalties on any future product sales. Under the terms of the agreement, in December 2008 we made a \$25.0 million payment to S*BIO, including an up-front payment and an equity investment.

ONX 0803 and ONX 0805

ONX 0803 is an orally available, potent and selective inhibitor of JAK2 that has been designed to suppress over-activity of mutant JAK2. S*BIO is conducting trials for ONX 0803 in multiple Phase 1 studies. In February 2010, S*BIO initiated two Phase 2 trials using ONX 0803 in myelofibrosis. ONX 0805 is a JAK2 inhibitor and is in preclinical development. Under normal circumstances, activation of JAK2 stimulates blood cell production. Genetic mutations in the JAK2 enzyme result in up-regulated activity and are implicated in myeloproliferative diseases, conditions characterized by an overproduction of blood cells in the bone marrow. The conditions where JAK2 mutations are most common include polycythemia vera, essential thrombocytopenia and primary myelofibrosis. The JAK2 signaling pathway has been shown to play a critical role in the proliferation of certain types of cancer cells and in the anti-inflammatory pathway, suggesting JAK2 inhibitors may also be able to play a role in the treatment of solid tumors and other diseases such as rheumatoid arthritis.

Acquisition of Proteolix

In November 2009, we acquired Proteolix under the terms of an agreement and plan of merger (the Merger Agreement), which was entered into in October 2009. Proteolix focused primarily on the discovery and development of novel therapies, including carfilzomib, that target the proteasome for the treatment of hematological malignancies, solid tumors and autoimmune disorders. This acquisition has provided us with an opportunity to expand into the hematological malignancies market, as well as, expand our mid-to-late stage development portfolio.

The aggregate consideration paid by us to former Proteolix stockholders at closing consisted of \$276.0 million in cash, of which \$27.6 million was placed in an escrow account and will be held until December 31, 2010 to secure the indemnification rights of Onyx and other indemnitees with respect to certain matters. In addition, we may be required to pay up to an additional \$575.0 million in earnout payments upon the receipt of certain regulatory approvals and the satisfaction of other milestones. Of this amount, we estimate the payments to be as follows:

- \$40.0 million is expected to be paid in 2010, 180 days after completion of enrollment in an ongoing pivotal Phase 2b clinical study involving relapsed and refractory multiple myeloma patients, known as the "003-A1" trial. Upon achievement of the first milestone, \$4.0 million of the first earnout payment will also be contributed to the escrow account.
- \$535.0 million of earnout payments will become payable in up to four additional installments, upon
 the achievement of regulatory approvals in the U.S. and Europe within pre-specified timeframes for
 carfilzomib, as follows:
 - \$170.0 million would be triggered by the achievement of accelerated marketing approval in the United States for relapsed/refractory multiple myeloma.
 - \$65.0 million would be triggered by marketing approval in the European Union for relapsed/refractory multiple myeloma.
 - \$150.0 million would be triggered by marketing approval in the United States for relapsed multiple myeloma.
 - \$150.0 million would be triggered by marketing approval for relapsed multiple myeloma in the European Union.

Under certain circumstances, including if we fail to satisfy regulatory approval-related diligence obligations under the Merger Agreement, we may be required to make one or more earnout payments even if the associated regulatory approvals are not received. Subject to the terms and conditions set forth in the Merger Agreement, Onyx may, in its sole discretion, make any of the earnout payments (with the exception of the first earnout payment) that become payable to former holders of Proteolix preferred stock in the form of cash, shares of Onyx common stock or a combination thereof.

Research and Development

A significant portion of our operating expenses relates to the development of Nexavar. We and Bayer share development expenses for Nexavar, except in Japan where Bayer is responsible for development costs of Nexavar. In 2009, our development staff was primarily focused on the clinical development of Nexavar and ONX 0801. With the acquisition of Proteolix, we gained internal research, preclinical and development capabilities related to carfilzomib and other proteasome inhibitors. We expect to continue to make significant product development investments; in 2010, those investments will be primarily for the clinical development of Nexavar, carfilzomib and ONX 0801, as well as for the development of ONX 0912 and ONX 0914. In addition, if we exercise our option for either ONX 0803 or ONX 0805, we are required to assume development costs for the U.S., Canada and Europe subject to S*BIO's option to fund a portion of the development costs in return for enhanced royalties on any future product sales.

For the years ended December 31, 2009, 2008 and 2007, our research and development costs were \$128.5 million, \$123.7 million and \$83.3 million, respectively, and are included in our research and development expense in our consolidated statements of operations for the years ended December 31, 2009, 2008 and 2007.

Marketing and Sales

Under our agreements with Bayer, we have co-promotion rights for Nexavar in the United States, where we and Bayer each have complementary sales, marketing and medical affairs capabilities with particular expertise in commercializing oncology products. We and Bayer each provide one-half of the field-based sales and medical affairs staffing in the United States. Individuals hired into this organization have significant experience relevant to the field of pharmaceuticals in general and to the specialty of oncology in particular. In addition, we and Bayer have added sales and medical staff that has experience in the specialty of hepatology, as it applies to the detection and treatment of liver cancer. We and Bayer have also established comprehensive patient support services to maximize patient access to Nexavar. This includes Resources for Expert Assistance and Care Hotline, or REACH, which provides a single point-of-contact for most patients. In addition, REACH helps link patients to specialty pharmacies for direct product distribution. Bayer currently has contracts with multiple specialty pharmacies that ship Nexavar directly to patients. NexConnect, another support program also established by Onyx and Bayer, provides patient education materials on Nexavar to help patients take an active role in their treatment. Under the collaboration agreement, outside the United States, Bayer is responsible for all commercial activities relating to Nexavar. Future commercialization of carfilzomib, ONX 0801, ONX 0912 and/or any of our other product candidates, if any receive marketing approval, would require us to make significant investments to build on our current marketing and sales capabilities.

Manufacturing

Under our collaboration agreement with Bayer, Bayer has the responsibility to manufacture and supply Nexavar for commercial requirements and to support clinical trials. To date, Bayer has manufactured sufficient drug supply to support the current needs of commercial activity and clinical trials in progress. We believe that Bayer has the capability to meet all future drug supply needs and meet the FDA and other regulatory agency requirements.

Under our license agreement with BTG, we are responsible for manufacturing ONX 0801. If we exercise our options under our agreement with S*BIO, S*BIO is responsible for supplying clinical and commercial quantities of drug product. If S*BIO fails to supply us, or if other specified events occur, we will have co-exclusive manufacturing rights (with S*BIO) to make and have made ONX 0803 and ONX 0805 for use and sale in the United States, Canada and Europe.

We do not have the experience nor the infrastructure to manufacture clinical materials or commercial products. We currently manufacture carfilzomib, ONX 0801, ONX 0912 and ONX 0914 through agreements with third-party contract manufacturers and at this time, we plan to continue with the use of third-party manufacturers on a commercial scale. In the future, we could consider developing in-house manufacturing capabilities, however, that would require the use of significant funds.

Intellectual Property

Patents and other intellectual property rights are crucial to our success. It is our policy to protect our intellectual property rights through available means, including filing patent and prosecuting applications in the United States and other countries. We also develop and protect confidential information and know-how, for example, we include restrictions regarding use and disclosure of our proprietary information in our contracts with third parties. We regularly enter into agreements with our employees, consultants, clinical investigators and scientific advisors to protect our confidential information and know-how. Together with our licensors, we also rely on trade secrets to protect our combined technology especially where we do not believe patent protection is appropriate or obtainable. It is also our policy to operate without infringing on, or misappropriating, the proprietary rights of others.

Intellectual Property Related to Nexavar

Patents and patent applications covering Nexavar are owned by Bayer. Those Nexavar patents that arose out of our collaboration agreement with Bayer are licensed to us, including two United States patents covering Nexavar. Both patents will expire January 12, 2020. These two patents are listed in the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations (Orange Book).

Bayer also has patents in several European countries covering Nexavar, which will expire in 2020. Bayer has other patents and patent applications pending worldwide that cover Nexavar alone or in combination with other drugs for treating cancer. Certain of these patents may be subject to possible patent-term extension, the entitlement to and the term of which cannot presently be calculated. In 2009, we became aware that a third-party had filed an opposition proceeding with the Chinese patent office to invalidate the patent that covers Nexavar. Unlike other countries, China has a heightened requirement for patentability, and specifically requires a detailed description of medical uses of a claimed drug, such as Nexavar. Bayer also has a patent in India the covers Nexavar. Cipla Limited, an Indian generic drug manufacturer, applied to the Drug Controller General of India (DCGI) for market approval for Nexavar, which Bayer sought to block based on its patent. Bayer sued the DCGI and Cipla Limited in the Delhi High Court requesting an injunction to bar the DCGI from granting Cipla Limited market authorization. The Court ruled against Bayer, stating that in India, unlike the U.S., there is no link between regulatory approval of a drug and its patent status. Bayer appealed, which it recently lost. Consequently, Bayer is reviewing its options, including appealing to the Indian Supreme court or asserting its patent, which is in an opposition brought by Cipla Limited. If Nexavar patents are invalidated, nullified, or otherwise held unenforceable in these other proceedings, we and Bayer could face increased competition, including by generic companies, prior to the normal expiration date of the Nexavar patents. Although Bayer intends to defend the patent and we believe that the Nexavar patents are valid, we cannot predict the final outcomes of these proceedings.

In addition to and separate from patent protection, Nexavar enjoys marketing exclusivity under the Orphan Drug Act of 1983, as amended, which was enacted to provide incentives to pharmaceutical companies who create treatments for rare diseases. It does so by granting seven years of exclusivity after approval of a drug in the rare disease, or "orphan" indication. During the seven year period, the FDA may not grant marketing authorization (*e.g.*, to a generic manufacturer) for the same drug for the orphan indication, but FDA may grant marketing authorization for the same drug in a common disease or other non-protected rare disease. Nexavar has orphan drug exclusivity until December 20, 2012 in advanced kidney cancer and until November 16, 2014 in unresectable liver cancer.

Nexavar also has a five-year period of new chemical entity exclusivity under the Drug Price Competition and Patent Term Restoration Act of 1984, commonly known as the Hatch-Waxman Act; this period expires December 20, 2010. The Hatch Waxman Act authorizes the FDA to approve Abbreviated New Drug Applications (ANDAs) for generic versions of innovative pharmaceuticals that were previously approved via a NDA. In an ANDA, the generic manufacturer is not required to prove safety and efficacy, but must demonstrate "bioequivalence" between its generic version and the NDA-approved drug. For a new chemical entity, another manufacturer cannot submit an ANDA until the five-year exclusivity period ends. There is an exception, however, for an ANDA filer that challenges patents listed in the Orange Book. Four years after FDA approval of the new chemical entity, a manufacturer who alleges that one or more of the Orange Book patents are invalid, unenforceable and/or not infringed may submit an ANDA for a generic version of the approved drug. This patent challenge is commonly known as a Paragraph IV certification. The owner of the Orange Book patents may then file a lawsuit against the ANDA filer to enforce its patents. If the lawsuit is filed in a timely fashion, the FDA is prohibited from approving the ANDA for thirty months after the patent owner's receipt of notice of the Paragraph IV certification if the certification is after the five year NCE. If the certification and patent infringement lawsuit is filed before the end of the five year NCE, then the FDA is prohibited from approving the ANDA until seven and one half years after the NDA approval unless prior to that date the Orange Book patents are found to be invalid, unenforceable and/or not infringed. This period can also be shortened or extended by a trial court judge hearing the patent challenge if a party to the litigation fails to cooperate reasonably in expediting the action. The period may also be shortened if the court enters final judgment that the patents are not infringed, invalid, or unenforceable. The first filer of a Paragraph IV certification may be entitled to a 180-day period of market exclusivity over all other generic manufacturers, which may encourage generic manufacturers to file ANDAs. In recent years, generic manufacturers have used Paragraph IV certifications extensively to challenge patents on a wide array of innovative pharmaceuticals, and we expect this trend to continue. In addition, generic companies have shown an increasing willingness to launch "at risk," i.e., after receiving ANDA approval but before final resolution of their patent challenge. Outside the United States, the legal doctrines and processes by which pharmaceutical patents can be challenged vary widely.

As of December 20, 2009, generic manufacturers were permitted to submit ANDAs seeking FDA authorization to manufacture and market generic versions of Nexavar that contained Paragraph IV certifications as to one or more of

the Orange Book-listed Nexavar patents. It is possible that one or more such ANDAs for Nexavar may have been submitted; however, Bayer and we may not learn about the ANDAs and any challenge to the Nexavar patents until receipt of a notice letter from a generic manufacturer that such an application has been filed. Upon notification of an ANDA filing for Nexavar, Bayer (as the owner of the Nexavar patents) may file a patent infringement lawsuit against each ANDA filer. If there are multiple ANDA filers, Bayer may be required to file multiple patent infringement lawsuits in multiple jurisdictions. Under our collaboration agreement with Bayer, we are responsible for sharing the costs incurred for such ANDA lawsuits. If one or more ANDAs are filed, we may need to spend significant resources to enforce and defend the Nexavar patents. Upon each timely filed ANDA lawsuit, the FDA will impose a stay on the approval of the corresponding ANDA, pending resolution of the lawsuit or the expiration of the stay period. If Bayer fails to timely file a lawsuit against an ANDA filer, that ANDA filer may not be subject to an FDA stay, and upon approval of the ANDA, the ANDA filer may elect to launch a generic version of Nexavar at the risk of a lawsuit and injunction. If Bayer timely commences lawsuits against ANDA filers for patent infringement, as we expect Bayer to do, the FDA cannot approve the ANDAs until seven and one-half years have elapsed from the date of Nexavar's initial approval (i.e., until June 20, 2013). This period of protection, referred to as the statutory litigation stay period, may end early however, in the event of an adverse court action, such as if Bayer were to lose a patent infringement case against an ANDA filer before the statutory litigation stay period expires (i.e., if the court finds both patents invalid, unenforceable or not infringed) or if Bayer fails to reasonably cooperate in expediting the litigation. On the other hand, if Bayer were to prevail in an infringement action against an ANDA filer, the ANDA with respect to such generic company cannot be approved until expiration of the patents held to be infringed.

Issued patents may be challenged by third parties, including competitors and generic companies, through litigation, nullity proceedings and the like. Patents covering Nexavar may be challenged and possibly invalidated in one or more countries, which could expose us and Bayer to generic competition prior to the normal expiration date of the Nexavar patents. In light of the increasingly aggressive challenges by generic companies to innovator intellectual property, we and Bayer are continually assessing and seeking to strengthen our patent estate for Nexavar around the world.

Intellectual Property Related to Carfilzomib and Other Proteolix Assets

We own a patent portfolio covering carfilzomib, including 3 United States patents and 6 United States patent applications, which will begin to expire in 2025 without patent term extension, together with their foreign counterparts. We also own 6 United States patent applications covering ONX 0912 and 0914, which if granted, will begin to expire in 2025, without patent term extension, together with their foreign counterparts.

Intellectual Property Related to ONX 0801, 0803 and 0805

In the United States, ONX 0801 is covered by an issued patent, while a corresponding European application is pending. The United States patent expires in 2023, and the European patent application, if granted, would also expire in 2023. Both may be entitled to term extensions. There are patent applications pending in the United States and European Union that cover ONX 0803 and ONX 0805 and, if granted, will expire in 2026. Both may be entitled to term extensions.

Other Intellectual Property

In addition to the patents and patent applications discussed above, as of December 31, 2009, we owned or had licensed rights to 76 United States patents and 39 United States patent applications and, generally, the foreign counterparts of these filings. Most of these patents or patent applications cover protein targets used to identify product candidates during the research phase of our collaborative agreements with Pfizer or Bayer, or aspects of our discontinued therapeutic virus program.

Competition

We are engaged in a rapidly changing and highly competitive field. We are seeking to develop and market product candidates that will compete with other products and therapies that currently exist or are being developed. Many

other companies, both large pharmaceutical companies and biotechnology companies, are actively seeking to develop oncology products, including those that have disease targets similar to those we are pursuing. Some of these competitive product candidates are in clinical trials and others are approved. Many of these companies with competitive products and/or product candidates have greater capital resources than we do, which provide them with potentially greater flexibility in the development and marketing of their products. Most pharmaceutical companies devote significant operating resources to the research and development of new oncology drugs or additional indications for oncology drugs that are already marketed. We expect these trends to continue.

Nexavar for unresectable liver cancer. Currently, there are no other systemic therapies approved for unresectable liver cancer. However, there are several other therapies in development, including Pfizer's Sutent and Bristol-Myers Squibb's brivanib. In addition, there are many existing approaches used in the treatment of unresectable liver cancer including alcohol injection, radiofrequency ablation, chemoembolization, cryoablation and radiation therapy.

Nexavar for advanced kidney cancer. Currently, five other novel agents besides Nexavar have been approved for the treatment of advanced kidney cancer — Sutent, Torisel, Avastin, Afinitor and Votrient. Sutent, a multiple kinase inhibitor, was approved by the FDA in January 2006 to treat patients with advanced kidney cancer. In July 2006, Sutent was approved by European regulators to treat patients with advanced kidney cancer who had failed a cytokine-based regimen. In January 2007, European regulators approved Sutent as a first-line treatment for patients with advanced kidney cancer. Torisel, an mTOR inhibitor, was approved by the FDA in May 2007 to treat patients with advanced kidney cancer. European regulators approved Torisel in November 2007 for treatment of poor-risk patients with advanced kidney cancer. In December 2007 Avastin was approved by European regulators for the first-line treatment of patients with advanced kidney cancer in combination with interferon. In the third quarter of 2008, a supplemental Biologics Application for Avastin was filed with the FDA. In March 2009, Afinitor was approved by the FDA to treat patients with advanced RCC, a form of kidney cancer, after failure of treatment with Sutent or Nexavar. In August 2009, European regulators approved Afinitor for the treatment of patients with RCC whose disease progressed on or after treatment with VEGF-targeted therapy. In October 2009, Votrient, an angiogenesis inhibitor, was approved by the FDA to treat patients with advanced RCC. Other products in development for advanced kidney cancer include Novartis's everolimus, an mTOR inhibitor, and GlaxoSmithKline's pazopanib, a multiple kinase inhibitor, among others.

Carfilzomib. Currently, there are three agents that have been approved for the treatment of patients with multiple myeloma — Velcade and two Immunomodulatory Drugs (Imids), Revlimid and Thalomid, that could be used with or instead of carfilzomib if it is approved for marketing. Velcade was the first proteasome inhibitor, and based on Phase 2 data, the FDA granted accelerated approval in May 2003 to Millennium Pharmaceuticals to market Velcade for the treatment of patients with relapsed and refractory multiple myeloma who have received at least two prior therapies and have demonstrated disease progression on their most recent therapy. In March 2005, the FDA also approved Velcade for the treatment of patients with multiple myeloma who have received at least one prior therapy. Revlimid is an oral Imid approved by the FDA in June 2006 in combination with dexamethasone for the treatment of patients with multiple myeloma who have received at least one prior therapy. Thalomid is both an Imid and antiangiogenic drug that was approved by the FDA in May 2006 for the treatment of patients with newly diagnosed multiple myeloma. Thalomid was granted full marketing authorization by the EC in April 2008 for use in combination with melphalan and prednisone as a treatment for patients with newly diagnosed multiple myeloma. In addition to the above, there are other potentially-competitive therapies that are in clinical development for multiple myeloma. We anticipate our first marketing application will be in patients who have relapsed and refractory multiple myeloma and who have already received and progressed on or after Velcade and at least one of the Imids.

Government Regulation

Source: ONYX PHARMACEUTICALS INC, 10-K, February 23, 2010

Regulation by government authorities in the United States, individual states and other countries will be a significant factor in the development, manufacturing and marketing of any products that we may develop. Pharmaceutical companies must comply with comprehensive regulation by the FDA, the Centers for Medicare and Medicaid Services and other regulatory agencies in the United States and comparable authorities in other countries.

FDA Regulation

We must obtain regulatory approvals by FDA and foreign government agencies prior to clinical testing and commercialization of any product and for post-approval clinical studies for additional indications in approved drugs. This is also true internationally. We anticipate that any product candidate will be subject to rigorous preclinical and clinical testing and pre-market approval procedures by the FDA and similar health authorities in foreign countries. Various federal statutes and regulations also govern or influence the preclinical and clinical testing, record-keeping, approval, labeling, manufacture, quality, shipping, distribution, storage, marketing and promotion, export and reimbursement of products and product candidates.

The steps ordinarily required before a drug or biological product may be marketed in the United States include:

- preclinical studies;
- the submission to the FDA of an IND that must become effective before human clinical trials may commence;
- adequate and well-controlled human clinical trials to establish the safety and efficacy of the product candidate;
- the submission of an NDA to the FDA; and
- FDA approval of the NDA, including inspection and approval of the product manufacturing facility.

Preclinical trials involve laboratory evaluation of product candidate chemistry, formulation and stability, as well as animal studies to assess the potential safety and efficacy of each product candidate. The results of preclinical trials are submitted to the FDA as part of an IND and are reviewed by the FDA before the commencement of clinical trials. Unless the FDA objects to an IND, the IND will become effective 30 days following its receipt by the FDA. Submission of an IND may not result in FDA clearance to commence clinical trials, and the FDA's failure to object to an IND does not guarantee FDA approval of a marketing application.

Clinical trials involve the administration of the product candidate to humans under the supervision of a qualified principal investigator. In the United States, clinical trials must be conducted in accordance with current Good Clinical Practices under protocols submitted to the FDA as part of the IND. In addition, each clinical trial must be approved and conducted under the auspices of an Institutional Review Board, or IRB, and with the patient's informed consent. European and Asian countries have similar regulations.

The goal of Phase 1 clinical trials is to establish initial data about safety and tolerability of the product candidate in humans. The investigators seek to evaluate the effects of various dosages and to establish an optimal dosage level and schedule. The goal of Phase 2 clinical trials is to provide evidence about the desired therapeutic efficacy of the product candidate in limited studies with small numbers of carefully selected subjects. Investigators also gather additional safety data. Phase 3 clinical trials consist of expanded, large-scale, multi-center studies in the target patient population. This phase further tests the product's effectiveness, monitors side effects, and, in some cases, compares the product's effects to a standard treatment, if one is already available. Phase 3 trials are designed to more rigorously test the efficacy of a product candidate and are normally randomized and double-blinded. Phase 3 trials are typically monitored by an independent DMC which periodically review data as a trial progresses. A DMC may recommend that a trial be stopped before completion for a number of reasons including safety concerns, patient benefit or futility.

Data obtained from this development program are submitted as an NDA to the FDA and possibly to corresponding agencies in other countries for review, and requires agency approval prior to marketing in the relevant country. Extensive regulations define the form, content and methods of gathering, compiling and analyzing the product candidate's safety and efficacy data.

The process of obtaining regulatory approval can be costly, time consuming and subject to unanticipated delays. Regulatory agencies may refuse to approve an application if it believes that applicable regulatory criteria are not satisfied and may also require additional testing for safety and efficacy and/or post-marketing surveillance or other ongoing requirements for post-marketing studies. In some instances, regulatory approval may be granted with the condition that confirmatory Phase 4 clinical trials are carried out, if these trials do not confirm the results of previous

studies, regulatory approval for marketing may be withdrawn. Moreover, each regulatory approval of a product is limited to specific indications. The FDA or other regulatory authorities may approve only limited label information for the product. The label information describes the indications and methods of use for which the product is authorized, may include Risk Evaluation Management Strategies and, if overly restrictive, may limit a sponsor's ability to successfully market the product. Regulatory agencies routinely revise or issue new regulations, which can affect and delay regulatory approval of product candidates.

In addition to the FDA's internal review, the FDA may request the Oncology Drugs Advisory Committee, or ODAC, to review and evaluate data concerning the safety and effectiveness of marketed and investigational human drug products for use in the treatment of cancer. The ODAC subsequently makes non-binding recommendations to the FDA about the advisability of approving new medications to treat cancer. The ODAC consists of a core of 13 voting members from among authorities knowledgeable in the fields of general oncology, pediatric oncology, hematologic oncology, immunologic oncology, biostatistics and other related professions.

For Nexavar, we rely on Bayer to manage communications with regulatory agencies, including filing new drug applications, submitting promotional materials and generally directing the regulatory processes. We also rely on Bayer to complete the necessary government reporting obligations such as price calculation reporting and clinical study disclosures to federal and state regulatory agencies. If we have disagreements as to ownership of clinical trial results or regulatory approvals, and the FDA refuses to recognize Onyx as holding, or having access to, the regulatory approvals necessary to commercialize Nexavar, we may experience delays in or be precluded from marketing or further developing Nexavar.

For carfilzomib, we are responsible for managing communications with regulatory agencies, including filing investigational new drug applications, filing new drug applications, submission of promotional materials and generally directing the regulatory processes. We have limited experience directing such activities and may not be successful with our planned development strategies, on the planned timelines, or at all. Even if carfilzomib or any other product candidate is designated for "fast track" or "priority review" status or if we seek approval under accelerated approval (Subpart H) regulations, such designation or approval pathway does not necessarily mean a faster development process or regulatory review process or necessarily confer any advantage with respect to approval compared to conventional FDA procedures. Accelerated development and approval procedures will only be available if the indications for which we are developing products remain unmet medical needs and if our clinical trial results support use of surrogate endpoints, respectively. Even if these accelerated development or approval mechanisms are available to us, depending on the results of clinical trials, we may elect to follow the more traditional approval processes for strategic and marketing reasons, since drugs approved under accelerated approval procedures are more likely to be subjected to post-approval requirements for clinical studies to provide confirmatory evidence that the drugs are safe and effective. If we fail to conduct any such required post-approval studies or if the studies fail to verify that any of our product candidates are safe and effective, our FDA approval could be revoked. It can be difficult, time-consuming and expensive to enroll patients in such clinical trials because physicians and patients are less likely to participate in a clinical trial to receive a drug that is already commercially available. Drugs approved under accelerated approval procedures also require regulatory pre-approval of promotional materials which may delay or otherwise hinder commercialization efforts.

Some of our product candidates may be based on new technologies, which may affect our ability or the time we require to obtain necessary regulatory approvals. The regulatory requirements governing these types of products may be more rigorous than for conventional products. As a result, we may experience a longer development or regulatory process in connection with any products (e.g. carfilzomib) that we develop based on these new technologies or new therapeutic approaches.

Pharmaceutical manufacturing processes must conform to current good manufacturing practices, or cGMPs. Manufacturers, including a drug sponsor's third party contract manufacturers, must expend time, money and effort in the areas of production, quality control and quality assurance, including compliance with stringent record-keeping requirements. Manufacturing establishments are subject to periodic inspections by the FDA or other health authorities, in order to assess, among other things, compliance with cGMP. Before approval of the initiation of commercial manufacturing processes, the FDA will usually perform a preapproval inspection of the facility to determine its compliance with cGMP and other rules and regulations. In addition, foreign manufacturing

establishments must also comply with cGMPs in order to supply products for use in the United States, and are subject to periodic inspection by the FDA or by regulatory authorities in certain countries under reciprocal agreements with the FDA. Manufacturing processes for pharmaceutical products are highly regulated and regulators may not certify or may shut down manufacturing facilities that they believe do not comply.

We also must comply with clinical trial and post-approval safety and adverse reporting requirements. Adverse events related to our products must be reported to the FDA in accordance with regulatory timelines based on their severity and expectedness. Failure to make timely safety reports and to establish and maintain related records could result in withdrawal of marketing authorization.

Violations of regulatory requirements, at any stage, including after approval, may result in various adverse consequences, including the delay by a regulatory agency in approving or refusal to approve a product, withdrawal or recall of an approved product from the market, other voluntary agency-initiated action that could delay further development or marketing, as well as the imposition of criminal penalties against the manufacturer and NDA holder.

Other Regulations

Pharmaceutical companies, including Onyx, are subject to various federal and state laws pertaining to healthcare "fraud and abuse," including anti-kickback and false claims laws. The Federal Anti-kickback Statute makes it illegal for any person, including a prescription drug manufacturer, or a party acting on its behalf, to knowingly and willfully solicit, offer, receive or pay any remuneration, directly or indirectly, in exchange for, or to induce, the referral of business, including the purchase, order or prescription of a particular drug, for which payment may be made under federal healthcare programs such as Medicare and Medicaid. Some of the state prohibitions apply to referral of patients for healthcare services reimbursed by any source, not only the Medicare and Medicaid programs.

In the course of practicing medicine, physicians may legally prescribe FDA approved drugs for an indication that has not been approved by the FDA and which, therefore, is not described in the product's approved labeling — so-called "off-label use." The FDA does not ordinarily regulate the behavior of physicians in their choice of treatments. The FDA and other governmental agencies do, however, restrict communications on the subject of off-label use by a manufacturer or those acting on behalf of a manufacturer. Companies may not promote FDA-approved drugs for off-label uses. The FDA has not approved the use of Nexavar for the treatment of any diseases other than advanced kidney cancer and unresectable liver cancer, and neither we nor Bayer may market Nexavar for any unapproved use. The FDA and other governmental agencies do permit a manufacturer (and those acting on its behalf) to engage in some limited, non-misleading, non-promotional exchanges of scientific information regarding unapproved indications. The United States False Claims Act prohibits, among other things, anyone from knowingly and willfully presenting, or causing to be presented for payment to third party payers (including Medicare and Medicaid) claims for reimbursed drugs or services that are false or fraudulent, claims for items or services not provided as claimed or claims for medically unnecessary items or services. Violations of fraud and abuse laws may be punishable by criminal and/or civil sanctions, including imprisonment, fines and civil monetary penalties, as well as possible exclusion from federal health care programs (including Medicare and Medicaid). In addition, under this and other applicable laws, such as the Food, Drug and Cosmetic Act, there is an ability for private individuals to bring similar actions. Further, there are an increasing number of state laws that require manufacturers to make reports to states on pricing and marketing information. Many of these laws contain ambiguities as to what is required to comply with the law.

Increased industry trends in U.S. regulatory scrutiny of promotional activity by the FDA, Department of Justice, Office of Inspector General and Offices of State Attorney Generals resulting from healthcare fraud and abuse, including, but not limited to, violations of the Food, Drug and Cosmetic Act, False Claims Act and Federal Anti-kickback Statute, have led to significant penalties for those pharmaceutical companies alleged of non-compliance. If we or Bayer fail to comply with applicable regulatory requirements, including strict regulation of marketing and sales activities, we could be subject to penalties, including fines, suspensions of regulatory approval, product recall, seizure of products and criminal prosecution.

We have adopted the voluntary Code on Interactions with Healthcare Professionals, or PhRMA Code, promulgated by the Pharmaceutical Research and Manufacturers of America, including its 2009 revisions. The PhRMA Code

addresses interactions with respect to marketed products and related pre- and post-launch activities and reinforces the intention that interactions with healthcare professionals are professional exchanges designed to benefit patients and to enhance the practice of medicine.

We are subject to various laws and regulations regarding laboratory practices and the experimental use of animals in connection with our research. In each of these areas, as above, the FDA and other regulatory authorities have broad regulatory and enforcement powers, including the ability to suspend or delay issuance of approvals, seize or recall products, withdraw approvals, enjoin violations and institute criminal prosecution, any one or more of which could have a material adverse effect upon our business, financial condition and results of operations.

We must comply with regulations under the Occupational Safety and Health Act, the Environmental Protection Act, the Toxic Substances Control Act and other federal, state and local regulations. We are subject to federal, state and local laws and regulations governing the use, generation, manufacture, storage, air emission, effluent discharge, handling and disposal of certain hazardous or potentially hazardous materials. We may be required to incur significant costs to comply with environmental and health and safety regulations in the future. Our research and development involves the controlled use of hazardous materials, including, but not limited to, certain hazardous chemicals and radioactive materials.

Our activities are also potentially subject to federal and state consumer protection and unfair competition laws. We are also subject to the U.S. Foreign Corrupt Practices Act, or the FCPA, which prohibits companies and individuals from engaging in specified activities to obtain or retain business or to influence a person working in an official capacity. Under the FCPA, it is illegal to pay, offer to pay, or authorize the payment of anything of value to any foreign government official, governmental staff members, political party or political candidate in an attempt to obtain or retain business or to otherwise influence a person working in an official capacity. In addition, federal and state laws protect the confidentiality of certain health information, in particular, individually identifiable information, and restrict the use and disclosure of that information. At the federal level, the Department of Health and Human Services promulgated health information privacy and security rules under the Health Insurance Portability and Accountability Act of 1996. In addition, many state laws apply to the use and disclosure of health information.

Employees

We believe our success is dependent on our ability to attract and retain qualified employees. As of December 31, 2009, we had 271 full-time employees, of whom 52 hold Ph.D., M.D. or Pharm.D. degrees. Of our employees, 99 are in research and development, 100 are in operations, sales and marketing and 72 are in finance, administration and corporate development. No employee is represented by a labor union and we believe our employee relations to be good.

Available Information

Our website is located at http://www.onyx-pharm.com. However, information found on our website is not incorporated by reference into this Annual Report on Form 10-K. We make our SEC filings available free of charge on or through our website, including our Annual Report on Form 10-K, quarterly interim reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Further, a copy of this Annual Report on Form 10-K is located at the Securities and Exchange Commission's Public Reference Rooms at 100 F Street, N.E., Washington, D. C. 20549. Information on the operation of the Public Reference Room can be obtained by calling the Securities and Exchange Commission at 1-800-SEC-0330. The Securities and Exchange Commission maintains a website that contains reports, proxy and information statements and other information regarding our filings at http://www.sec.gov.

Code of Conduct

In 2003, we adopted a code of conduct that applies to our principal officers, directors and employees. We have posted the text of our code of conduct on our website at http://www.onyx-pharm.com in connection with "Investors" materials under "Corporate Governance." However, information found on our website is not incorporated by reference into this report. In addition, we intend to promptly disclose (1) the nature of any amendment to our code of

conduct that applies to our principal executive officer, principal financial officer, principal accounting officer or persons performing similar functions and (2) the nature of any waiver, including an implicit waiver, from a provision of our code of conduct that is granted to one of these specified officers, the name of such person who is granted the waiver and the date of the waiver on our website in the future.

Item 1A. Risk Factors

You should carefully consider the risks described below, together with all of the other information included in this report, in considering our business and prospects. The risks and uncertainties described below contain forward-looking statements, and our actual results may differ materially from those discussed here. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations. Each of these risk factors could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our common stock.

Nexavar[®] is our only approved product. If Nexavar fails and we are unable to develop and commercialize alternative product candidates our business would fail.

Nexavar generated all of our commercial revenues for the year ended December 31, 2009, which we rely on to fund our operations. Unless we can successfully commercialize one of our other product candidates, we will continue to rely on Nexavar to generate substantially all of our revenues and fund our operations. All of our other product candidates are still development stage and we may never obtain approval of or earn revenues from any of our product candidates. If for any reason we became unable to continue selling or further developing Nexavar, our business would be seriously harmed and could fail.

Nexavar faces significant competition. If Nexavar is unable to successfully compete against existing and future therapies, our business would be harmed.

There are many existing approaches used in the treatment of unresectable liver cancer including alcohol injection, radiofrequency ablation, chemoembolization, cryoablation and radiation therapy. While Nexavar is the first systemic therapy to demonstrate a survival benefit for patients with unresectable liver cancer, several other therapies are in development, including Pfizer's sunitinib, a multiple kinase inhibitor and Bristol-Myers Squibb's brivanib, a Vascular Endothelial Growth Factor Receptor 2 (VEGFR 2) inhibitor. If Nexavar is unable to compete or be combined successfully with existing approaches or if new therapies are developed for unresectable liver cancer, our business would be harmed.

There are several competing therapies approved for the treatment of advanced kidney cancer, including Sutent, a multiple kinase inhibitor marketed in the United States, the European Union and other countries by Pfizer; Torisel, an mTOR inhibitor marketed in the United States, the European Union and other countries by Wyeth; Avastin, an angiogenesis inhibitor approved for the treatment of advanced kidney cancer in the United States and the European Union and marketed by Genentech, a member of the Roche Group; Afinitor, an mTOR inhibitor marketed in the United States and the European Union by Novartis; and GlaxoSmithKline's Votrient, a multiple kinase inhibitor recently approved by the FDA. Nexavar's U.S. market share in advanced kidney cancer has declined following the introduction of these products into the market. We expect competition to increase as additional products are approved to treat advanced kidney cancer. The successful introduction of other new therapies to treat advanced kidney cancer could significantly reduce the potential market for Nexavar in this indication.

Competitors that target the same tumor types as our Nexavar program and that have commercial products or product candidates at various stages of clinical development include Pfizer, Roche, Wyeth, Novartis International AG, Amgen, AstraZeneca PLC, OSI Pharmaceuticals, Inc., GlaxoSmithKline, Eli Lilly and several others. A number of companies have agents such as small molecules or antibodies targeting VEGF, VEGF receptors, Epidermal Growth Factor, or EGF, EGF receptors, and other enzymes. In addition, many other pharmaceutical companies are developing novel cancer therapies that, if successful, would also provide competition for Nexavar.

A demonstrated survival benefit is often an important element in determining standard of care in oncology. We did not demonstrate a statistically significant overall survival benefit for patients treated with Nexavar in our Phase 3 kidney cancer trial, which we believe was due in part to the crossover of patients from placebo to Nexavar during the conduct of our pivotal clinical trial. Competitors with statistically significant overall survival data could be

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preferred in the marketplace. The FDA approval of Nexavar permits Nexavar to be marketed as an initial, or first-line, therapy and subsequent lines of therapy for the treatment of advanced kidney cancer, but some other approvals do not. For example, the European Union approval indicates Nexavar only for advanced kidney cancer patients that have failed prior cytokine therapy or whose physicians deem alternate therapies inappropriate. We may be unable to compete effectively against competitive products with broader or different marketing authorizations in one or more countries.

Adoption of Nexavar in certain territories for the treatment of patients with unresectable liver cancer may be slow or limited for a variety of reasons including the geographic distribution of the patient population, the current treatment paradigm for unresectable liver cancer patients, the underlying liver disease present in most liver cancer patients and limited reimbursement. If Nexavar is not broadly adopted for the treatment of unresectable liver cancer, our business would be harmed.

The rate of adoption of Nexavar for unresectable liver cancer and the ultimate market size will be dependent on several factors including educating treating physicians on the appropriate use of Nexavar and the management of patients who are receiving Nexavar. This may be difficult as liver cancer patients typically have underlying liver disease and other comorbidities and can be treated by a variety of medical specialists. In addition, screening, diagnostic and treatment practices can vary significantly by region. Further, liver cancer is common in many regions in the developing world where the healthcare systems are limited and reimbursement for Nexavar is limited or unavailable, which will likely limit or slow adoption. If we are unable to change the treatment paradigms for this disease, we may be unable to successfully achieve the market potential of Nexavar in this indication, which could harm our business.

Outside the United States and European Union, some regulatory authorities have not completed their review of our submissions for the use of Nexavar for unresectable liver cancer, including regulatory authorities in Taiwan. These submissions may not result in marketing approval by these authorities in this indication. In addition, certain countries require pricing to be established before reimbursement for this indication may be obtained. We may not receive or maintain pricing approvals at favorable levels or at all, which could harm our ability to broadly market Nexavar.

If our ongoing and planned clinical trials fail to demonstrate that Nexavar is safe and effective or we are unable to obtain necessary regulatory approvals, we will be unable to expand the commercial market for Nexavar and our business may fail.

Nexavar has not been approved in any indications other than unresectable liver cancer and advanced kidney cancer. We and Bayer are currently conducting a number of clinical trials of Nexavar alone or in combination with other therapies or anticancer agents in liver, kidney, non-small cell lung, thyroid, breast, colorectal, ovarian and other cancers including a number of Phase 3 clinical trials. Many companies have failed to demonstrate the effectiveness of pharmaceutical product candidates in Phase 3 clinical trials notwithstanding favorable results in Phase 1 or Phase 2 clinical trials. We may experience similar failure. Our clinical trials may fail to demonstrate that Nexavar is safe and effective, and Nexavar may not gain additional regulatory approval, which would limit the potential market for the product causing our business to fail.

Success in one or even several cancer types does not indicate that Nexavar would be approved or have successful clinical trials in other cancer types. Bayer and Onyx have conducted Phase 3 trials in melanoma and non-small cell lung cancer, or NSCLC, that were not successful. In addition, in the NSCLC Phase 3 trial, higher mortality was observed in the subset of patients with squamous cell carcinoma of the lung treated with Nexavar and carboplatin and paclitaxel than in the subset of patients treated with carboplatin and paclitaxel alone. Based on this observation, further enrollment of squamous cell carcinoma of the lung was suspended from other NSCLC trials sponsored by us. Other cancer types with a histology similar to squamous cell carcinoma of the lung may yield a similar adverse treatment outcome. If so, patients having this histology may be excluded from ongoing and future clinical trials, which could potentially delay clinical trial enrollment and would reduce the number of patients that could potentially receive Nexavar.

If serious adverse side effects are associated with Nexavar, approval for Nexavar could be revoked, sales of Nexavar could decline, and we may be unable to develop Nexavar as a treatment for other types of cancer.

The FDA-approved package insert for Nexavar includes several warnings relating to observed adverse reactions. With continued commercial use of Nexavar and additional clinical trials of Nexavar, we and Bayer have updated and expect to continue to update adverse reactions listed in the package insert to reflect current information. If additional adverse reactions emerge, or a pattern of severe or persistent previously observed side effects is observed in the Nexavar patient population, the FDA or other international regulatory agencies could modify or revoke approval of Nexavar or we may choose to withdraw it from the market. If this were to occur, we may be unable to obtain approval of Nexavar in additional indications and foreign regulatory agencies may decline to approve Nexavar for use in any indication. In addition, if patients receiving Nexavar were to suffer harm as a result of their use of Nexavar, these patients or their representatives may bring claims against us. These claims, or the mere threat of these claims, could have a material adverse effect on our business and results of operations.

If previously unforeseen and unacceptable side effects are observed, we may not proceed with further clinical trials of Nexavar in that cancer type, stage of disease or combination. In our clinical trials, we may treat patients with Nexavar as a single agent or in combination with other therapies, who have failed conventional treatments and who are in advanced stages of cancer. During the course of treatment, these patients may die or suffer adverse medical effects for reasons unrelated to Nexavar. These adverse effects may impact the interpretation of clinical trial results, which could lead to adverse conclusions regarding the toxicity or efficacy of Nexavar.

Specialty pharmacies and distributors that we and Bayer rely upon to sell Nexavar may fail to perform.

Our success depends on the continued customer support efforts of our network of specialty pharmacies and distributors. A specialty pharmacy is a pharmacy that specializes in the dispensing of medications for complex or chronic conditions, which often require a high level of patient education and ongoing management. The use of specialty pharmacies and distributors involves certain risks, including, but not limited to, risks that these specialty pharmacies and distributors will:

- not provide us accurate or timely information regarding their inventories, the number of patients who are using Nexayar or complaints about Nexayar;
- reduce their efforts or discontinue to sell or support or otherwise not effectively sell or support Nexavar;
- not devote the resources necessary to sell Nexavar in the volumes and within the time frames that we expect;
- be unable to satisfy financial obligations to us or others; and/or
- cease operations.

We are dependent upon our collaborative relationship with Bayer to further develop, manufacture and commercialize Nexavar. There may be circumstances that delay or prevent Bayer's ability to develop, manufacture and commercialize Nexavar.

Our strategy for developing, manufacturing and commercializing Nexavar depends in large part upon our relationship with Bayer. If we are unable to maintain our collaborative relationship with Bayer, we would need to undertake development, manufacturing and marketing activities at our own expense. This would significantly increase our capital and infrastructure requirements, may limit the indications we are able to pursue and could prevent us from effectively developing and commercializing Nexavar. Disputes with Bayer may delay or prevent us from further developing, manufacturing or commercializing Nexavar, and could lead to additional litigation or arbitration against Bayer, which could be time consuming and expensive.

We are subject to a number of risks associated with our dependence on our collaborative relationship with Bayer, including:

- decisions by Bayer regarding the amount and timing of resource expenditures for the development and commercialization of Nexavar;
- possible disagreements as to development plans, clinical trials, regulatory marketing or sales;

- our inability to co-promote Nexavar in any country outside the United States, which makes us solely dependent on Bayer to promote Nexavar in foreign countries;
- Bayer's right to terminate the collaboration agreement us on limited notice and for reasons outside our control;
- loss of significant rights if we fail to meet our obligations under the collaboration agreement;
- the development or acquisition by Bayer of competing products, including fluoro-sorafenib;
- adverse regulatory or legal action against Bayer resulting from failure to meet healthcare industry
 compliance requirements in the promotion and sale of Nexavar, including federal and state reporting
 requirements;
- changes in key management personnel at Bayer, including Bayer's representatives on the collaboration's executive team; and
- disagreements with Bayer regarding interpretation or enforcement of the collaboration agreement.

We have limited ability to direct Bayer in its promotion of Nexavar in foreign countries and we may be unable to obtain any remedy against Bayer. Bayer may not have sufficient expertise to promote oncology products in foreign countries and may fail to devote appropriate resources to this task. In addition, Bayer may establish a sales and marketing infrastructure for Nexavar outside the United States that is too large and expensive in view of the magnitude of the Nexavar sales opportunity or establish this infrastructure too early in view of the ultimate timing of potential regulatory approvals. Because we share in the profits and losses arising from sales of Nexavar outside of the United States, (except in Japan), we are at risk with respect to the success or failure of Bayer's commercial decisions related to Nexavar as well as the extent to which Bayer succeeds in the execution of its strategy.

Bayer's development of fluoro-sorafenib may affect Bayer's incentives to develop and commercialize Nexavar that are different from our own. Our litigation against Bayer regarding the ownership of flouro-sorafenib, which is a variant of sorafenib, may be time consuming and expensive, and may be a distraction to our management. If it is ultimately determined that Onyx has no rights to fluoro-sorafenib and if Bayer obtains approval for this product, it could compete with and cannibalize sales of Nexavar, thereby harming our business.

Under the terms of the collaboration agreement, we and Bayer must agree on the development plan for Nexavar. If we and Bayer cannot agree, clinical trial progress could be significantly delayed or halted. Further, if we or Bayer cease funding development of Nexavar under the collaboration agreement, then that party will be entitled to receive a royalty, but not to share in profits. Bayer could, upon 60 days notice, elect at any time to terminate its co-funding of the development of Nexavar. If Bayer terminates its co-funding of Nexavar development, we may be unable to fund the development costs on our own and may be unable to find a new collaborator.

In addition, Bayer has the right, which it is not currently exercising, to nominate a member to our board of directors as long as we continue to collaborate on the development of a compound. Because of these rights, ownership and voting arrangements, our officers, directors, principal stockholders and collaborator may not be able to effectively control the election of all members of the board of directors and determine all corporate actions.

Our collaboration agreement with Bayer will terminate when patents expire that were issued in connection with product candidates discovered under that agreement, or at the time when neither we nor Bayer are entitled to profit sharing under that agreement, whichever is later. The worldwide patents and patent applications covering Nexavar are owned by Bayer and certain Nexavar patents are licensed to us through our collaboration agreement. We have no control over the filing, strategy, or prosecution of the Nexavar patent applications.

Nexavar may face challenges and competition from generic products.

As of December 20, 2009, generic manufacturers were permitted to file ANDAs in the U.S. seeking FDA authorization to manufacture and market generic versions of Nexavar, together with Paragraph IV certifications that challenge the scope, validity or enforceability of the Nexavar patents. If Bayer or we fail to timely file a lawsuit against any ANDA filer, that ANDA filer may not be subject to an FDA stay, and upon approval of the ANDA, the ANDA filer may elect to launch a generic version of Nexavar, thereby harming our business. Even if a lawsuit is

timely filed, Bayer and we may be unable to successfully enforce and defend the Nexavar patents and we may face generic competition prior to expiration of the Nexavar patents in 2020.

Similarly, outside the United States, generic companies or other competitors may challenge the scope, validity or enforceability of the Nexavar patents, requiring Bayer and us to engage in complex, lengthy and costly litigation or other proceedings. Generic companies may develop, seek approval for, and launch generic versions of Nexavar. Bayer may be unsuccessful in defending or enforcing the Nexavar patents in one or more countries and could face generic completion prior to expiration of the Nexavar patents, which would harm our business.

The market may not accept our products and we may be subject to pharmaceutical pricing and third-party reimbursement pressures.

Nexavar or our product candidates that may be approved may not gain market acceptance among physicians, patients, healthcare payers and/or the medical community or the market may not be as large as forecasted. A significant factor that affects market acceptance of Nexavar or future products is the availability of third-party reimbursement. Our commercial success may depend, in part, on the availability of adequate reimbursement for patients from third-party healthcare payers, such as government and private health insurers and managed care organizations. Third-party payers are increasingly challenging the pricing of medical products and services, especially in global markets, and their reimbursement practices may affect the price levels for Nexavar or future products. In addition, the market for our products may be limited by third-party payers who establish lists of approved products and do not provide reimbursement for products not listed. If our products are not on the approved lists in one or more countries, our sales may suffer. Proposed healthcare reform or changes in government legislation or regulation, such as the Medicare Act in the United States, including Medicare Part D, or changes in private third-party payers' policies towards reimbursement for our products may reduce reimbursement of Nexavar and our future products and increase the amounts that patients have to pay themselves. Non-government organizations can influence the use of Nexavar and reimbursement decisions for Nexavar in the United States and elsewhere. For example, the National Comprehensive Cancer Network, or NCCN, a not-for-profit alliance of cancer centers, has issued guidelines for the use of Nexavar in the treatment of advanced kidney cancer and unresectable liver cancer. These guidelines may affect treating physicians' use of Nexavar.

Nexavar's success in Europe and other regions will also depend largely on obtaining and maintaining government reimbursement. For example, in Europe and in many other international markets, most patients will not use prescription drugs that are not reimbursed by their governments. Negotiating prices with governmental authorities can delay commercialization by twelve months or more. Even if reimbursement is available, reimbursement policies may adversely affect sales and profitability of Nexavar. In addition, in Europe and in many international markets, governments control the prices of prescription pharmaceuticals and expect prices of prescription pharmaceuticals to decline over the life of the product or as volumes increase. In the Asia-Pacific region, excluding Japan, China leads in Nexavar sales, however, reimbursement typically requires multiple steps. Also, in December 2009, health authorities in China published a new National Reimbursement Drug List, or NRDL, which lists medicines that are expected to be sold at government-controlled prices. There were no targeted oncology drugs, including Nexavar, on the list, however, we believe that the Ministry of Human Resource and Social Security, the group responsible for developing the NDRL, plans to establish a mechanism and framework for reimbursement of high-value innovative products, such as targeted oncology drugs. Reimbursement policies are subject to change due to economic, political or competitive factors. We believe that this will continue into the foreseeable future as governments struggle with escalating health care spending.

A number of additional factors may limit the market acceptance of our products, including the following:

- rate of adoption by healthcare practitioners;
- treatment guidelines issued by government and non-government agencies;
- types of cancer for which the product is approved;
- rate of a product's acceptance by the target patient population;
- timing of market entry relative to competitive products;

25

- availability of alternative therapies;
- price of our product relative to alternative therapies, including generic versions of our products, or generic versions of innovative products that compete with our products;
- · extent of marketing efforts by us and third-party distributors or agents retained by us; and
- side effects or unfavorable publicity concerning our products or similar products.

If Nexavar or any of our future products do not achieve market acceptance, we may not realize sufficient revenues from product sales, which may cause our stock price to decline.

We face intense competition and rapid technological change, and many of our competitors have substantially greater resources than we have.

We are engaged in a rapidly changing and highly competitive field. We are seeking to develop and market oncology products that face significant competition from other products and therapies that currently exist or are being developed. Many other companies are actively seeking to develop products that have disease targets similar to those we are pursuing, or products designed to treat the same diseases we are seeking to treat. Some of these competitive product candidates are in clinical trials and others are approved; some have long histories of safe and effective use. In addition, following the expiration or invalidation of applicable patents, generic drug manufacturers may gain regulatory authorization to manufacture and sell generic versions of our competitors' approved products, in which case our approved products would potentially compete with generic products.

Many of our competitors, either alone or together with collaborators, have substantially greater financial resources and research and development staffs. In addition, many of these competitors, either alone or together with their collaborators, have significantly greater experience than we do in:

- · discovering and patenting products;
- undertaking preclinical testing and human clinical trials;
- obtaining FDA and other regulatory approvals;
- · manufacturing products; and
- marketing and obtaining reimbursement for products.

Accordingly, our competitors may succeed in obtaining patent protection, receiving regulatory approval in the U.S. or other countries, or commercializing product candidates before, or more successfully than, we do. We will compete with companies with greater preclinical, marketing and manufacturing capabilities, areas in which we have limited or no experience. In addition, we have not developed or marketed products for any hematological cancer, including multiple myeloma, and may be at a disadvantage to our competitors. Carfilzomib, if approved for multiple myeloma, would compete directly with products marketed by Millennium Pharmaceuticals, Inc., a wholly owned subsidiary of Takeda Pharmaceutical Company Limited, Celgene Corporation and potentially against agents currently in development for treatment of this disease by Merck & Co. Inc., Bristol-Myers Squibb, Keryx Biopharmaceuticals, Inc., Nereus Pharmaceuticals and Cephalon, Inc.

Developments by competitors may render our product candidates obsolete or noncompetitive. We face and will continue to face intense competition from other companies for collaborations with pharmaceutical and biotechnology companies, for establishing relationships with academic and research institutions, and for licenses to proprietary technology

We anticipate that we will face increased competition in the future as new companies enter our markets and as scientific developments surrounding other cancer therapies continue to accelerate.

If we are not successful at integrating the Proteolix organization with ours, we may not be able to realize benefits from our acquisition.

Achieving the anticipated benefits of the Proteolix acquisition will depend in part on the successful integration of Onyx's and Proteolix's technical and business operations and personnel in a timely and efficient manner. Integration

requires coordination of personnel and the integration of systems, applications, policies, procedures, business processes and operations, all of which is a complex, costly and time-consuming process. The difficulties of integration include, among others:

- · consolidating research and development operations;
- retaining key employees;
- consolidating corporate and administrative infrastructures, including integrating and managing information technology and other support systems and processes;
- preserving relationships with third parties, such as regulatory agencies, clinical investigators, key
 opinion leaders, clinical research organizations, contract manufacturing organizations, licensors and
 suppliers;
- · appropriately identifying and managing the liabilities of the combined company; and
- difficulty managing new risks associated with facilities, including environmental risks and compliance with laws regulating laboratories.

We have limited experience managing discovery research and preclinical activities or operating research laboratories, and may be unsuccessful at doing so or at motivating and retaining key individuals responsible for these activities.

We cannot assure stockholders that we will receive any benefits of this or any other merger or acquisition, or that any of the difficulties described above will not adversely affect the combined company. The integration process may be difficult and unpredictable because of possible conflicts and differing opinions on business, scientific and regulatory matters.

We expect these integration efforts to place a significant burden on our management and internal resources, which could result in delays in clinical trial and product development programs and otherwise harm our business, financial condition and operating results.

Our clinical trials could take longer to complete than we project or may not be completed at all, and; we may never obtain regulatory approval for carfilzomib or any other future product candidate.

The timing of initiation and completion of clinical trials may be subject to significant delays resulting from various causes, including actions by Bayer, scheduling conflicts with participating clinicians and clinical institutions, difficulties in identifying and enrolling patients who meet trial eligibility criteria and shortages of available drug supply. We may face difficulties transitioning carfilzomib clinical trials to our management and difficulties developing relationships with carfilzomib development partners, including clinical research organizations, contract manufacturing organizations, key opinion leaders and clinical investigators. We may not complete clinical trials involving Nexavar, carfilzomib or any of our other product candidates as projected or at all.

We may not have the necessary capabilities to successfully manage the execution and completion of ongoing or future clinical trials in a way that leads to approval of Nexavar, carfilzomib or other product candidates for their target indications. In addition, we rely on Bayer, academic institutions, cooperative oncology organizations and clinical research organizations to conduct, supervise or monitor the majority of clinical trials involving Nexavar. We have less control over the timing and other aspects of these clinical trials than if we conducted them entirely on our own. Failure to commence or complete, or delays in our planned clinical trials may prevent us from commercializing Nexavar in indications other than kidney cancer and unresectable liver cancer.

Carfilzomib is in mid-stage clinical stage and ONX 0801 is in the Phase 1 clinical stage. Successful development of these compounds and our other product candidates is highly uncertain and depends on a number of factors, many of which are beyond our control. Compounds that appear promising in research or development, including Phase 2 clinical trials, may be delayed or fail to reach later stages of development or the market for a variety of reasons including:

- nonclinical tests may show the product to be toxic or lack efficacy in animal models;
- clinical trial results may show the product to be less effective than desired or to have harmful or problematic side effects;

- regulatory approvals may not be received, or may be delayed due to factors such as slow enrollment in
 clinical studies, extended length of time to achieve study endpoints, additional time requirements for
 data analysis or preparation of an IND, discussions with regulatory authorities, requests from
 regulatory authorities for additional preclinical or clinical data, analyses or changes to study design, or
 unexpected safety, efficacy or manufacturing issues;
- difficulties formulating the product, scaling the manufacturing process or in getting approval for manufacturing;
- manufacturing costs, pricing or reimbursement issues, or other factors may make the product uneconomical;
- proprietary rights of others and their competing products and technologies may prevent our product from being developed or commercialized or may increase the cost of doing so; and
- contractual rights of our collaborators or others may prevent our product from being developed or commercialized or may increase the cost of doing so.

We do not have the manufacturing expertise or capabilities for any current and future products and are dependent on others to fulfill our manufacturing needs, which could result in lost sales and the delay of clinical trials or regulatory approval.

Under our collaboration agreement with Bayer, Bayer has the manufacturing responsibility to supply Nexavar for clinical trials and for commercialization. Should Bayer give up its right to co-develop Nexavar, we would have to manufacture Nexavar, or contract with another third party to do so for us. Under our agreement with BTG, we are responsible for all product development and commercialization activities of ONX 0801. Under our agreement with S*BIO, if we exercise our options and if S*BIO fails to supply us inventory through manufacturing, or if other specified events occur, we have co-exclusive rights (with S*BIO) to make and have made ONX 0803 and ONX 0805 for use and sale in the United States, Canada and Europe. In addition, we have manufacturing responsibility for carfilzomib, ONX 0912 and ONX 0914.

We lack the resources, experience and capabilities to manufacture Nexavar or any other product candidate on our own and would require substantial funds and time to establish these capabilities. Consequently, we are, and expect to remain, dependent on third parties for manufacturing. These parties may encounter difficulties in production scale-up, production yields, control and quality assurance, regulatory status or shortage of qualified personnel. They may not perform as agreed or may not continue to manufacture our products for the time required to test or market our products. They may fail to deliver the required quantities of our products or product candidates on a timely basis and at commercially reasonable prices. In addition, marketed drugs and their contract manufacturing organizations are subject to continual review, including review and approval of their manufacturing facilities. Discovery of previously unknown problems with a medicine may result in restrictions on its permissible uses, or on the manufacturer, including withdrawal of the medicine from the market. The FDA and similar foreign regulatory authorities may also implement additional new standards, or change their interpretation and enforcement of existing standards and requirements for the manufacture, packaging or testing of products at any time. If we or our third party manufacturers are unable to comply or if we fail to maintain regulatory approval, this will impair our ability to meet the market demand for our approved drugs, delay ongoing clinical trials of our product candidates or delay our drug applications for regulatory approval. If these third parties do not adequately perform, we may be forced to incur additional expenses to pay for the manufacture of products or to develop our own manufacturing capabilities. In addition, we could be subject to regulatory or civil actions or penalties that could significantly and adversely affect our business.

If we lose our key employees or are unable to attract or retain qualified personnel, our business could suffer.

The loss of the services of key employees may have an adverse impact on our business unless or until we hire a suitably qualified replacement. Any of our key personnel could terminate their employment with us at any time and without notice. We depend on our continued ability to attract, retain and motivate highly qualified personnel. We face competition for qualified individuals from numerous pharmaceutical and biotechnology companies,

universities and other research institutions. In order to succeed in our research and development efforts, we will need to continue to hire individuals with the appropriate scientific skills.

We may not be able to realize the potential financial or strategic benefits of future business acquisitions or strategic investments, which could hurt our ability to grow our business, develop new products or sell our products.

In addition to our agreements with BTG and S*BIO and our acquisition of Proteolix, we may enter into future acquisitions of, or investments in, businesses, in order to complement or expand our current business or enter into a new product area. Negotiations associated with an acquisition or strategic investment could divert management's attention and other company resources. Any of the following risks associated with future acquisitions or investments could impair our ability to grow our business, develop new products, or sell Nexavar, and ultimately could have a negative impact on our growth or our financial results:

- difficulty in combining the products, operations or workforce, including key personnel, of any acquired business with our business;
- difficulty in operating in a new or multiple new locations;
- disruption of our ongoing businesses or the ongoing business of the company that we invest in or acquire;
- difficulty in realizing the potential financial or strategic benefits of the transaction;
- · difficulty in maintaining uniform standards, controls, procedures and policies;
- disruption of or delays in ongoing research, clinical trials and development efforts;
- diversion of capital and other resources;
- · assumption of liabilities;
- diversion of resources and unanticipated expenses resulting from litigation arising from potential or actual business acquisitions or investments;
- difficulties in entering into new markets in which we have limited or no experience and where competitors in such markets have stronger positions; and
- impairment of relationships with our or the acquired businesses' employees and other third parties, such as clinical research organizations, contract manufacturing organizations, licensors, suppliers, or the loss of such relationships as a result of our acquisition or investment.

In addition, the consideration for any future acquisition could be paid in cash, shares of our common stock, the issuance of convertible debt securities or a combination of cash, convertible debt and common stock. If we make an investment in cash or use cash to pay for all or a portion of an acquisition, our cash and investment balances would be reduced which could negatively impact our liquidity, the growth of our business or our ability to develop new products. However, if we pay the consideration with shares of common stock, or convertible debentures, the holdings of our existing stockholders would be diluted. The significant decline in the trading price of our common stock would make the dilution to our stockholders more extreme and could negatively impact our ability to pay the consideration with shares of common stock or convertible debentures. We cannot forecast the number, timing or size of future strategic investments or acquisitions, or the effect that any such investments or acquisitions might have on our operations or financial results.

We face product liability risks and may not be able to obtain adequate insurance.

The sale of Nexavar and the use of it and other products in clinical trials and commercial use expose us to product liability claims. In the United States, FDA approval of a drug may not offer protection from liability claims under state law (i.e., federal preemption defense), the tort duties for which may vary state to state. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit commercialization of Nexavar and/or future products.

We believe that we have obtained reasonably adequate product liability insurance coverage that includes the commercial sale of Nexavar and clinical trials of Nexavar and our other product candidates. However, we may not be able to maintain insurance coverage at a reasonable cost. We may not be able to obtain additional insurance coverage that will be adequate to cover product liability risks that may arise should a future product candidate receive marketing approval. Whether or not we are insured, a product liability claim or product recall may result in significant losses. Regardless of merit or eventual outcome, product liability claims may result in:

- decreased demand for a product;
- injury to our reputation;
- distraction of management;
- withdrawal of clinical trial volunteers; and
- loss of revenues.

We or Bayer may not be able to protect or enforce our or their intellectual property and we may not be able to operate our business without infringing the intellectual property rights of others.

We can protect our technology from unauthorized use by others only to the extent that our technology is covered by valid and enforceable patents, effectively maintained as trade secrets, or otherwise protected as confidential information or know-how. We depend in part on our ability to:

- obtain patents;
- license technology rights from others;
- protect trade secrets;
- · operate without infringing upon the proprietary rights of others; and
- prevent others from infringing on our proprietary rights, particularly generic drug manufacturers.

Patents and patent applications covering Nexavar are owned by Bayer. Those Nexavar patents that arose out of our collaboration agreement with Bayer are licensed to us, including two United States patents covering Nexavar and pharmaceutical compositions of Nexavar. Both patents will expire January 12, 2020. These two patents are listed in the FDA's Approved Drug Product List (Orange Book). Based on publicly available information, Bayer also has patents in several European countries covering Nexavar, which will expire in 2020. Bayer has other patents and patent applications pending worldwide that cover Nexavar alone or in combination with other drugs for treating cancer. Certain of these patents may be subject to possible patent-term extension, the entitlement to and the term of which cannot presently be calculated, in part because Bayer does not share with us information related to its Nexavar patent portfolio. We cannot be certain that these issued patents and future patents if they issue will provide adequate protection for Nexavar or will not be challenged by third parties in connection with the filing of an ANDA, or otherwise. Similarly, we cannot be certain that the patents and patent applications acquired in the Proteolix acquisition, or licensed to us by any licensor, will provide adequate protection for carfilzomib or any other product, or will not be challenged by third parties in connection with the filing of an ANDA, or otherwise.

The patent positions of biotechnology and pharmaceutical companies are highly uncertain and involve complex legal and factual questions. Our patents, or patents that we license from others, may not provide us with proprietary protection or competitive advantages against competitors with similar technologies. Competitors may challenge or circumvent our patents or patent applications. Courts may find our patents invalid. Due to the extensive time required for development, testing and regulatory review of our potential products, our patents may expire or remain in existence for only a short period following commercialization, which would reduce or eliminate any advantage the patents may give us.

We may not have been the first to make the inventions covered by each of our issued or pending patent applications, or we may not have been the first to file patent applications for these inventions. Third party patents may cover the materials, methods of treatment or dosage related to our product, or compounds to be used in combination with our products; those third parties may make allegations of infringement. We cannot provide assurances that our products

or activities, or those of our licensors or licensees, will not infringe patents or other intellectual property owned by third parties. Competitors may have independently developed technologies similar or complementary to ours, including compounds to be used in combination with our products. We may need to license the right to use third-party patents and intellectual property to develop and market our product candidates. We may be unable to acquire required licenses on acceptable terms, if at all. If we do not obtain these required licenses, we may need to design around other parties' patents, or we may not be able to proceed with the development, manufacture or, if approved, sale of our product candidates. We may face litigation to defend against claims of infringement, assert claims of infringement, enforce our patents, protect our trade secrets or know-how, or determine the scope and validity of others' proprietary rights. In addition, we may require interference proceedings in the United States Patent and Trademark Office. These activities are uncertain, making any outcome difficult to predict and costly and may be a substantial distraction for our management team.

Bayer may have rights to publish data and information in which we have rights. In addition, we sometimes engage individuals, entities or consultants, including clinical investigators, to conduct research that may be relevant to our business. The ability of these third parties to publish or otherwise publicly disclose information generated during the course of their research is subject to certain contractual limitations; however, these contracts may be breached and we may not have adequate remedies for any such breach. If we do not apply for patent protection prior to publication or if we cannot otherwise maintain the confidentiality of our confidential information, then our ability to receive patent protection or protect our proprietary information will be harmed.

Limited foreign intellectual property protection and compulsory licensing could limit our revenue opportunities.

The laws of some foreign countries do not protect intellectual property rights to the same extent as the laws of the United States. The requirements for patentability may differ in certain countries, particularly developing countries. Some companies have encountered significant problems in protecting and defending such rights in foreign jurisdictions. Many countries, including certain countries in Europe and developing countries, have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In those countries, Bayer, the owner of the Nexavar patent estate, may have limited remedies if the Nexavar patents are infringed or if Bayer is compelled to grant a license of Nexavar to a third party. If compulsory licenses were extended to include Nexavar, this could limit our potential revenue opportunities. Moreover, the legal systems of certain countries, particularly certain developing countries, do not favor aggressive enforcement of patent and other intellectual property protection, which may make it difficult to stop infringement. Many countries limit the enforceability of patents against government agencies or government contractors. These factors could also negatively affect our revenue opportunities in those countries.

We may incur significant liability if it is determined that we are promoting the "off-label" use of drugs or are otherwise found in violation of federal and state regulations in the United States or elsewhere.

To date, the FDA has approved Nexavar only for the treatment of advanced kidney cancer and unresectable liver cancer. Physicians are not prohibited from prescribing Nexavar for the treatment of diseases other than advanced kidney cancer or unresectable liver cancer, however, we and Bayer are prohibited from promoting Nexavar for any non-approved indication, often called "off label" promotion. The FDA and other regulatory agencies actively enforce regulations prohibiting off label promotion and the promotion of products for which marketing authorization has not been obtained. A company that is found to have improperly promoted an off label use may be subject to significant liability, including civil and administrative remedies, as well as criminal sanctions.

Notwithstanding the regulatory restrictions on off-label promotion, the FDA and other regulatory authorities allow companies to engage in truthful, non-misleading and non-promotional medical and scientific communication concerning their products. We engage in the support of medical education activities and engage investigators and potential investigators interested in our clinical trials. Although we believe that all of our communications regarding Nexavar are in compliance with the relevant regulatory requirements, the FDA or another regulatory authority may disagree, and we may be subject to significant liability, including civil and administrative remedies as well as criminal sanctions.

Unstable market and economic conditions may have serious adverse consequences on our business.

Our general business may be adversely affected by the recent economic downturn and volatile business environment and continued unpredictable and unstable market conditions. We believe we are well positioned with significant capital resources to meet our current working capital and capital expenditure requirements. However, if the current equity and credit markets do not sustain improvement or begin to deteriorate again, it may make any necessary future debt or equity financing more difficult, more costly and more dilutive, and may result in adverse changes to product reimbursement and pricing and sales levels, which would harm our operating results. Failure to secure any necessary financing in a timely manner and on favorable terms could have a material adverse effect on our growth strategy, financial performance and stock price and could require us to delay or abandon clinical development plans or plans to acquire additional technology. There is also a possibility that our stock price may decline, due in part to the volatility of the stock market and the general economic downturn, such that we would lose our status as a Well-Known Seasoned Issuer, which allows us to more rapidly and more cost-effectively raise funds in the public markets.

Additionally, other challenges resulting from the current economic environment include fluctuations in foreign currency exchange rates, increases in national unemployment impacting patients' ability to access drugs, increases in uninsured or underinsured patients affecting their ability to afford pharmaceutical products, potential national healthcare reform's impact on the pharmaceutical industry and increased U.S. free goods to patients. There is a risk that one or more of our current service providers, manufacturers and other partners may not survive these difficult economic times, which would directly affect our ability to attain our operating goals on schedule and on budget. Further dislocations in the credit market may adversely impact the value and/or liquidity of marketable securities owned by us.

We are subject to extensive government regulation, which can be costly, time consuming and subject us to unanticipated delays. If we are unable to obtain or maintain regulatory approvals for our products, compounds or product candidates, we will not be able to market or further develop them.

If we have disagreements with Bayer regarding ownership of clinical trial results or regulatory approvals for Nexavar, and the FDA refuses to recognize Onyx as holding, or having access to, the regulatory approvals necessary to commercialize Nexavar, we may experience delays in or be precluded from marketing Nexavar.

For carfilzomib, we are responsible for managing communications with regulatory agencies, including filing investigational new drug applications, filing new drug applications, submission of promotional materials and generally directing the regulatory processes. We have limited experience directing such activities and may not be successful with our planned development strategies, on the planned timelines, or at all. Even if carfilzomib or any other product candidate is designated for "fast track" or "priority review" status or if we seek approval under accelerated approval (Subpart H) regulations, such designation or approval pathway does not necessarily mean a faster development process or regulatory review process or necessarily confer any advantage with respect to approval compared to conventional FDA procedures. If we fail to conduct any required post-approval studies or if the studies fail to verify that any of our product candidates are safe and effective, our FDA approval could be revoked.

If we or Bayer fail to comply with applicable regulatory requirements we could be subject to penalties, including fines, suspensions of regulatory approval, product recall, seizure of products and criminal prosecution.

If we use hazardous or potentially hazardous materials in a manner that causes injury or violates applicable law, we may be liable for damages.

Our research and development activities involve the controlled use of hazardous or potentially hazardous materials, including chemical, biological and radioactive materials. In addition, our operations produce hazardous waste products. Federal, state and local laws and regulations govern the use, manufacture, storage, handling and disposal of hazardous materials. We may incur significant additional costs to comply with these and other applicable laws in the future. Also, even if we are in compliance with applicable laws, we cannot completely eliminate the risk of contamination or injury resulting from hazardous materials and we may incur liability as a result of any such contamination or injury. In the event of an accident, we could be held liable for damages or penalized with fines, and the liability could exceed our resources. We do not have any insurance for liabilities arising from hazardous

materials. Compliance with applicable environmental laws and regulations is expensive, and current or future environmental regulations may impair our research, development and manufacturing efforts, which could harm our business.

Our operating results are unpredictable and may fluctuate. If our operating results fail to meet the expectations of securities analysts or investors, the trading price of our stock could decline.

Our operating results will likely fluctuate from quarter to quarter and from year to year, and are difficult to predict. Due to a highly competitive environment in kidney cancer and launches throughout the world, as well as potential changes in the treatment paradigm in liver cancer, Nexavar sales will be difficult to predict from period to period. Our operating expenses are highly dependent on expenses incurred by Bayer and are largely independent of Nexavar sales in any particular period or region. In addition, we expect to incur significant operating expenses associated with the development activities of ONX 0801 and carfilzomib. If we exercise our option rights related to ONX 0803 and ONX 0805, we will be required to pay significant license fees and would expect to incur significant development expenses for these compounds. We believe that our quarterly and annual results of operations may be negatively affected by a variety of factors, including but not limited to, the level of demand for Nexavar, reimbursement availability for Nexavar in various countries, the timing and level of investments in sales and marketing efforts to support the sales of Nexavar, the timing and level of investments in the research and development of Nexavar, the ability of Bayer's distribution network to process and ship Nexavar on a timely basis, fluctuations in foreign currency exchange rates and expenditures we may incur to acquire or develop ONX 0801, carfilzomib, ONX 0803 and additional products.

In addition, we must measure compensation cost for stock-based awards made to employees at the grant date of the award, based on the fair value of the award, and recognize the cost as an expense over the employee's requisite service period. As the variables that we use as a basis for valuing these awards change over time, the magnitude of the expense that we must recognize may vary significantly. Any such variance from one period to the next could cause a significant fluctuation in our operating results.

As a result of the acquisition of Proteolix, we may be required to pay up to an additional \$575.0 million in earnout payments upon the receipt of certain regulatory approvals and that satisfaction of other milestones. We recorded a liability for this contingent consideration with a fair value of \$199.0 million based upon a discounted cash flow model that uses significant estimates and assumptions. Any changes to these estimates and assumptions could significantly impact the fair values recorded for this liability resulting in significant charges to our Consolidated Statement of Operations.

It is, therefore, difficult for us to accurately forecast profits or losses. It is possible that in some quarters our operating results could disappoint securities analysts or investors, which could cause the trading price of our common stock to decline, perhaps substantially.

Our stock price is volatile and we are at risk of securities litigation, including class action litigation, due to our expected stock price volatility.

Our stock price is volatile and is likely to continue to be volatile. In the period beginning January 1, 2007 and ending December 31, 2009, our stock price ranged from a high of \$59.50 and a low of \$10.74. A variety of factors may have a significant effect on our stock price, including:

- fluctuations in our results of operations;
- interim or final results of, or speculation about, clinical trials of Nexavar;
- development progress of our early stage compounds;
- decisions by regulatory agencies, or changes in regulatory requirements;
- announcements by us regarding, or speculation about, our business development activities;
- · ability to accrue patients into clinical trials;
- developments in our relationship with Bayer;

- public concern as to the safety and efficacy of our product candidates;
- changes in healthcare reimbursement policies;
- announcements by us or our competitors of technological innovations or new commercial therapeutic products;
- government regulation;
- developments in patent or other proprietary rights or litigation brought against us;
- sales by us of our common stock or debt securities;
- · foreign currency fluctuations, which would affect our share of collaboration profits or losses; and
- · general market conditions.

In the past, stockholders have often brought securities litigation against a company following a decline in the market price of its securities. This risk is especially acute for us, because biotechnology companies have experienced greater than average stock price volatility in recent years and, as a result, have been subject to, on average, a greater number of securities class action claims than companies in other industries. In December 2006, following our announcement that a Phase 3 trial administering Nexavar or placebo tablets in combination with the chemotherapeutic agents carboplatin and paclitaxel in patients with advanced melanoma did not meet its primary endpoint, our stock price declined significantly. Similarly, following our announcement in February 2008 that one of our Phase 3 trials for NSCLC had been stopped because an independent DMC analysis concluded that it did not meet its primary endpoint of improved overall survival, our stock price declined significantly.

With our acquisition of Proteolix, we may be required to pay up to \$575.0 million in earn-out payments upon the receipt of certain regulatory approvals and the satisfaction of other milestones. We may, at our discretion, make any of the earn-out payments, except the first, that become payable to former holders of Proteolix preferred stock, in the form of cash, shares of Onyx common stock or a combination thereof. If we elect to issue shares of our common stock in lieu of making an earn-out payment in cash, this would have a dilutive effect on our common stock and could cause the trading price of our common stock to decline.

We may in the future be the target of securities litigation, including class action litigation. Securities litigation could result in substantial costs, could divert management's attention and resources, and could seriously harm our business, financial condition and results of operations.

We have a history of losses, and we may be unable to sustain profitability.

We achieved profitability for the years ended December 31, 2009 and 2008 of \$16.2 million and \$1.9 million, respectively. However, we incurred a net loss for the year ended December 31, 2007 of \$34.2 million. As of December 31, 2009, we had an accumulated deficit of approximately \$454.5 million. We have incurred losses principally from costs incurred in our research and development programs, from our general and administrative costs and the development of our commercialization infrastructure. We might incur operating losses in the future as we expand our development and commercial activities for our products, compounds and product candidates.

We have made, and plan to continue to make, significant expenditures towards the development and commercialization of Nexavar. We may never realize sufficient product sales to offset these expenditures. In addition, we will require significant funds for the research and development, and if approved, commercialization of ONX 0801, carfilzomib and our other product candidates. Upon the attainment of specified milestones, we are required to make milestone payments to BTG. Similarly, with the acquisition of Proteolix, we made a payment of \$276.0 million in cash upon closing and may be required to make up to \$575.0 million in earn-out payments upon the receipt of certain regulatory approvals and the satisfaction of other milestones. Exercising any of our option rights under our agreement with S*BIO will also cause us to incur additional operating expenses. Our ability to achieve and maintain consistent profitability depends upon success by us and Bayer in marketing Nexavar in approved indications and the successful development and regulatory approvals of Nexavar in additional indications, obtaining regulatory approval for and successfully commercializing carfilzomib, and control of our operating expenses.

We incurred significant indebtedness through the sale of our 4.0% convertible senior notes due 2016, and we may incur additional indebtedness in the future. The indebtedness created by the sale of the notes and any future indebtedness we incur exposes us to risks that could adversely affect our business, financial condition and results of operations.

We incurred \$230.0 million of senior indebtedness in August 2009 when we sold \$230.0 million aggregate principal amount of 4.0% convertible senior notes due 2016, or the 2016 Notes. We may also incur additional long-term indebtedness or obtain additional working capital lines of credit to meet future financing needs. Our indebtedness could have significant negative consequences for our business, results of operations and financial condition, including:

- increasing our vulnerability to adverse economic and industry conditions;
- limiting our ability to obtain additional financing;
- requiring the dedication of a substantial portion of our cash flow from operations to service our indebtedness, thereby reducing the amount of our cash flow available for other purposes;
- limiting our flexibility in planning for, or reacting to, changes in our business; and
- placing us at a possible competitive disadvantage with less leveraged competitors and competitors that may have better access to capital resources.

We cannot assure stockholders that we will continue to maintain sufficient cash reserves or that our business will continue to generate cash flow from operations at levels sufficient to permit us to pay principal, premium, if any, and interest on our indebtedness, or that our cash needs will not increase. If we are unable to generate sufficient cash flow or otherwise obtain funds necessary to make required payments, or if we fail to comply with the various requirements of the 2016 Notes, or any indebtedness which we may incur in the future, we would be in default, which would permit the holders of the 2016 Notes and such other indebtedness to accelerate the maturity of the notes and such other indebtedness and could cause defaults under the 2016 Notes and such other indebtedness. Any default under the notes or any indebtedness which we may incur in the future could have a material adverse effect on our business, results of operations and financial condition.

The conditional conversion features of the 2016 Notes, if triggered, may adversely affect our financial condition and operating results.

In the event the conditional conversion features of the 2016 Notes are triggered, holders of the 2016 Notes will be entitled to convert the 2016 Notes at any time during specified periods at their option. If one or more holders elect to convert their 2016 Notes, unless we elect to satisfy our conversion obligation by delivering solely shares of our common stock, we would be required to make cash payments to satisfy all or a portion of our conversion obligation based on the applicable conversion rate, which could adversely affect our liquidity. In addition, even if holders do not elect to convert their 2016 Notes, we could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal of the 2016 Notes as a current rather than long-term liability, which could result in a material reduction of our net working capital.

We may need additional funds, and our future access to capital is uncertain.

We may need additional funds to conduct the costly and time-consuming activities related to the development and commercialization of Nexavar, carfilzomib and ONX 0801, and if we exercise our option rights, ONX 0803 and ONX 0805, including manufacturing, clinical trials and regulatory approval. Also, we may need funds to develop our early stage product candidates ONX 0912 and ONX 0914, to acquire rights to additional product candidates, or acquire new or complementary businesses. Our future capital requirements will depend upon a number of factors, including:

- · revenue from our product sales;
- global product development and commercialization activities;
- the cost involved in enforcing patents against third parties and defending claims by third parties;

- the costs associated with acquisitions or licenses of additional products;
- the cost of acquiring new or complementary businesses;
- · competing technological and market developments; and
- future fee and milestone payments to BTG, S*BIO and former stockholders of Proteolix.

We may not be able to raise additional capital on favorable terms, or at all. If we are unable to obtain additional funds, we may not be able to fund our share of commercialization expenses and clinical trials. We may also have to curtail operations or obtain funds through collaborative and licensing arrangements that may require us to relinquish commercial rights or potential markets or grant licenses on terms that are unfavorable to us.

We believe that our existing capital resources and interest thereon will be sufficient to fund our current development plans beyond 2010. However, if we change our development plans, acquire rights to or license additional products, or seek to acquire new or complementary businesses, we may need additional funds sooner than we expect. In addition, we anticipate that our expenses related to the development of ONX 0801, carfilzomib and our share of expenses under our collaboration with Bayer will increase over the next several years. While these costs are unknown at the current time, we may need to raise additional capital and may be unable to do so.

A portion of our investment portfolio is invested in auction rate securities, and if auctions continue to fail for amounts we have invested, our investment will not be liquid. If the issuer of an auction rate security that we hold is unable to successfully close future auctions and their credit rating deteriorates, we may be required to adjust the carrying value of our investment through an impairment charge to earnings.

A portion of our investment portfolio is invested in auction rate securities. The underlying assets of these securities are student loans substantially backed by the federal government. Due to adverse developments in the credit markets, beginning in February 2008, these securities have experienced failures in the auction process. When an auction fails for amounts we have invested, the security becomes illiquid. In the event of an auction failure, we are not able to access these funds until a future auction on these securities is successful. We have reclassified these securities from current to non-current marketable securities, and if the issuer is unable to successfully close future auctions and their credit rating deteriorates, we may be required to adjust the carrying value of the marketable securities through an impairment charge to earnings.

If we do not receive timely and accurate financial information from Bayer regarding the development and sale of Nexavar, we may be unable to accurately report our results of operations.

Due to our collaboration with Bayer, we are highly dependent on Bayer for timely and accurate information regarding any revenues realized from sales of Nexavar and the costs incurred in developing and selling it, in order to accurately report our results of operations. If we do not receive timely and accurate information or incorrectly estimate activity levels associated with the co- promotion and development of Nexavar at a given point in time, we could be required to record adjustments in future periods and may be required to restate our results for prior periods. Such inaccuracies or restatements could cause a loss of investor confidence in our financial reporting or lead to claims against us, resulting in a decrease in the trading price of shares of our common stock.

Our operating results could be adversely affected by product sales occurring outside the United States and fluctuations in the value of the United States dollar against foreign currencies.

A majority of Nexavar sales are generated outside of the United States, and a significant percentage of Nexavar commercial and development expenses are incurred outside of the United States. Under our collaboration agreement, we are currently funding 50% of mutually agreed development costs worldwide, excluding Japan. In all foreign countries, except Japan, Bayer first receives a portion of product revenues to repay Bayer for its foreign commercialization infrastructure, after which we receive 50% of net profits on sales of Nexavar. Bayer is funding 100% of development costs in Japan and pays us a single-digit royalty on Nexavar sales in Japan. Therefore, when these sales and expenses are translated into U.S. dollars by Bayer in determining amounts payable to us or payable by us, we are exposed to fluctuations in foreign currency exchange rates. The primary foreign currency in which we have exchange rate fluctuation exposure is the Euro. As we expand our business geographically, we could be exposed to exchange rate fluctuation in other currencies. Exchange rates between these currencies and

U.S. dollars have fluctuated significantly in recent years and may do so in the future. Hedging foreign currencies can be difficult, especially if the currency is not freely traded. We cannot predict the impact of future exchange rate fluctuations on our operating results. We currently do not hedge any transactions or account balances.

Changes in accounting may affect our financial position and results of operations.

U.S. generally accepted accounting principles and related implementation guidelines and interpretations can be highly complex and involve subjective judgments. Changes in these rules or their interpretation, the adoption of new pronouncements or the application of existing pronouncements to changes in our business could significantly affect our financial position and results of operations.

For example, in May 2008, Accounting Standards Codification, or ASC, Subtopic 470-20, formerly known as Financial Accounting Standards Board, or FASB, Staff Position Accounting Principles Board 14-1, was issued. Under ASC Subtopic 470-20 issuers of certain convertible debt instruments that have a net settlement feature and may be settled in cash upon conversion, including partial cash settlement, are required to separately account for the liability (debt) and equity (conversion option) components of the instrument. The carrying amount of the liability component of any outstanding debt instrument is computed by estimating the fair value of a similar liability without the conversion option. The amount of the equity component is then calculated by deducting the fair value of the liability component from the principal amount of the convertible debt instrument. ASC 470-20 is effective for fiscal years beginning after December 15, 2008 and interim periods within those fiscal years. Based on the requirements of ASC 470-20, we reported imputed interest expense related to the 2016 Notes of approximately \$3.1 million during 2009.

In December 2007, the FASB issued Statement of Financial Accounting Standards No. 141 (revised 2007), "Business Combinations," codified to ASC Topic 805. ASC Topic 805 establishes principles and requirements for recognizing and measuring assets acquired, liabilities assumed and any non-controlling interests in the acquired target in a business combination. ASC Topic 805 also provides guidance for recognizing and measuring goodwill acquired in a business combination; requires purchased in-process research and development to be capitalized at fair value as intangible assets at the time of acquisition; requires acquisition-related expenses and restructuring costs to be recognized separately from the business combination; expands the definition of what constitutes a business; and requires the acquirer to disclose information that users may need to evaluate and understand the financial effect of the business combination. ASC Topic 805 is effective on a prospective basis and will impact business combination transactions for which the acquisition date occurs after December 15, 2008. We adopted ASC Topic 805 as of January 1, 2009 and the adoption of ASC Topic 805 had a material impact on the accounting for our acquisition of Proteolix in November 2009.

Provisions in our collaboration agreement with Bayer may prevent or delay a change in control.

Our collaboration agreement with Bayer provides that if we are acquired by another entity by reason of merger, consolidation or sale of all or substantially all of our assets, and Bayer does not consent to the transaction, then for 60 days following the transaction, Bayer may elect to terminate our co-development and co-promotion rights under the collaboration agreement. If Bayer were to exercise this right, Bayer would gain exclusive development and marketing rights to the product candidates developed under the collaboration agreement, including Nexavar. If this happens, we, or our successor, would receive a royalty based on any sales of Nexavar and other collaboration products, rather than a share of any profits, which could substantially reduce the economic value derived from the sales of Nexavar to us or our successor. These provisions of our collaboration agreement with Bayer may have the effect of delaying or preventing a change in control, or a sale of all or substantially all of our assets, or may reduce the number of companies interested in acquiring us.

Existing stockholders have significant influence over us.

Our executive officers, directors and 5% stockholders own, in the aggregate, approximately 29% of our outstanding common stock. As a result, these stockholders will be able to exercise substantial influence over all matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions. This could have the effect of delaying or preventing a change in control of our company and will make some transactions difficult or impossible to accomplish without the support of these stockholders.

Provisions in the indenture for the 2016 Notes may deter or prevent a business combination.

If a fundamental change occurs prior to the maturity date of the 2016 Notes, holders of the notes will have the right, at their option, to require us to repurchase all or a portion of their notes. In addition, if a fundamental change occurs prior to the maturity date of 2016 Notes, we will in some cases be required to increase the conversion rate for a holder that elects to convert its notes in connection with such fundamental change. In addition, the indenture for the notes prohibits us from engaging in certain mergers or acquisitions unless, among other things, the surviving entity assumes our obligations under the 2016 Notes. These and other provisions could prevent or deter a third party from acquiring us even where the acquisition could be beneficial to our stockholders.

Provisions in Delaware law, our charter and executive change of control agreements we have entered into may prevent or delay a change of control.

We are subject to the Delaware anti-takeover laws regulating corporate takeovers. These anti-takeover laws prevent a Delaware corporation from engaging in a merger or sale of more than 10% of its assets with any stockholder, including all affiliates and associates of the stockholder, who owns 15% or more of the corporation's outstanding voting stock, for three years following the date that the stockholder acquired 15% or more of the corporation's stock unless:

- the board of directors approved the transaction where the stockholder acquired 15% or more of the corporation's stock;
- after the transaction in which the stockholder acquired 15% or more of the corporation's stock, the stockholder owned at least 85% of the corporation's outstanding voting stock, excluding shares owned by directors, officers and employee stock plans in which employee participants do not have the right to determine confidentially whether shares held under the plan will be tendered in a tender or exchange offer; or
- on or after this date, the merger or sale is approved by the board of directors and the holders of at least two-thirds of the outstanding voting stock that is not owned by the stockholder.

As such, these laws could prohibit or delay mergers or a change of control of us and may discourage attempts by other companies to acquire us.

Our certificate of incorporation and bylaws include a number of provisions that may deter or impede hostile takeovers or changes of control or management. These provisions include:

- our board is classified into three classes of directors as nearly equal in size as possible with staggered three-year terms;
- the authority of our board to issue up to 5,000,000 shares of preferred stock and to determine the price, rights, preferences and privileges of these shares, without stockholder approval;
- all stockholder actions must be effected at a duly called meeting of stockholders and not by written consent;
- special meetings of the stockholders may be called only by the chairman of the board, the chief executive officer, the board or 10% or more of the stockholders entitled to vote at the meeting; and
- no cumulative voting.

These provisions may have the effect of delaying or preventing a change in control, even at stock prices higher than the then current stock price.

We have entered into change in control severance agreements with each of our executive officers. These agreements provide for the payment of severance benefits and the acceleration of stock option vesting if the executive officer's employment is terminated within 24 months of a change in control. The change in control severance agreements may have the effect of preventing a change in control.

Item 1B. Unresolved Staff Comments

None

Item 2. Properties

Our corporate headquarters, including our principal offices, are located in Emeryville, California. We began occupying these premises in December 2004 and lease a total 60,000 square feet of office space, which expire in 2013. As a result of the acquisition of Proteolix, we acquired a lease for 67,000 square feet of office and laboratory space in South San Francisco, California, which has a remaining period of five years with the option to extend the lease for two additional one-year terms. In addition, we lease 9,000 square feet of space in Richmond, California that is currently subleased through September 2010. Please refer to Note 11, "Facility Leases," of the accompanying consolidated financial statements for further information regarding our lease obligations.

We believe that our current facilities are sufficient to meet our present requirements. We anticipate that additional space will be available, when needed, on commercially reasonable terms.

Item 3. Legal Proceedings

In May 2009, we filed a complaint against Bayer Corporation and Bayer A.G. in the United States District Court for the Northern District of California under the caption *Onyx Pharmaceuticals, Inc. v. Bayer Corporation and Bayer AG*, Case No. CV09-2145 MHP (N.D. Cal.). In the complaint, we have asserted our rights under the Collaboration Agreement to fluoro-sorafenib, a Phase 2 anti-cancer compound that Bayer is developing and to which Bayer refers as regorafenib, its International Nonproprietary Name. Fluoro-sorafenib has the same chemical structure as sorafenib (Nexavar), except that a single fluorine atom has been substituted for a hydrogen atom. Bayer is currently conducting trials of fluoro-sorafenib in kidney, colorectal and liver cancer and is expected to initiate Phase 3 clinical trials of fluoro-sorafenib in kidney cancer in 2010. In the lawsuit, we allege that fluoro-sorafenib was discovered during joint research between us and Bayer and we are seeking monetary damages and a court ruling that we have certain rights to fluoro-sorafenib under the collaboration agreement. Bayer has asserted that we have no such rights. The litigation is currently in the discovery phase.

Item 4. Submission of Matters to a Vote of Securities Holders

No matters were submitted to a vote of our stockholders during the quarter ended December 31, 2009.

PART II.

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Our common stock is traded on the NASDAQ Global Market (NASDAQ) under the symbol "ONXX." We commenced trading on NASDAQ on May 9, 1996. The following table presents the high and low closing sales prices per share of our common stock reported on NASDAQ.

| | . <u></u> | Common Stock | | | | | |
|----------------|-----------|--------------|----------|----------|--|--|--|
| | 200 | 09 | 2008 | | | | |
| | High | Low | High | Low | | | |
| First Quarter | \$ 36.50 | \$ 26.27 | \$ 57.98 | \$ 25.05 | | | |
| Second Quarter | 28.77 | 22.17 | 37.94 | 30.82 | | | |
| Third Quarter | 36.55 | 27.23 | 44.79 | 36.13 | | | |
| Fourth Quarter | 30.04 | 25.13 | 35.93 | 22.40 | | | |

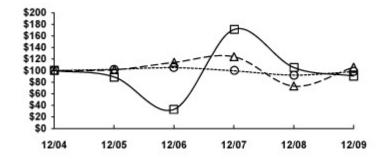
On February 18, 2010, the last reported sales price of our common stock on NASDAQ was \$30.45 per share.

Stock Performance Graph

The following performance graph is not "soliciting material," is not deemed filed with the SEC and is not to be incorporated by reference in any filing by us under the Securities Act of 1933, as amended (the "Securities Act"), or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing. The stock price performance shown on the graph is not necessarily indicative of future price performance.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among ONYX Pharmaceuticals, Inc., The NASDAQ Composite Index And The NASDAQ Pharmaceutical Index



— ONYX Pharmaceuticals, Inc. – △ – NASDAQ Composite - · · · · · · NASDAQ Pharmaceutical

* \$100 invested on 12/31/04 in stock or index, including reinvestment of dividends. Fiscal year ending December 31.

Holders

There were approximately 162 holders of record of our common stock as of February 18, 2010.

Dividends

We have not paid cash dividends on our common stock and do not plan to pay any cash dividends in the foreseeable future.

Recent Sales of Unregistered Securities

None.

Issuer Purchases of Equity Securities

None.

Item 6. Selected Financial Data

This section presents our selected historical financial data. You should carefully read the consolidated financial statements and the notes thereto included in this report and "Management's Discussion and Analysis of Financial Condition and Results of Operations."

The Statement of Operations data for the years ended December 31, 2009, 2008 and 2007 and the Balance Sheet data as of December 31, 2009 and 2008 has been derived from our audited consolidated financial statements included elsewhere in this report. The Statement of Operations data for the years ended December 31, 2006 and 2005 and the Balance Sheet data as of December 31, 2007, 2006 and 2005 has been derived from our audited consolidated financial statements that are not included in this report. Historical results are not necessarily indicative of future results. See the Notes to the Consolidated Financial Statements for an explanation of the method used to determine the number of shares used in computing basic and diluted net income (loss) per share.

| | Year Ended December 31, | | | | | | | | | |
|-----------------------------------|-------------------------|---------|----|-----------|------|-----------------|------|-----------|----|-----------|
| | | 2009 | | 2008 | | 2007 | | 2006 | | 2005 |
| | | | | (In thous | ands | s, except per s | hare | data) | | |
| Statement of Operations Data: | | | | | | | | | | |
| Revenue from collaboration | | | | | | | | | | |
| agreement | \$ | 250,390 | \$ | 194,343 | \$ | 90,429 | \$ | 29,274 | \$ | - |
| Contract revenue from | | | | | | | | | | |
| collaboration | | 1,000 | | - | | - | | - | | - |
| License fee revenue | | - | | - | | - | | 250 | | 1,000 |
| Operating expenses: | | | | | | | | | | |
| Research and development | | 128,506 | | 123,749 | | 83,306 | | 84,169 | | 63,120 |
| Selling, general and | | | | | | | | | | |
| administrative | | 101,132 | | 80,994 | | 60,546 | | 50,019 | | 39,671 |
| Contingent consideration | _ | 1,528 | _ | | _ | | _ | _ | _ | _ |
| Total operating expenses | | 231,166 | | 204,743 | | 143,852 | | 134,188 | | 102,791 |
| Income (loss) from operations | | 20,224 | | (10,400) | | (53,423) | | (104,664) | | (101,791) |
| Investment income, net | | 4,028 | | 12,695 | | 19,256 | | 11,983 | | 6,617 |
| Interest expense | | (6,858) | | - | | - | | - | | - |
| Provision for income taxes | | (1,233) | | (347) | | | | _ | | _ |
| Net income (loss) | \$ | 16,161 | \$ | 1,948 | \$ | (34,167) | \$ | (92,681) | \$ | (95,174) |
| Basic net income (loss) per share | \$ | 0.27 | \$ | 0.03 | \$ | (0.67) | \$ | (2.20) | \$ | (2.64) |
| Diluted net loss per share | \$ | 0.27 | \$ | 0.03 | \$ | (0.67) | \$ | (2.20) | \$ | (2.64) |
| Shares used in computing basic | | | | | | | | | | |
| net income (loss) per share(1) | | 59,215 | | 55,915 | | 51,177 | | 42,170 | | 36,039 |
| Shares used in computing diluted | | | | | | | | | | |
| net income (loss) per share(1) | | 59,507 | | 56,765 | | 51,177 | | 42,170 | | 36,039 |

| | | | De | cember 31, | | |
|------------------------------|---------------|---------------|-----|------------|---------------|---------------|
| | 2009 | 2008 | | 2007 | 2006 | 2005 |
| | | | (In | thousands) | | |
| Balance Sheet Data: | | | | | | |
| Cash, cash equivalents, and | | | | | | |
| current and non-current | | | | | | |
| marketable | \$ 587,282 | \$ 458,046 | \$ | 469,650 | \$ 271,403 | \$ 284,680 |
| securities | | | | | | |
| Goodwill(1) | 193,675 | - | | - | - | - |
| Intangible assets — | | | | | | |
| in-process research and | | | | | | |
| development(1) | 438,800 | - | | - | - | - |
| Total assets | 1,324,680 | 509,767 | | 484,083 | 286,246 | 294,665 |
| Working capital | 530,945 | 428,755 | | 469,215 | 256,699 | 241,678 |
| Advance from collaboration | | | | | | |
| partner, non-current | - | _ | | 39,234 | 40,000 | 30,000 |
| Liability for contingent | | | | | | |
| consideration, current and | | | | | | |
| non-current(1) | 200,528 | - | | - | - | - |
| Convertible senior notes due | | | | | | |
| 2016(2) | 143,669 | _ | | _ | - | - |
| Accumulated deficit | (454,549) | (470,710) | | (472,658) | (438,491) | (345,810) |
| Total stockholders' equity | 750,556 | 475,200 | | 432,237 | 222,780 | 223,240 |

December 31

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following Management's Discussion and Analysis of Financial Condition and Results of Operations contains forward-looking statements that involve risks and uncertainties. We use words such as "may," "will," "expect," "anticipate," "estimate," "intend," "plan," "predict," "potential," "believe," "should" and similar expressions to identify forward-looking statements. These statements appearing throughout our Annual Report on Form 10-K are statements regarding our intent, belief, or current expectations, primarily regarding our operations. You should not place undue reliance on these forward-looking statements, which apply only as of the date of this Annual Report on Form 10-K. Our actual results could differ materially from those anticipated in these forward-looking statements for many reasons, including those set forth under "Business," Item 1A "Risk Factors" and elsewhere in this Annual Report on Form 10-K.

Overview

We are a biopharmaceutical company dedicated to developing innovative therapies that target the molecular mechanisms that cause cancer. Through our internal research programs and in conjunction with our collaborators, we are applying our expertise to develop and commercialize therapies designed to exploit the genetic and molecular differences between cancer cells and normal cells with the goal of *Changing the Way Cancer is Treated*TM. We are focusing on this goal as we continue to maximize current commercialization opportunities for Nexavar[®] (sorafenib) tablets, along with our collaborator, Bayer HealthCare Pharmaceuticals Inc., or Bayer. In addition, we continue to expand our development pipeline, with several clinical and preclinical stage product candidates.

Our first commercially available product, Nexavar® (sorafenib) tablets, being developed with our collaborator, Bayer HealthCare Pharmaceuticals Inc., or Bayer, is approved by the United States Food and Drug Administration, or FDA, for the treatment of patients with advanced kidney cancer and unresectable liver cancer. Nexavar is a novel, orally available kinase inhibitor and is one of a new class of anticancer treatments that target both cancer cell

⁽¹⁾ In November 2009, we completed our acquisition of Proteolix for an aggregate purchase price with a fair value of \$475.0 million. As a result of the acquisition, we acquired \$438.8 million of in-process research and development and \$193.7 million of goodwill, and we assumed \$157.1 million of deferred tax liabilities primarily related to federal net operating loss and tax credit carryforwards.

⁽²⁾ In August 2009, we issued, through an underwritten public offering, \$230.0 million aggregate principal amount of 4.0% convertible senior notes due 2016.

proliferation and tumor growth through the inhibition of key signaling pathways. In December 2005, Nexavar became the first newly approved drug for patients with advanced kidney cancer in over a decade. In November 2007, Nexavar was approved as the first and is currently the only systemic therapy for the treatment of patients with unresectable liver cancer. Nexavar is now approved in more than 90 countries for the treatment of advanced kidney cancer and in more than 90 countries for the treatment of unresectable liver cancer. We and Bayer are also conducting clinical trials of Nexavar in several important cancer types in addition to advanced kidney cancer and unresectable liver cancer, including lung, thyroid, breast, ovarian and colon cancers.

We and Bayer are commercializing Nexavar, for the treatment of patients with unresectable liver cancer and advanced kidney cancer. Nexavar has been approved and is marketed for these indications in the United States and in the European Union and in other territories worldwide. In the United States, we co-promote Nexavar with Bayer. Outside of the United States, Bayer manages all commercialization activities. In 2009, worldwide net sales of Nexavar as recorded by Bayer were \$843.5 million.

In collaboration with Bayer, we initially focused on demonstrating Nexavar's ability to benefit patients suffering from a cancer for which there were no or few established therapies. With the approval of Nexavar for the treatment of advanced kidney cancer and unresectable liver cancer, the two companies have established the Nexavar brand and created a global commercial oncology presence. In order to benefit as many patients as possible, we and Bayer are investigating the administration of Nexavar with previously approved anticancer therapies in more common cancers, with the objective of enhancing the anti-tumor activity of existing therapies through combination with Nexavar.

We and Bayer are developing and marketing Nexavar under our collaboration and co-promotion agreements. We fund 50% of the development costs for Nexavar worldwide, excluding Japan. With Bayer, we co-promote Nexavar in the United States and share equally in any profits or losses. Outside of the United States, excluding Japan, Bayer has exclusive marketing rights and we share profits equally. In Japan, Bayer funds all product development, and we will receive a royalty on any sales. Our collaboration agreements with Bayer also provided that we receive creditable milestone-based payments totaling \$40.0 million, all of which have been received. These payments are repayable by us to Bayer from a portion of our share of any quarterly collaboration profits and royalties after deducting certain contractually agreed upon expenditures. As of December 31, 2009, the entire amount of these development payments was paid back to Bayer based on the profitability of the collaboration thus far.

In November 2009, we made a significant move towards achieving our goal in becoming a multi-product portfolio company by acquiring Proteolix, Inc., or Proteolix, a privately-held biopharmaceutical company located in South San Francisco, California. Proteolix focused primarily on the discovery and development of novel therapies that target the proteasome for the treatment of hematological malignancies, solid tumors and autoimmune disorders. This acquisition, which included carfilzomib, has provided us with an opportunity to expand into the hematological malignancies market. The aggregate cash consideration to former Proteolix stockholders at closing was \$276.0 million. In addition, we may be required to pay up to an additional \$575.0 million in earnout payments upon the receipt of certain regulatory approvals and the satisfaction of other milestones.

We have expanded our development pipeline through the acquisition of rights to development-stage novel anticancer agents. In November 2008, we entered into an agreement to license worldwide development and commercialization rights to ONX 0801, previously known as BGC 945, from BTG International Limited, or BTG, a London-based specialty pharmaceuticals company. ONX 0801 is in preclinical development and is believed to work by combining two established approaches to improve outcomes for cancer patients, selectively targeting tumor cells through the alpha-folate receptor, which is overexpressed in a number of tumor types, and inhibiting thymidylate synthase, a key enzyme responsible for cell growth and division. In September 2009, we initiated Phase 1 studies of ONX 0801 in advanced solid tumors, triggering a \$7.0 million milestone payment to BTG. In December 2008, we acquired options to license SB1518 (designated by Onyx as ONX 0803) and SB1578 (designated by Onyx as ONX 0805), which are both Janus Kinase 2, or JAK2, inhibitors, from S*BIO Pte Ltd, or S*BIO, a Singapore-based company. The activation of JAK2 stimulates blood cell production and the JAK2 pathway is known to play a critical role in the proliferation of certain types of cancer cells and in the anti-inflammatory pathway. S*BIO is conducting trials for ONX 0803 in multiple Phase 1 studies, and in February 2010, S*BIO initiated two Phase 2 trials using ONX 0803 in myelofibrosis. ONX 0805 is currently in preclinical development.

In December 2009, our collaborator, Warner-Lambert Company, now a subsidiary of Pfizer Inc., initiated a Phase 2 clinical trial administering PD 0332991, a small molecule cell cycle inhibitor resulting from our collaboration that targets a cyclin-dependent kinase 4/6, or CDK 4/6. In accordance with our collaboration agreement, we earned a \$1.0 million milestone payment due from Pfizer.

With the exception of the years ended December 31, 2009 and 2008, we have incurred net losses since our inception. Our ability to achieve continued and sustainable profitability is uncertain and is dependent on a number of factors. These factors include, but are not limited to, the level of patient demand for Nexavar, the ability of Bayer's distribution network to process and ship product on a timely basis, investments in sales and marketing efforts to support the sales of Nexavar, Bayer and our investments in the research and development of Nexavar, fluctuations in foreign exchange rates and expenditures we may incur to acquire or develop and commercialize additional products. Our operating results will likely fluctuate from quarter to quarter and from year to year, and are difficult to predict. Since inception, we have relied on public and private financings, combined with milestone payments from our collaborators, to fund our operations and may continue to do so in future periods. As of December 31, 2009, our accumulated deficit was approximately \$454.5 million.

Our business is subject to significant risks, including the risks inherent in our development efforts, the results of the Nexavar clinical trials, the marketing of Nexavar as a treatment for patients in approved indications, our dependence on collaborative parties, uncertainties associated with obtaining and enforcing patents, the lengthy and expensive regulatory approval process and competition from other products. For a discussion of these and some of the other risks and uncertainties affecting our business, see Item 1A "Risk Factors" of this Annual Report on Form 10-K.

FASB Accounting Standards Codification

In June 2009, the Financial Accounting Standards Board, or FASB, issued Statement of Financial Accounting Standards, or SFAS No. 168, *The FASB Accounting Standards Codification and the Hierarchy of Generally Accepted Accounting Principles (GAAP)* — a replacement of SFAS No. 162, which establishes the FASB Accounting Standards Codification, or ASC as the source of authoritative U.S. GAAP recognized by the FASB to be applied by non-governmental entities. This guidance is effective for interim periods and fiscal years ending after September 15, 2009. We adopted the provisions of this guidance in the quarter ended September 30, 2009 and as a result, the majority of references to historically issued accounting pronouncements are now superseded by references to the FASB ASC. Certain accounting pronouncements, such as SFAS 168, will remain authoritative until they are integrated into the FASB ASC.

Critical Accounting Policies, Estimates and Judgments

The accompanying discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements and the related disclosures, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these consolidated financial statements requires us to make significant estimates, assumptions and judgments that affect the amounts of assets, liabilities, revenues and expenses and related disclosures. We base our estimates and judgments on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Significant estimates used in 2009 included assumptions used in the determination of the fair value of marketable securities, revenue from collaboration agreement, the effect of business combinations, fair value measurement of tangible and intangible assets and liabilities, goodwill and other intangible assets, fair value of convertible senior notes, research and development expenses, stock-based compensation related to stock options granted and the provision for income taxes. Actual results could differ materially from these estimates.

We believe the following critical accounting policies reflect the more significant judgments and estimates used in the preparation of our consolidated financial statements.

Marketable Securities: Marketable securities consist primarily of corporate debt securities, corporate commercial paper, debt securities of United States government agencies, auction rate notes and money market funds and are classified as available-for-sale securities. Concentration of risk is limited by diversifying investments among a variety of industries and issuers. Available-for-sale securities are carried at fair value based on quoted market prices, with any unrealized gains and losses reported in accumulated other comprehensive income (loss). For securities

with unobservable quoted market prices, such as the AAA rated auction rate securities collateralized by student loans that are included in our investment portfolio, the fair value is determined using a discounted cash flow analysis. The discounted cash flow model used to value these securities is based on a specific term and liquidity assumptions. An increase or decrease in either of these assumptions could result in a \$1.6 million decrease or increase in value. Unrealized losses are charged against "investment income" when a decline in fair value is determined to be other-than-temporary. We review several factors to determine whether a loss is other-than-temporary. These factors include but are not limited to: (i) the extent to which the fair value is less than cost and the cause for the fair value decline, (ii) the financial condition and near-term prospects of the issuer, (iii) the length of time a security is in an unrealized loss position and (iv) our ability to hold the security for a period of time sufficient to allow for any anticipated recovery in fair value. Available-for-sale securities with remaining maturities of greater than one year are classified as long-term. The amortized cost of securities in this category is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization is included in interest income. The cost of securities sold or the amount reclassified out of accumulated other comprehensive income into earnings is based on the specific identification method. Realized gains and losses and declines in value judged to be other than temporary are included in the statements of operations. Interest and dividends on securities classified as available-for-sale are included in investment income.

Revenue from Collaboration Agreement: In accordance with ASC Subtopic 808-10, formerly known as Emerging Issues Task Force 07-1, or EITF 07-1, "Accounting for Collaborative Arrangements," we record our share of the pre-tax commercial profit generated from the collaboration with Bayer, reimbursement of our shared marketing costs related to Nexavar and royalty revenue in one line item. "Revenue from collaboration agreement." Our portion of shared collaboration research and development expenses is not included in the line item "Revenue from collaboration agreement," but is reflected under operating expenses. According to the terms of the collaboration agreement, the companies share all research and development, marketing and non-U.S. sales expenses. We and Bayer each bear our own U.S. sales force and medical science liaison expenses. These costs related to our U.S. sales force and medical science liaisons are recorded in selling. general and administrative expenses. Bayer recognizes all revenue under the Nexavar collaboration and incurs the majority of expenses relating to the development and marketing of Nexavar. We are highly dependent on Bayer for timely and accurate information regarding any revenues realized from sales of Nexavar and the costs incurred in developing and selling it, in order to accurately report our results of operations. If we do not receive timely and accurate information or incorrectly estimate activity levels associated with the collaboration of Nexavar at a given point in time, we could be required to record adjustments in future periods and may be required to restate our results for prior periods.

Business Combinations: We accounted for the acquisition of Proteolix in accordance with ASC Topic 805, formerly known as SFAS 141R, "Business Combinations." ASC Topic 805 establishes principles and requirements for recognizing and measuring the total consideration transferred to and the assets acquired and liabilities assumed in the acquired target in a business combination. The consideration paid to acquire Proteolix is required to be measured at fair value and included cash consideration and contingent consideration, which are earnout payments that will be paid upon the receipt of certain regulatory approvals and the satisfaction of other milestones. After the total consideration transferred was calculated by determining the fair value of the contingent consideration plus the cash consideration, we assigned the purchase price of Proteolix to the fair value assets acquired and liabilities assumed. This resulted in recognition of intangible assets related to in-process research and development (IPR&D) projects and goodwill. The determination and allocation of the consideration transferred requires management to make significant estimates and assumptions, especially at the acquisition date with respect to the fair value of the contingent consideration and intangible assets acquired. We believe the fair values assigned to our liability for contingent consideration and acquired intangible assets are based on reasonable estimates and assumptions given the available facts and circumstances as of the acquisition dates. Discounted cash flow models are used in valuing these assets and liabilities, and these models require the use of significant estimates and assumptions including but not limited to:

- estimated cash flows projected from the success of unapproved product candidates;
- the probability of technical and regulatory success for unapproved product candidates considering their stages of development;
- the time and resources needed to complete the development and approval of product candidates;

- the life of the potential commercialized products and associated risks, including the inherent difficulties and uncertainties in developing a product candidate such as obtaining FDA and other regulatory approvals; and
- risk associated with uncertainty, achievement and payment of the milestone events.

Changes to any of these estimates and assumptions could significantly impact the fair values recorded for these assets and liabilities resulting in significant charges to our Consolidated Statement of Operations. In addition, unanticipated events and circumstances may occur which may affect the accuracy or validity of such assumptions, estimates or actual results.

Fair Value Measurements: In accordance with ASC Subtopic 820-10, formerly known as SFAS 157 "*Fair Value Measurements*," we measure certain assets and liabilities at fair value on a recurring basis using the three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value. The three tiers include:

- Level 1, defined as observable inputs such as quoted prices for identical assets in active markets;
- Level 2, defined as inputs other than quoted prices in active markets that are either directly or indirectly observable; and
- Level 3, defined as unobservable inputs in which little or no market data exists, therefore requiring management to develop its own assumptions based on best estimates of what market participants would use in pricing an asset or liability at the reporting date.

Goodwill and Other Intangible Assets: We account for goodwill and other intangible assets in accordance with ASC Topic 805, formerly known as SFAS 141R, "Business Combinations," and ASC Topic 350, formerly known as SFAS 142, "Goodwill and Other Intangible Assets." ASC Topic 805 requires that the purchase method of accounting be used for all business combinations and specifies the criteria that must be met in order for intangible assets acquired in a business combination to be recognized and reported apart from goodwill. Our intangible assets and goodwill are determined to have indefinite lives and, therefore, are not amortized. Instead they are tested for impairment at least annually or whenever events or circumstances occur that indicate impairment might have occurred in accordance with ASC Topic 350. Judgment regarding the existence of impairment indicators will be based on historical and projected future operating results, changes in the manner of our use of the acquired assets or our overall business strategy, and market and economic trends. In the future, events could cause us to conclude that impairment indicators exist and that certain other intangibles with determinable lives and other long-lived assets are impaired resulting in an adverse impact on our financial position and results of operations.

Convertible Senior Notes: In August 2009, we issued, through an underwritten public offering, \$230.0 million aggregate principal amount of 4.0% convertible senior notes due 2016, or the 2016 Notes. The 2016 Notes are accounted for in accordance with ASC Subtopic 470-20, formerly known as FASB Staff Position Accounting Principles Board 14-1. Under ASC Subtopic 470-20 issuers of certain convertible debt instruments that have a net settlement feature and may be settled in cash upon conversion, including partial cash settlement, are required to separately account for the liability (debt) and equity (conversion option) components of the instrument. The carrying amount of the liability component of the 2016 Notes, as of the issuance date, was computed by estimating the fair value of a similar liability issued at a 12.5% effective interest rate, which was determined by considering the rate of return investors would require in our capital structure as well as taking into consideration effective interest rates derived by comparable companies. The amount of the equity component was calculated by deducting the fair value of the liability component from the principal amount of the 2016 Notes and results in a corresponding increase to debt discount. Subsequently, the debt discount is amortized as interest expense through the maturity date of the 2016 Notes.

Stock-Based Compensation: We account for stock-based compensation of stock options granted to employees and directors and of employee stock purchase plan shares by estimating the fair value of stock-based awards using the Black-Scholes option-pricing model and amortizing the fair value of the stock-based awards granted over the applicable vesting period. The Black-Scholes option pricing model includes assumptions regarding dividend yields, expected volatility, expected option term and risk-free interest rates. We estimate expected volatility based upon a combination of historical and implied stock prices. The risk-free interest rate is based on the U.S. treasury yield curve in effect at the time of grant. The expected option term calculation incorporates historical employee exercise

behavior and post-vesting employee termination rates. We account for stock-based compensation of restricted stock award grants by amortizing the fair value of the restricted stock awards grants, which is the grant date market price, over the applicable vesting period.

The net income for the years ended December 31, 2009 and 2008 includes employee stock-based compensation expense of \$21.1 million, or \$0.35 per diluted share, and \$18.8 million, or \$0.33 per diluted share, respectively. The net loss for the year ended December 31, 2007 includes employee stock-based compensation expense of \$14.1 million, or \$0.28 per diluted share. As of December 31, 2009, the total unrecorded stock-based compensation expense for unvested stock options, net of expected forfeitures, was \$38.4 million, which is expected to be amortized over a weighted-average period of 2.6 years.

All stock option awards to non-employees are accounted for at the fair value of the consideration received or the fair value of the equity instrument issued, as calculated using the Black-Scholes model. The option arrangements are subject to periodic remeasurement over their vesting terms. We recorded compensation expense related to option grants to non-employees of \$1.5 million, \$1.7 million and \$1.5 million for the years ended December 31, 2009, 2008 and 2007, respectively.

The assumptions used in computing the fair value of stock-based awards reflect our best estimates, but involve uncertainties relating to market and other conditions, many of which are outside of our control. In addition, our estimate of future stock-based compensation expense will be affected by a number of items including our stock price, the number of stock options our board of directors may grant in future periods, as well as a number of complex and subjective valuation adjustments and the related tax effect. As a result, if other assumptions or estimates had been used, the stock-based compensation expense that was recorded for the years ended December 31, 2009, 2008 and 2007 could have been materially different. Furthermore, if different assumptions are used in future periods, stock-based compensation expense could be materially impacted in the future.

Research and Development Expense: Research and development costs are charged to expense when incurred. The major components of research and development costs include clinical manufacturing costs, clinical trial expenses, non-refundable upfront payments, consulting and other third-party costs, salaries and employee benefits, stock-based compensation expense, supplies and materials and allocations of various overhead and occupancy costs. Clinical trial expenses include, but are not limited to, investigator fees, site costs, comparator drug costs, clinical research organization costs. In addition, our cost accruals for clinical trials are based on estimates of the services received and efforts expended pursuant to contracts with numerous clinical trial sites and clinical research organizations. In the normal course of business, we contract with third parties to perform various clinical trial activities in the on-going development of potential products. The financial terms of these agreements are subject to negotiation and variation from contract to contract and may result in uneven payment flows. Payments under the contracts depend on factors such as the achievement of certain events, the successful enrollment of patients and the completion of portions of the clinical trial or similar conditions. The objective of our accrual policy is to match the recording of expenses in our financial statements to the actual services received and efforts expended. As such, expense accruals related to clinical trials are recognized based on our estimate of the degree of completion of the event or events specified in the specific clinical study or trial contract. We monitor service provider activities to the extent possible; however, if we underestimate activity levels associated with various studies at a given point in time, we could record significant research and development expenses in future periods.

In instances where we enter into agreements with third parties for clinical trials and other consulting activities, up-front payment amounts are capitalized and expensed as services are performed or as the underlying goods are delivered. If we do not expect the services to be rendered or goods to be delivered, any remaining capitalized amounts for non-refundable up-front payments are charged to expense immediately. Amounts due under such arrangements may be either fixed fee or fee for service, and may include upfront payments, monthly payments and payments upon the completion of milestones or receipt of deliverables.

Non-refundable option payments, including those made under our agreement with S*BIO, that do not have any future alternative use are recorded as research and development expense. Not all research and development costs are incurred by us. A significant portion of our research and development expenses, approximately 67% in 2009, 55% in 2008 and 82% in 2007, relates to our cost sharing arrangement with Bayer and represents our share of the research and development costs incurred by Bayer. As a result of the cost sharing arrangement between us and Bayer, there

was a net reimbursable amount of \$63.7 million, \$50.7 million and \$57.9 million to Bayer for the years ended December 31, 2009, 2008 and 2007, respectively. Such amounts were recorded based on invoices and estimates we receive from Bayer. When such invoices have not been received, we must estimate the amounts owed to Bayer based on discussions with Bayer. If we underestimate or overestimate the amounts owed to Bayer, we may need to adjust these amounts in a future period, which could have an effect on earnings in the period of adjustment.

Income Taxes: We use the asset and liability method to account for income taxes in accordance with ASC 740-10, Income Taxes, formerly known as SFAS No. 109, Accounting For Income Taxes. Under this method, deferred tax assets and liabilities are determined based on differences between the financial reporting and tax bases of assets and liabilities. At each balance sheet date, we evaluate the available evidence about future taxable income and other possible sources of realization of deferred tax assets, and record a valuation allowance that reduces the deferred tax assets to an amount that represents management's best estimate of the amount of such deferred tax assets that more likely than not will be realized. Deferred tax assets and liabilities are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

Realization of deferred tax assets is dependent upon future earnings, if any, the timing and the amount of which are uncertain. Accordingly, we continue to maintain a full valuation allowance against our net operating loss carryforwards and other deferred tax assets despite achieving full-year profitability in 2009 and 2008, since, up until 2008, we have had a history of annual losses since inception. On a quarterly basis, we reassess our valuation allowance for deferred income taxes. We will consider reducing the valuation allowance when it becomes more likely than not the benefit of those assets will be realized.

As part of our accounting for the acquisition of Proteolix, we recorded goodwill and intangible assets. Amortization expenses associated with acquired intangible assets are generally not tax deductible; therefore, deferred taxes have been recorded for future non-deductible amortization expenses related to intangible assets as a part of the business combination. In the event of an impairment charge associated with goodwill, such charges are generally not tax deductible and would increase the effective tax rate in the quarter any impairment is recorded.

On January 1, 2007, we adopted the authoritative guidance under ASC 740, formerly *Financial Accounting Standards Board Interpretation No. 48— ("FIN 48")*, which clarifies the accounting for uncertainty in tax positions recognized in the financial statements. Under this guidance, we may recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities based on technical merits of the position. The tax benefits recognized in the financial statements from such a position would be measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement. The adoption of this guidance under ASC 740 had no impact on our financial condition, results of operations, or cash flows for the year ended December 31, 2009, 2008 and 2007 as we had no unrecognized tax benefits.

Results of Operations

Years Ended December 31, 2009, 2008 and 2007

Revenue. Nexavar, our only marketed product, was approved in the United States in December 2005. In accordance with our collaboration agreement with Bayer, Bayer recognizes all revenue from the sale of Nexavar. As such, for the years ended December 31, 2009, 2008 and 2007, we reported no revenue related to Nexavar. Nexavar net sales as recorded by Bayer were \$843.5 million, \$677.8 million and \$371.7 million for the years ended December 31, 2009, 2008 and 2007, respectively, primarily from sales in the United States and the European Union.

Contract Revenue from Collaborations. Contract revenue from collaborations was \$1.0 million in 2009 and zero in 2008 and 2007. Contract revenue from collaborations in 2009 relates to a milestone fee earned when Pfizer initiated Phase 2 clinical testing to advance a lead candidate from our previous cell cycle kinase discovery collaboration.

Revenue from Collaboration Agreement. Nexavar is currently approved in more than 90 countries for the treatment of advanced kidney cancer and in more than 90 countries for the treatment of unresectable liver cancer. We co-promote Nexavar in the United States with Bayer under collaboration and co-promotion agreements. In March 2006, we and Bayer entered into a co-promotion agreement to co-promote Nexavar in the United States. This agreement amends the collaboration agreement and supersedes the provisions of that agreement that relate to the co-promotion of Nexavar in the United States. Outside of the United States, the terms of the collaboration agreement continue to govern. Under the terms of the co-promotion agreement and consistent with the collaboration agreement, we and Bayer share equally in the profits or losses of Nexavar, if any, in the United States, subject only to our continued co-funding of the development costs of Nexavar worldwide outside of Japan and our continued co-promotion of Nexavar in the United States. The collaboration was created through a contractual arrangement, not through a joint venture or other legal entity.

Outside of the United States, excluding Japan, Bayer incurs all of the sales and marketing expenditures, and we reimburse Bayer for half of those expenditures. In addition, for sales generated outside of the United States, excluding Japan, we reimburse Bayer a fixed percentage of sales for their marketing infrastructure. Research and development expenditures on a worldwide basis, excluding Japan, are equally shared by both companies regardless of whether we or Bayer incurs the expense. In Japan, Bayer is responsible for all development and marketing costs and we receive a royalty on net sales of Nexavar.

In the United Sates, Bayer provides all product distribution and all marketing support services for Nexavar, including managed care, customer service, order entry and billing. We compensate Bayer for distribution expenses based on a fixed percentage of gross sales of Nexavar in the United States. We reimburse Bayer for half of its expenses for marketing services provided by Bayer for the sale of Nexavar in the United States. We and Bayer share equally in any other out-of-pocket marketing expenses (other than expenses for sales force and medical science liaisons) that we and Bayer incur in connection with the marketing and promotion of Nexavar in the United States. Bayer manufactures all Nexavar sold and is reimbursed at an agreed transfer price per unit for the cost of goods sold in the United States.

In the United States, we contribute half of the overall number of sales force personnel required to market and promote Nexavar and half of the medical science liaisons to support Nexavar. We and Bayer each bear our own sales force and medical science liaison expenses. These expenses are not included in the calculation of the profits or losses of the collaboration.

Revenue from collaboration agreement consists of our share of the pre-tax commercial profit generated from our collaboration with Bayer, reimbursement of our shared marketing costs related to Nexavar and royalty revenue. Under the collaboration, Bayer recognizes all sales of Nexavar worldwide. We record revenue from collaboration agreement on a quarterly basis. Revenue from collaboration agreement is derived by calculating net sales of Nexavar to third-party customers and deducting the cost of goods sold, distribution costs, marketing costs (including without limitation, advertising and education expenses, selling and promotion expenses, marketing personnel expenses and Bayer marketing services expenses), Phase 4 clinical trial costs and allocable overhead costs. Reimbursement by Bayer of our shared marketing costs related to Nexavar and royalty revenue are also included in the "Revenue from collaboration agreement" line item.

Our portion of shared collaboration research and development expenses is not included in this line item, but is reflected under operating expenses. According to the terms of the collaboration agreement, the companies share all research and development, marketing and non-U.S. sales expenses. United States sales force and medical science liaison expenditures incurred by both companies are borne by each company separately and are not included in the calculation. Some of the revenue and expenses recorded to derive the revenue from collaboration agreement during the period presented are estimates of both parties and are subject to further adjustment based on each party's final review should actual results differ from these estimates. If we do not receive timely and accurate information or incorrectly estimate activity levels associated with the collaboration of Nexavar at a given point in time, we could be required to record adjustments in future periods and may be required to restate our results for prior periods. Revenue from

collaboration agreement increases with increased Nexavar net revenue, or decreases with decreased Nexavar net revenue, over and above the associated cost of goods sold, distribution, selling and general administrative expenses. Increases to the associated costs of goods sold, distribution, selling and general and administrative expenses will decrease revenue from collaboration agreement and decreases to these costs will increase revenue from collaboration agreement. We expect Nexavar sales and Bayer's and our shared cost of goods sold, distribution, selling and general administrative expense to increase with the approval of Nexavar for advanced kidney cancer and unresectable liver cancer as Bayer continues to expand Nexavar marketing and sales activities outside of the United States.

Revenue from collaboration agreement was \$250.4 million, \$194.3 million and \$90.4 million and for the years ended December 31, 2009, 2008 and 2007, respectively. The increase in revenue from collaboration agreement is primarily a result of increased net product revenue on sales of Nexavar as recorded by Bayer of \$843.5 million for the year ended December 31, 2009 as compared to \$677.8 million for the year ended December 31, 2008 and \$371.7 million for the year ended December 31, 2007 for the year ended December 31, 2006. The increase in net product revenue was offset by increased costs to sell, distribute and market in countries around the world. Revenue from collaboration agreement is calculated as follows:

| | Yea | r Ended December | 31, |
|---|------------|------------------|------------|
| | 2009 | 2008 | 2007 |
| | | (In thousands) | |
| Nexavar product revenue, net (as recorded by Bayer) | \$ 843,470 | \$ 677,806 | \$ 371,736 |
| Revenue subject to profit sharing (as recorded by Bayer) | \$ 753,340 | \$ 637,459 | \$ 371,736 |
| Combined cost of goods sold, distribution, selling, general and | | | |
| administrative | 312,205 | 298,792 | 223,682 |
| Combined collaboration commercial profit | \$ 441,135 | \$ 338,667 | \$ 148,054 |
| Onyx's share of collaboration commercial profit | 220,567 | 169,334 | 74,027 |
| Reimbursement of Onyx's shared marketing expenses | 23,514 | 22,185 | 16,402 |
| Royalty income | 6,309 | 2,824 | |
| Revenue from collaboration agreement | \$ 250,390 | \$ 194,343 | \$ 90,429 |

Research and Development Expenses. Research and development expenses, as compared to prior years were as follows:

| | For the | e Year Ending Decem | iber 31, | 2009 vs 2 | | 2008 vs 2007 | |
|--------------------------|------------|---------------------|----------------------|--------------|-----|--------------|------|
| | 2009 | 2008 | 2007 | \$ | % | \$ | % |
| | | • | (In thousands, excep | percentages) | | | |
| Research and development | \$ 128,506 | \$ 123,749 | \$ 83.306 | \$ 4.757 | 4% | \$ 40.443 | 49% |
| development | \$ 120,500 | \$ 123,749 | \$ 65,500 | \$ 4,737 | 4/0 | \$ 40,443 | 49/0 |

The 2009 increase in research and development expenses compared to 2008 is primarily due to planned increases in the development program for Nexavar across additional tumor types, such as thyroid, colorectal and adjuvant liver cancer, as well as increased costs to further develop ONX 0801, including a milestone payment of \$7.0 million to BTG, partially offset by decreased spending for lung cancer trials. Research and development expenses also included stock-based compensation of \$3.6 million in 2009 compared to \$2.7 million in 2008. We expect that Bayer and we will continue to expand our investment in the development of Nexavar by conducting clinical trials to test Nexavar's efficacy in more prevalent tumor types in future periods. Additionally, we expect our research and development activities to include developing carfilzomib, ONX 0801 and our other product candidates.

The 2008 increase in research and development expenses when compared to 2007 was primarily due to \$33.8 million of upfront payments related to our development and license agreement with BTG and development collaboration, option and license agreement with S*BIO and costs related to the Phase 2 breast trials. Research and development expenses also included lower stock-based compensation of \$2.7 million in 2008 when compared to \$4.2 million in 2007.

A significant portion of our research and development expenses, approximately 67% in 2009, 55% in 2008 and 82% in 2007, relates to our cost sharing arrangement with Bayer and represents our share of the research and development costs incurred by Bayer. As a result of the cost sharing arrangement between us and Bayer, there was a net reimbursable amount of \$63.7 million, \$50.7 million and \$57.9 million to Bayer for the years ended

Change

December 31, 2009, 2008 and 2007, respectively. Such amounts were recorded based on invoices and estimates we receive from Bayer. When such invoices have not been received, we must estimate the amounts owed to Bayer based on discussions with Bayer. If we underestimate or overestimate the amounts owed to Bayer, we may need to adjust these amounts in a future period, which could have an effect on earnings in the period of adjustment.

The major components of research and development costs include clinical manufacturing costs, clinical trial expenses, non-refundable upfront payments, consulting and other third-party costs, salaries and employee benefits, stock-based compensation expense, supplies and materials and allocations of various overhead and occupancy costs. The scope and magnitude of future research and development expenses are difficult to predict at this time given the number of studies that will need to be conducted for any of our potential product candidates. In general, biopharmaceutical development involves a series of steps beginning with identification of a potential target and includes proof of concept in animals and Phase 1, 2 and 3 clinical studies in humans, each of which is typically more expensive than the previous step.

The following table summarizes our principal product development initiatives, including the related stages of development for each product in development and the research and development expenses recognized in connection with each product. The information in the column labeled "Phase of Development — Estimated Completion" is only our estimate of the timing of completion of the current in-process development phases based on current information. The actual timing of completion of those phases could differ materially from the estimates provided in the table. We cannot reasonably estimate the timing of completion of each clinical phase of our development programs due to the risks and uncertainties associated with developing pharmaceutical product candidates. The clinical development portion of these programs may span as many as seven to ten years, and estimation of completion dates or costs to complete would be highly speculative and subjective due to the numerous risks and uncertainties associated with developing biopharmaceutical products, including significant and changing government regulation, the uncertainty of future preclinical and clinical study results and uncertainties associated with process development and manufacturing as well as marketing. For a discussion of the risks and uncertainties associated with the timing and cost of completing a product development phase, see Item 1A "Risk Factors" of this Annual Report on Form 10-K.

| Products/ | | Collabo- | Phase of Development — | | | | Research and evelopment Expenses For the Year Ended December 31, | | |
|--------------------------------------|---|------------|--|----|----------|----|---|----|---------|
| Product Candidates | Description | rator | Estimated Completion | | 2009 | | 2008 (In millions) | | 2007 |
| Nexavar (sorafenib) Tablets(1) | Small molecule inhibitor of tumor cell proliferation and angiogenesis, targeting RAF, VEGFR-2, PDGFR-B, KIT, FLT-3 and RET. | Bayer | Phase 1 — 2004 Phase 2 — Unknown Phase 3 — Unknown | \$ | 101.4(2) | \$ | 89.8 (2) | \$ | 83.3(2) |
| Carfilzomib | Proteasome inhibitor | - | Phase 2 — Unknown Phase 3 — Planned | | 8.5(3) | | <u>-</u> | | - |
| ONX 0801 | Compound targeting apha-folate receptor and inhibiting thymidylate synthase | BTG | Phase 1; Phase 2 — Planned | | 16.7 (4) | | 13.1 (4) | | _ |
| ONX 0912 | Oral proteasome inhibitor | - | Phase 1 — Unknown | | - | | - | | - |
| ONX 0914 | Immunoproteasome inhibitor | - | Preclinical | | 0.1(3) | | - | | - |
| ONX 0803, ONX 0805 | Janus Kinase 2 Inhibitors | S*BIO | Phase 1 & Phase 2 — Unknown, Preclinical | | 0.7 | | 20.8(5) | | - |
| Other | - | - | - | _ | 1.1 | _ | | _ | - |
| | Total re | esearch an | d development expenses | \$ | 128.5 | \$ | 123.7 | \$ | 83.3 |

⁽¹⁾ Aggregate research and development costs to date through December 31, 2009 incurred by us since fiscal year 2000 for the Nexavar project is \$493.5 million.

⁽²⁾ Costs reflected include our share of product development costs incurred by Bayer for Nexavar.

- (3) Costs reflected are from the date of acquisition, November 16, 2009, through December 31, 2009.
- (4) Costs include a \$13.0 million upfront payment and \$7.0 milestone payment made to BTG under our development and license agreement.
- (5) Costs refer to the nonrefundable upfront payment made to S*BIO under our development collaboration, option and license agreement.

Selling, General and Administrative Expenses. Selling, general and administrative expenses, as compared to prior years were as follows:

| | For the | Year Ending Decen | 2009 vs 2 | | 2008 vs 2007 | | |
|----------------------|------------|-------------------|-------------------|-------------------|--------------|-----------|-----|
| | 2009 | 2008 | 2007 | \$ | % | \$ | % |
| | | | (In thousands, ex | cept percentages) | | | |
| Selling, general and | | | | | | | |
| administrative | \$ 101,132 | \$ 80,994 | \$ 60,546 | \$ 20,138 | 25% | \$ 20,448 | 34% |

The 2009 increase in selling, general and administrative expenses when compared to 2008 is primarily due to increased headcount and increased employee-related expenses to support Nexavar's commercial growth, as well as increased headcount and legal and employee-related expenses to support our growth. Selling, general and administrative expenses also included stock-based compensation of \$17.5 million in 2009 compared to \$17.8 million in 2008.

The 2008 increase in selling, general and administrative expenses when compared to 2007 was primarily due to us incurring more of the shared marketing expenses in the United States and an increase in headcount in our commercial and administrative functions, including executive and corporate development, needed to support our growth and other salary related expenses, including bonuses. Selling, general and administrative expenses also included stock-based compensation of \$17.8 million in 2008 compared to \$11.4 million in 2007. Additionally, the year ended December 31, 2008 included non-recurring employee related expenses consisting of \$2.3 million for modifications of previously granted stock-based awards to employees and \$2.0 million for compensation, search fees and other expenses related to the transition of the chief executive officer.

Selling, general and administrative expenses consist primarily of salaries, employee benefits, stock-based compensation expense, selling and promotions, consulting, other third party costs, corporate functional expenses and allocations for overhead and occupancy costs.

Investment Income, net. Investment income consists of interest income and realized gains or losses from the sale of marketable equity investments. We had investment income of \$4.0 million for the year ended December 31, 2009, a decrease of \$8.7 million, or 69%, from \$12.7 million in the same period in 2008. These decreases were primarily due to lower effective interest rates in the market as well as a change in the asset allocation of our investment portfolio. Excluding restricted cash of \$27.6 million attributable to the escrow account for the acquisition of Proteolix, our average cash balances in 2009 increased by \$129.2 million from 2008, primarily as a result of net proceeds raised by our 2016 Notes and equity financings in August 2009 secondary offering from which we received \$356.7 million, net of underwriting discounts and commissions, and cash from operations of \$35.1 million partially offset by total cash consideration of \$276.0 million paid to former Proteolix stockholders as a result of our recent acquisition of Proteolix.

We had investment income of \$12.7 million in 2008, a decrease of \$6.6 million from 2007, primarily due to lower interest rates from the change in the asset allocation of our investment portfolio. Our average cash balances in 2007 benefited from our June 2007 sale of equity securities from which we received approximately \$174.2 million in net cash proceeds, and our April 2007 sale of equity securities to Azimuth Opportunity Ltd., or Azimuth, from which we received approximately \$30.8 million.

Interest Expense. Interest expense of \$6.9 million in 2009 primarily relates to the 2016 Notes issued in August 2009, and includes non-cash imputed interest expense of \$3.1 million as a result of the application of ASC Subtopic 470-20, formerly known as FASB Staff Position Accounting Principles Board 14-1.

Income Taxes. With the exception of the years ended December 31, 2009 and 2008, we have incurred significant losses since our inception and, as a result, we have not recorded a provision for income taxes for any of the periods presented prior to the year ended December 31, 2008. For the years ended December 31, 2009 and 2008, we

recorded a provision for income taxes of \$1.2 million and \$0.3 million, respectively, related to continuing operations. Our tax expense was related primarily to federal alternative minimum tax and state income taxes.

As of December 31, 2009, our net operating loss carryforwards for federal and state income tax purposes were approximately \$487.8 million and \$428.1 million, respectively, including federal and state net operating loss carryforwards of approximately \$121.4 million, as a result of the acquisition of Proteolix, Inc. These net operating losses can be utilized to reduce future taxable income, if any. Approximately \$28.8 million of the federal and \$27.1 million of the state valuation allowance for the deferred tax assets relate to net operating loss carryforwards representing the stock option deduction arising from activity under our stock option plan, the benefit of which will increase additional paid in capital when realized. The federal net operating loss carryforwards expire beginning in 2018 through 2028, and the state net operating loss carryforwards expire beginning in 2014 through 2029 and may be subject to certain limitations. We also had research tax credit and orphan drug credit carryforwards of approximately \$44.2 million for federal income tax purposes, including approximately \$2.8 million as a result of the Proteolix acquisition, that expire beginning in 2010 through 2029 and \$7.1 million for California income tax purposes, including approximately \$2.9 million as a result of the Proteolix acquisition, that do not expire.

Utilization of the net operating loss and tax credit carryforwards may be subject to substantial annual limitations due to ownership change limitations provided by the Internal Revenue Code of 1986, as amended, and similar state provisions. As a result of these provisions, utilization of our net operating losses would be limited in the event of any future significant ownership changes. These annual limitation may result in the expiration of net operating losses and tax credit carryforwards before utilization. Please refer to Note 17 of the accompanying consolidated financial statements for further information regarding income taxes.

Acquired In-Process Research and Development

Intangible assets for in-process research and development, or IPR&D, consists primarily of product candidates resulting from our acquisition of Proteolix, including carfilzomib, ONX 0912 and ONX 0914. We determined that the combined estimated fair values of carfilzomib, ONX 0912 and ONX 0914 was \$438.8 million as of November 16, 2009. We used an income approach, which is a measurement of the present value of the net economic benefit or cost expected to be derived from an asset or liability, to measure the fair value of carfilzomib and a cost approach to measure the fair values of ONX 0912 and ONX 0914. Under the income approach, an intangible asset's fair value is equal to the present value of the incremental after-tax cash flows (excess earnings) attributable solely to the intangible asset over its remaining useful life. Under the cost approach, an intangible asset's fair value is equal to the costs incurred to-date to develop the asset to its current stage.

To calculate fair value of carfilzomib under the income approach, we used probability-weighted cash flows discounted at a rate considered appropriate given the inherent risks associated with this type of asset. We estimated the fair value of this asset using a present value discount rate based on the estimated weighted-average cost of capital for companies with profiles substantially similar to that of Proteolix. This is comparable to the estimated internal rate of return for Proteolix's operations and represents the rate that market participants would use to value this asset. Cash flows were generally assumed to extend either through or beyond the patent life of the asset, depending on the circumstances particular to the asset. In addition, we compensated for the phase of development for this program by probability-adjusting our estimation of the expected future cash flows. We believe that the level and timing of cash flows appropriately reflect market participant assumptions. The projected cash flows from this project were based on key assumptions such as estimates of revenues and operating profits related to the project considering its stage of development; the time and resources needed to complete the development and approval of the related product candidate; the life of the potential commercialized product and associated risks, including the inherent difficulties and uncertainties in developing a drug compound such as obtaining marketing approval from the FDA and other regulatory agencies; and risks related to the viability of and potential alternative treatments in any future target markets. The resultant probability-weighted cash flows were then discounted using a rate we believe is appropriate and representative of a market participant assumption.

For the other two intangible assets acquired, ONX 0912 and 0914, we used the costs incurred to-date by Proteolix to develop these assets to their current stage as their fair value as result of the lack of financial projections for these assets in their current development stages.

These IPR&D programs represent Proteolix's incomplete research and development projects which had not yet reached technological feasibility at acquisition. A summary of these programs and estimated fair values at the Acquisition Date, as well as status of development is as follows:

| Product Candidates | | Acq I | uisition Date Fair Value | | |
|---------------------|---|----------------|--------------------------|--|--|
| 1 Todate Candidates | Description | (In thousands) | | | |
| Carfilzomib | First in a new class of selective and irreversible proteasome inhibitors associated with prolonged target suppression, improved antitumor activity and low neurotoxicity for treatment against multiple myeloma and solid tumors. | \$ | 435,000 | | |
| | | | | | |
| ONX 0912 | Oral proteasome inhibitor for treatment against hematologic and solid tumors. | | 3,500 | | |
| ONX 0914 | Immunoproteasome inhibitor for treatment against rheumatoid arthritis and inflammatory bowel disease. | | 300 | | |
| | | \$ | 438,800 | | |

Related Party Transactions

Our related parties consist of our directors and officers. At December 31, 2009, we had a loan with a non-executive employee of which \$151,000 was outstanding. The loan bears interest at 0.72% per annum and is payable in a lump sum within eighteen months from the date of the loan.

Liquidity and Capital Resources

Beginning with our fiscal years ended December 31, 2008, we began reporting net income from our operations, primarily as a result of revenues earned from sales of Nexavar through our collaboration agreement with Bayer. Prior to that, we had incurred significant losses since our inception and had relied primarily on public and private financing, combined with milestone payments we received from our collaborators, to fund our operations.

At December 31, 2009, we had cash, cash equivalents and current and non-current marketable securities of \$587.3 million, excluding \$27.6 million of restricted cash, compared to \$458.0 million at December 31, 2008. The increase of \$129.3 million was primarily attributable to \$356.7 million in net proceeds raised by our 2016 Notes and equity financings in August 2009 and cash from operations of \$35.1 million, partially offset by our cash payment, net of cash acquired, of \$252.5 million to former Proteolix stockholders in conjunction with our acquisition of Proteolix in November 2009 and a \$7.0 milestone payment to BTG.

At December 31, 2008, we had cash, cash equivalents and current and non-current marketable securities of \$458.0 million, compared to \$469.7 million at December 31, 2007. The \$11.7 million decrease in cash, cash equivalents and marketable securities in 2008 is primarily due to \$38.0 million of upfront payments related to our development and license agreement with BTG and development collaboration, option and license agreement with S*BIO partially offset by the remaining cash provided by operations and net cash proceeds from the exercise of stock options for the year ended December 31, 2008.

In 2009, our cash provided by operations was \$35.1 million, compared to cash used in operations of \$8.4 million and \$26.4 million in 2008 and 2007, respectively. In 2009, the cash provided by operations primarily related to net income earned for the year. In 2008 and 2007, the cash used in operations primarily related to net losses for the 2008 and 2007 periods, respectively. Expenditures for capital equipment amounted to approximately \$1.3 million in 2009, \$1.6 million in 2008 and \$2.7 million in 2007. Capital expenditures in 2009, 2008 and 2007 were primarily for equipment to accommodate our employee growth.

In September 2006, we secured a commitment for up to \$150.0 million in a common stock purchase agreement with Azimuth. During the two-year term of the commitment, we were able to sell, at our discretion, registered shares of our common stock to Azimuth at a discount to the market price ranging from 3.30% to 5.05%. Under this commitment, Azimuth purchased an aggregate of 5,573,010 shares of our common stock, or \$106.0 million. In

April 2007, Azimuth purchased 1,246,912 shares of our common stock for a purchase price of \$31.0 million resulting in approximately \$30.8 million in net cash proceeds received by us. In October and November 2006, Azimuth purchased an aggregate of 4,326,098 shares of our common stock under the purchase agreement for an aggregate purchase price of \$75.0 million, resulting in approximately \$74.4 million in net cash proceeds received by us. This commitment has expired and has no further availability remaining.

Our investment portfolio includes \$39.3 million of AAA rated securities with an auction reset feature, or auction rate securities, that are collateralized by student loans. In January 2010, \$0.1 million in securities were redeemed at par and, accordingly, we classified them as current marketable securities in the accompanying Consolidated Balance Sheet at December 31, 2009. Therefore, a remaining balance of \$39.2 million of par value auction rate securities is currently outstanding in our investment portfolio. Since February 2008, these types of securities have experienced failures in the auction process. However, a limited number of these securities have been redeemed at par by the issuing agencies. As a result of the auction failures, interest rates on these securities reset at penalty rates linked to LIBOR or Treasury bill rates. The penalty rates are generally higher than interest rates set at auction. Based on the overall failure rate of these auctions, the frequency of the failures, the underlying maturities of the securities, a portion of which are greater than 30 years, and our belief that the market for these student loan collateralized instruments may take in excess of twelve months to fully recover, we have classified the auction rate securities with a par value of \$39.2 million as non-current marketable securities on the accompanying Consolidated Balance Sheet. We have determined the fair value to be \$37.2 million for these securities, based on a discounted cash flow model, and have reduced the carrying value of these marketable securities by \$2.0 million through accumulated other comprehensive income (loss) instead of earnings because we have deemed the impairment of these securities to be temporary. Further adverse developments in the credit market could result in an impairment charge through earnings in the future. The discounted cash flow model used to value these securities is based on a specific term and liquidity assumptions. An increase in either of these assumptions could result in a \$1.6 million decrease in value. Alternatively, a decrease in either of the assumptions could result in a \$1.6 million increase in value.

Currently, we believe these investments are not other-than-temporarily impaired as all of them are substantially backed by the federal government, but it is not clear in what period of time they will be settled. We believe that, even after reclassifying these securities to non-current assets and the possible requirement to hold all such securities for an indefinite period of time, our remaining cash and cash and current marketable securities will be sufficient to meet our anticipated cash needs beyond 2011.

With our acquisition of Proteolix, we anticipate our operating costs to increase in 2010 as we incur expenses towards the development of carfilzomib, ONX 0912 and ONX 0914. In addition, the terms of the agreement and plan of merger dated October 12, 2009 provide that we may be required to pay up to an additional \$575.0 million in earnout payments upon the receipt of certain regulatory approvals and the satisfaction of other milestones. Of this amount, we expect the first earnout payment of \$40.0 million to be paid in 2010.

We believe that our existing capital resources and interest thereon will be sufficient to fund our current and planned operations beyond 2011. However, if we change our development plans, including acquiring or developing additional product candidates or complementary businesses, we may need additional funds sooner than we expect. We anticipate that our co-development costs for the Nexavar program may increase over the next several years as we continue to fund our share of the clinical development program and prepare for the potential product launches throughout the world. In addition, we anticipate that we will incur expenses for the development of ONX 0801 and, if we exercise one or both of our options, ONX 0803 and ONX 0805, we will be required to pay significant license fees and will incur development expenses. While these costs are unknown at the current time, we may need to raise additional capital to continue the co-funding of the program in future periods beyond 2010. We intend to seek any required additional funding through collaborations, public and private equity or debt financings, capital lease transactions or other available financing sources. Additional financing may not be available on acceptable terms, if at all. If additional funds are raised by issuing equity securities, substantial dilution to existing stockholders may result. If adequate funds are not available, we may be required to delay, reduce the scope of or eliminate one or more of our development programs or to obtain funds through collaborations with others that are on unfavorable terms or that may require us to relinquish rights to certain of our technologies, product candidates or products that we would otherwise seek to develop on our own.

Contractual Obligations and Commitments

Our contractual obligations for the next five years and thereafter are as follows:

| | Payments Due by Period | | | | | | | | | |
|-----------------------------------|------------------------|---------|----|----------|----------|------------|----|--------|----|----------|
| | | | I | ess than | | 1-3 | | 3-5 | | After |
| Contractual Obligations | _ | Total | | 1 Year | <u>,</u> | Years | _ | Years | _ | 5 Years |
| | | | | | (In | thousands) | | | | |
| Convertible senior notes due | | | | | | | | | | |
| 2016 | \$ | 294,400 | \$ | 9,200 | \$ | 18,400 | \$ | 18,400 | \$ | 248,400 |
| Liability for contingent | | | | | | | | | | |
| consideration | | 40,000 | | 40,000 | | (1) | | (1) | | (1) |
| Operating leases, net of sublease | | | | | | | | | | |
| income | | 20,098 | | 4,328 | | 9,239 | | 6,531 | | <u>-</u> |
| | \$ | 354,498 | \$ | 53,528 | \$ | 27,639 | \$ | 24,931 | \$ | 248,400 |

⁽¹⁾ The terms of the agreement and plan of merger dated October 12, 2009 for the acquisition of Proteolix provide that we may be required to pay up to an additional \$575.0 million in earnout payments upon the receipt of certain regulatory approvals and the satisfaction of other milestones. Of this amount, we expect the first earnout payment of \$40.0 million to be paid in 2010. The remaining amount of \$535.0 million is not included in the above table as the timing and payment amounts are unknown. See Note 4 "Acquisition of Proteolix" of the accompanying consolidated financial statements for further information regarding the amounts payable to former stockholders of Proteolix.

Our corporate headquarters, including our principal offices, are located in Emeryville, California. We began occupying these premises in December 2004 and lease a total 60,000 square feet of office space, which expire in 2013. As a result of the acquisition of Proteolix, we acquired a lease for 67,000 square feet of office and laboratory space in South San Francisco, California, which has a remaining period of five years with the option to extend the lease for two additional one-year terms. In addition, we lease 9,000 square feet of space in Richmond, California that is currently subleased through September 2010. Please refer to Note 11, "Facility Leases," of the accompanying consolidated financial statements for further information regarding our lease obligations.

We previously received \$40.0 million in development payments from Bayer pursuant to the collaboration agreement. These development payments contain no provision for interest and are repayable to Bayer from a portion of our share of collaboration profits after deducting certain contractually agreed upon expenditures. In 2009, we repaid all development payments due Bayer under this collaboration agreement.

Recent Accounting Pronouncements

In June 2009, the FASB issued SFAS No. 166, "Accounting for Transfers of Financial Assets — an amendment of FASB Statement No. 140", or SFAS 166, which requires additional information regarding transfers of financial assets, including securitization transactions, and where companies have continuing exposure to the risks related to transferred financial assets. SFAS 166 eliminates the concept of a "qualifying special-purpose entity," changes the requirements for derecognizing financial assets and requires additional disclosures. This statement is effective as of the beginning of the first fiscal year that begins after November 15, 2009 and has currently not been codified in the ASC. This statement will be effective for us in fiscal year 2010, and we are still assessing the potential impact of adoption, if any.

In June 2009, the FASB issued SFAS 167, "Amendments to FASB Interpretation No. 46(R)," which amends the consolidation guidance applicable to variable interest entities. The amendments will significantly affect the overall consolidation analysis under FASB Interpretation No. 46(R). This statement is effective as of the beginning of the first fiscal year that begins after November 15, 2009 and has currently not been codified in the ASC. This statement will be effective for us in fiscal year 2010, and we are still assessing the potential impact of adoption, if any.

On September 23, 2009, the FASB ratified ASC Subtopic 605-25, formerly known as Emerging Issues Task Force, or EITF, Issue No. 08-1, "Revenue Arrangements with Multiple Deliverables." ASC Subtopic 605-25 provides principles and application guidance on whether multiple deliverables exist, how the arrangement should be separated, and the consideration allocated. It also requires an entity to allocate revenue in an arrangement using estimated selling prices of deliverables if a vendor does not have vendor-specific objective evidence or third-party

evidence of selling price. This statement is effective for fiscal years beginning on or after June 15, 2010 with earlier adoption permitted. We are still assessing the potential impact of adoption, if any.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Interest Rate and Market Risk

The primary objective of our investment activities is to preserve principal while at the same time maximize the income we receive from our investments without significantly increasing risk. Our exposure to market rate risk for changes in interest rates relates primarily to our investment portfolio. This means that a change in prevailing interest rates may cause the principal amount of the investments to fluctuate. Under our policy, we minimize risk by placing our investments with high quality debt security issuers, limit the amount of credit exposure to any one issuer, limit duration by restricting the term, and hold investments to maturity except under rare circumstances.

We maintain our portfolio of cash equivalents and marketable securities in a variety of securities, including commercial paper, money market funds, auction rate notes, investment grade government and non-government debt securities. Through our money managers, we maintain risk management control systems to monitor interest rate risk. The risk management control systems use analytical techniques, including sensitivity analysis. If market interest rates were to increase or decrease by 100 basis points, or 1%, as of December 31, 2009, the fair value of our portfolio would decline or increase, respectively, by approximately \$2.4 million. Additionally, a hypothetical increase or decrease of 1% in market interest rates for the year ended December 31, 2009 would have resulted in a \$5.7 million change in our investment income for the year ended December 31, 2009.

The table below presents the amounts and related weighted interest rates of our cash equivalents and marketable securities at December 31,:

| | <u></u> | 2009 | | 2008 | | | | | |
|---|---------------|-----------------------------|-----------------------------|---------------|-----------------------------|-----------------------------|--|--|--|
| | Maturity | Fair Value (In millions) | Average Interest Rate | Maturity | Fair Value (In millions) | Average Interest Rate | | | |
| Cash equivalents, fixed rate Marketable | 0 — 3 months | \$ 103.2 | 0.11% | 0 — 3 months | \$ 233.8 | 0.53% | | | |
| securities, fixed rate | 0 — 12 months | \$ 479.6 | 0.53% | 0 — 12 months | \$ 222.9 | 0.87% | | | |

Our 2016 Notes, with a total par value of \$230.0 million at December 31, 2009, bear interest at a fixed rate of 4.0%. Due to the fixed interest rate, we have no exposure to interest rate fluctuations. However, underlying market risk exists related to an increase in our stock price which may make the conversion of our 2016 Notes to common stock beneficial to the holders of such notes. Conversion of the 2016 Notes would have a dilutive effect on any future earnings and book value per common share.

Liquidity Risk

Our investment portfolio includes \$39.3 million of AAA rated auction rate securities collateralized by student loans. In January 2010, \$0.1 million in securities were redeemed at par and, accordingly, we classified them as current marketable securities in the accompanying Consolidated Balance Sheet at December 31, 2009. Therefore, a remaining balance of \$39.2 million of par value auction rate securities is currently outstanding in our investment portfolio. Since February 2008, securities of this type have experienced failures in the auction process. However, a limited number of these securities have been redeemed at par by the issuing agencies. As a result of the auction failures, interest rates on these securities reset at penalty rates linked to LIBOR or Treasury bill rates. The penalty rates are generally higher than interest rates set at auction. Based on the overall failure rate of these auctions, the frequency of the failures, the underlying maturities of the securities, a portion of which are greater than 30 years, and our belief that the market for these student loan collateralized instruments may take in excess of twelve months to fully recover, we have classified the auction rate securities with a par value of \$39.2 million as non-current marketable securities on the accompanying Consolidated Balance Sheet. We have determined the fair value to be \$37.2 million for these securities, based on a discounted cash flow model, and have reduced the carrying value of these marketable securities by \$2.0 million through accumulated other comprehensive income (loss) instead of earnings because we have deemed the impairment of these securities to be temporary.

Foreign Currency Exchange Rate Risk

A majority of Nexavar sales are generated outside of the United States, and a significant percentage of Nexavar commercial and development expenses are incurred outside of the United States. Under our collaboration agreement, we are currently funding 50% of mutually agreed development costs worldwide, excluding Japan. In all foreign countries, except Japan, Bayer first receives a portion of product revenues to repay Bayer for its foreign commercialization infrastructure, after which we receive 50% of net profits on sales of Nexavar. Bayer is funding 100% of development costs in Japan and pays us a single-digit royalty on Nexavar sales in Japan. Therefore, when these sales and expenses are translated into U.S. dollars by Bayer in determining amounts payable to us or payable by us, we are exposed to fluctuations in foreign currency exchange rates. The primary foreign currency in which we have exchange rate fluctuation exposure is the Euro. A hypothetical increase or decrease of 1% in exchange rates between the Euro and U.S. Dollar during the year ended December 31, 2009 would have resulted in a \$0.7 million change in our net income for the year ended December 31, 2009 based on our expected exposure to the Euro. We utilize a Euro to U.S. Dollar exchange rate based on average exchange rates for the reporting period.

As we expand, we could be exposed to exchange rate fluctuation in other currencies. Exchange rates between foreign currencies and U.S. dollars have fluctuated significantly in recent years and may do so in the future. We did not hold any derivative instruments as of December 31, 2009, and we have not held derivative instruments in the past. However, our investment policy does allow us to use derivative financial instruments for the purposes of hedging foreign currency denominated obligations. Our cash flows are denominated in U.S. dollars.

Item 8. Consolidated Financial Statements and Supplementary Data

Our Consolidated Financial Statements and notes thereto appear on pages 67 to 102 of this Annual Report on Form 10-K.

Item 9. Changes In and Disagreements With Accountants on Accounting and Financial Disclosure Not applicable.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures: The Company's chief executive officer and principal financial officer reviewed and evaluated the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended). Based on that evaluation, the Company's chief executive officer and principal financial officer concluded that the Company's disclosure controls and procedures were effective at the reasonable assurance level as of December 31, 2009 to ensure the information required to be disclosed by the Company in this Annual Report on Form 10-K is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms.

Management's Report on Internal Control over Financial Reporting: The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934, as amended). Under the supervision and with the participation of the Company's management, including the chief executive officer and principal financial officer, the Company conducted an evaluation of the effectiveness of 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, or COSO in Internal Control-Integrated Framework. The Company's management has concluded that, as of December 31, 2009, the Company's internal control over financial reporting is effective at the reasonable assurance level based on these criteria.

Management's evaluation excluded the internal controls of Onyx Therapeutics, Inc. (formerly Proteolix, Inc.), which it acquired on November 16, 2009. Onyx Therapeutics, Inc. (formerly Proteolix, Inc.) is included in our 2009 consolidated financial statements and constituted 49% of total assets and 36% of net assets as of December 31, 2009 and no net revenues, 4% of operating expenses and a net loss, which reduced consolidated net income by 53%. In accordance with guidance issued by the SEC, companies are allowed to exclude acquisitions from their assessment

of internal controls over financial reporting during the first year subsequent to the acquisition while integrating the acquired operations.

The effectiveness of our internal control over financial reporting as of December 31, 2009 has been audited by Ernst & Young LLP, our independent registered public accounting firm, as stated in their attestation report, which is included herein.

Changes in Internal Control over Financial Reporting: As a result of our acquisition of Proteolix in November 2009, we have expanded our internal control over financial reporting to include consolidation of Proteolix's results of operations, as well as acquisition-related accounting and disclosures. We are in the process of evaluating and assessing whether these expanded internal controls have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. Although we have expended significant resources, such evaluation and assessment is ongoing. Since Proteolix operated as a private company, they were not required to, and did not complete the documentation, testing and possible remediation efforts that would have been required had they been subject to Section 404 of the Sarbanes-Oxley Act of 2002 (Section 404). As it was not possible for us to conduct an assessment of Proteolix's internal control over financial reporting prior to the management report for Section 404 compliance, we are permitted and have elected to exclude the Onyx Therapeutics, Inc. (formerly Proteolix, Inc.) operations from the Section 404 compliance requirements for the year ended December 31, 2009.

There were no other changes in the Company's internal control over financial reporting during the quarter ended December 31, 2009 that have materially affected, or are reasonably likely to materially affect the Company's internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls: Internal control over financial reporting may not prevent or detect all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Also, projections of any evaluation of effectiveness of internal control 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. Accordingly, our disclosure controls and procedures are designed to provide reasonable, not absolute, assurance that the objectives of our disclosure control system are met and, as set forth above, our principal executive officer and principal financial officer have concluded, based on their evaluation as of the end of the period covered by this report, that our disclosure controls and procedures were sufficiently effective to provide reasonable assurance that the objectives of our disclosure control system were met.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of Onyx Pharmaceuticals, Inc.

We have audited Onyx Pharmaceuticals, Inc.'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 (the COSO criteria). Onyx Pharmaceuticals, Inc.'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 Management's Report on Internal Control over Financial Reporting. 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, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and 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.

As indicated in the accompanying Management's Report on Internal Control over Financial Reporting, management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of Onyx Therapeutics, Inc. (formerly Proteolix, Inc.) which is included in the 2009 consolidated financial statements of Onyx Pharmaceuticals, Inc. and constituted 49% and 36% of total and net assets, respectively, as of December 31, 2009 and no net revenues, 4% of operating expenses and a net loss of Onyx Therapeutics, Inc. (formerly Proteolix, Inc.) which reduced consolidated net income by 53%, for the year then ended. Our audit of internal control over financial reporting of Onyx Pharmaceuticals, Inc. also did not include an evaluation of the internal control over financial reporting of Onyx Therapeutics, Inc. (formerly Proteolix, Inc.).

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

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Onyx Pharmaceuticals, Inc. 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 of Onyx Pharmaceuticals, Inc. and our report dated February 23, 2010 expressed an unqualified opinion thereon.

/s/ ERNST & YOUNG LLP

Palo Alto, California February 23, 2010

Item 9B. Other information

Not applicable.

PART III.

Certain information required by Part III is omitted from this Annual Report on Form 10-K because the registrant will file with the U.S. Securities and Exchange Commission a definitive proxy statement pursuant to Regulation 14A in connection with the solicitation of proxies for the Company's Annual Meeting of Stockholders to be held on May 26, 2010, or the 2010 Definitive Proxy Statement, not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K, and certain information included therein is incorporated herein by reference.

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this Item 10 is incorporated by reference from our 2010 Definitive Proxy Statement.

Item 11. Executive Compensation

The information required under this Item 11 is incorporated by reference from our 2010 Definitive Proxy Statement.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required under this Item 12 with respect to security ownership of certain beneficial owners and management is incorporated by reference from our 2010 Definitive Proxy Statement.

Securities Authorized for Issuance Under Equity Compensation Plans as of December 31, 2009

| | Number of securities to be issued upon exercise of outstanding options and rights | Weighted-average exercise price of outstanding options and rights | Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column a) |
|--|--|--|---|
| Plan Category(1) | Column a | Column b | Column c |
| Equity compensation plans approved by security holders | 5,068,110 | \$ 29.48 | 5,370,717(2) |

⁽¹⁾ We have no equity compensation plans not approved by security holders.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required under this Item 13 is incorporated by reference from our 2010 Definitive Proxy Statement.

Item 14. Principal Accounting Fees and Services

The information required under this Item 14 is incorporated by reference from our 2010 Definitive Proxy Statement.

Consistent with Section 10A (i)(2) of the Securities Exchange Act of 1934, as amended, as added by Section 202 of the Sarbanes-Oxley Act of 2002, we are responsible for listing the non-audit services approved by our Audit Committee to be performed by Ernst & Young LLP, our independent registered public accounting firm. Non-audit services are defined as services other than those provided in connection with an audit or a review of our consolidated financial statements. Ernst & Young LLP did not provide any non-audit services related to the year ended December 31, 2009.

⁽²⁾ This amount includes 434,327 shares that remain available for purchase under our Employee Stock Purchase Plan. Under the 2005 Equity Incentive Plan, as amended, shares available for issuance should be reduced by one and six tenths (1.6) shares for each share of common stock available for issuance pursuant to a stock purchase award, stock bonus award, stock unit award or other stock award granted. With this adjustment, the total amount available for future issuance would be reduced to 3,519,571 shares.

PART IV.

Item 15. Exhibits, Consolidated Financial Statement Schedules

(a) Documents filed as part of this report.

(1) Index to Consolidated Financial Statements

The Consolidated Financial Statements required by this item are submitted in a separate section beginning on page 67 of this Report.

Report of Independent Registered Public Accounting Firm

Consolidated Balance Sheets

Consolidated Statements of Operations

Consolidated Statement of Stockholders' Equity

Consolidated Statements of Cash Flows

Notes to Consolidated Financial Statements

(2) Consolidated Financial Statement Schedules

Consolidated Financial statement schedules have been omitted because the information required to be set forth therein is not applicable.

Exhibits

| Exhibit Number | Description of Document |
|-------------------|--|
| 2.1(1)* | Agreement and Plan of Merger dated as of October 10, 2009 among Onyx Pharmaceuticals, Inc., Proteolix, Inc., Profiterole Acquisition Corp., and Shareholder Representative Services LLC. |
| 3.1(2) | Restated Certificate of Incorporation of the Company. |
| 3.2(3) | Amended and Restated Bylaws of the Company. |
| 3.3(4) | Certificate of Amendment to Amended and Restated Certificate of Incorporation. |
| 3.4(5) | Certificate of Amendment to Amended and Restated Certificate of Incorporation. |
| 4.1 | Reference is made to Exhibits 3.1, 3.2, 3.3 and 3.4. |
| 4.2(2) | Specimen Stock Certificate. |
| 4.3(6) | Indenture dated as of August 12, 2009 between Onyx Pharmaceuticals, Inc. and Wells |
| | Fargo Bank, National Association. |
| 4.4(6) | First Supplemental Indenture dated as of August 12, 2009 between Onyx |
| | Pharmaceuticals, Inc. and Wells Fargo Bank, National Association. |
| 4.5(6) | Form of 4.00% Convertible Senior Note due 2016. |
| 10.1(i)(7)* | Collaboration Agreement between Bayer Corporation (formerly Miles, Inc.) and the Company dated April 22, 1994. |
| 10.1(ii)(7)* | Amendment to Collaboration Agreement between Bayer Corporation and the Company dated April 24, 1996. |
| 10.1(iii)(7)* | Amendment to Collaboration Agreement between Bayer Corporation and the Company dated February 1, 1999. |
| 10.2(i)(7)* | Amended and Restated Research, Development and Marketing Collaboration Agreement dated May 2, 1995 between the Company and Warner-Lambert Company. |
| 10.2(ii)(8)* | Research, Development and Marketing Collaboration Agreement dated July 31, 1997 between the Company and Warner-Lambert Company. |

| Exhibit Number | Description of Document |
|-------------------|---|
| 10.2(iii)(8)* | Amendment to the Amended and Restated Research, Development and Marketing Collaboration Agreement, dated December 15, 1997, between the Company and Warner-Lambert Company. |
| 10.2(iv)(8)* | Second Amendment to the Amended and Restated Research, Development and Marketing Agreement between Warner-Lambert and the Company dated May 2, 1995. |
| 10.2(v)(8)* | Second Amendment to Research, Development and Marketing Collaboration Agreement between Warner-Lambert and the Company dated July 31, 1997. |
| 10.2(vi)(9)* | Amendment #3 to the Research, Development and Marketing Collaboration Agreement between the Company and Warner-Lambert dated August 6, 2001. |
| 10.2(vii)(10)* | Amendment #3 to the Amended and Restated Research, Development and Marketing Collaboration Agreement between the Company and Warner-Lambert dated August 6, 2001. |
| 10.3(11)* | Technology Transfer Agreement dated April 24, 1992 between Chiron Corporation and the Company, as amended in the Chiron Onyx HPV Addendum dated December 2, 1992, in the Amendment dated February 1, 1994, in the Letter Agreement dated May 20, 1994 and in the Letter Agreement dated March 29, 1996. |
| 10.4(2)+ | Letter Agreement between Dr. Gregory Giotta and the Company dated May 26, 1995. |
| 10.5(2)+ | 1996 Equity Incentive Plan. |
| 10.6(2)+ | 1996 Non-Employee Directors' Stock Option Plan. |
| 10.7(12)+ | 1996 Employee Stock Purchase Plan. |
| 10.8(2)+ | Form of Indemnity Agreement to be signed by executive officers and directors of the Company. |
| 10.9(13)+ | Form of Executive Change in Control Severance Benefits Agreement. |
| 10.10(i)(14)* | Collaboration Agreement between the Company and Warner-Lambert Company dated October 13, 1999. |
| 10.10(ii)(9)* | Amendment #1 to the Collaboration Agreement between the Company and Warner-Lambert dated August 6, 2001. |
| 10.10(ii)(15)* | Second Amendment to the Collaboration Agreement between the Company and Warner-Lambert Company dated September 16, 2002. |
| 10.11(16) | Stock and Warrant Purchase Agreement between the Company and the investors dated May 6, 2002. |
| 10.12(i)(17) | Sublease between the Company and Siebel Systems dated August 5, 2004. |
| 10.12(ii)(18) | First Amendment to Sublease between the Company and Oracle USA Inc., dated November 3, 2006. |
| 10.13(i)(19)+ | 2005 Equity Incentive Plan. |
| 10.13(ii)(18)+ | Form of Stock Option Agreement pursuant to the 2005 Equity Incentive Plan. |
| 10.13(iii)(18)+ | Form of Stock Option Agreement pursuant to the 2005 Equity Incentive Plan and the Non-Discretionary Grant Program for Directors. |
| 10.13(iv)(20)+ | Form of Stock Bonus Award Grant Notice and Agreement between the Company and certain award recipients. |
| 10.14(7)* | United States Co-Promotion Agreement by and between the Company and Bayer Pharmaceuticals Corporation, dated March 6, 2006. |
| 10.15(21)+ | Letter Agreement between Laura A. Brege and the Company, dated May 19, 2006. |
| 10.16(20)+ | Letter Agreement between Gregory W. Schafer and the Company, dated July 7, 2006. |
| 10.17(22) | Common Stock Purchase Agreement between the Company and Azimuth Opportunity Ltd., dated September 29, 2006. |
| 10.18+ | Letter Agreement between Michael Kauffman, M.D., and the Company, dated October 10, 2009. |
| 10.19(23)+ | Bonuses for Fiscal Year 2008 and Base Salaries for Fiscal Year 2009 for Executive Officers. |
| 10.20(i)(24)+ | Employment Agreement between the Company and N. Anthony Coles, M.D., dated as of February 22, 2008. |

| Exhibit Number | Description of Document |
|-------------------|--|
| 10.20(ii)(23) | Amendment to Executive Employment Agreement between the Company and N. Anthony Coles, M.D., effective as of March 12, 2009. |
| 10.21(24)+ | Executive Change in Control Severance Benefits Agreement between the Company and N. Anthony Coles, M.D., dated as of February 22, 2008. |
| 10.22** | License and Supply Agreement, dated October 12, 2005, by and between CyDex, Inc. and Proteolix, Inc., as amended. |
| 10.23 | Reserved. |
| 10.24(i)(25)+ | Separation and Consulting Agreement between the Company and Gregory W. Schafer, dated June 23, 2008. |
| 10.24(ii)(3)+ | Amendment to Separation and Consulting Agreement between the Company and Gregory W. Schafer, dated December 5, 2008. |
| 10.25(3)+ | Onyx Pharmaceuticals, Inc. Executive Severance Benefit Plan. |
| 10.26(26)+ | Letter Agreement between the Company and Matthew K. Fust, dated December 12, 2008. |
| 10.27(27)* | Development and License Agreement between the Company and BTG International Limited, dated as of November 6, 2008. |
| 10.28(i)(23)+ | Letter Agreement between the Company and Juergen Lasowksi, Ph.D., dated April 28, 2008. |
| 10.28(ii)(23)+ | Amendment to Letter Agreement between the Company and Juergen Lasowski, Ph.D., effective as of March 12, 2009. |
| 10.29(28)+ | Executive Employment Agreement between the Company and Suzanne M. Shema, effective as of August 31, 2009. |
| 21.1 | Subsidiaries of the Registrant. |
| 23.1 | Consent of Independent Registered Public Accounting Firm. |
| 24.1 | Power of Attorney. Reference is made to the signature page. |
| 31.1 | Certification of Principal Executive Officer required by Rule 13a-14(a) or Rule 15d-14(a). |
| 31.2 | Certification of Principal Financial Officer required by Rule 13a-14(a) or Rule 15d-14(a). |
| 32.1 | Certifications required by Rule 13a-14(b) or Rule 15d-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. 1350). |

^{*} Confidential treatment has been received for portions of this document.

- (1) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on October 13, 2009.
- (2) Filed as an exhibit to Onyx's Registration Statement on Form SB-2 (No. 333-3176-LA).
- (3) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on December 5, 2008.
- (4) Filed as an exhibit to Onyx's Quarterly Report on Form 10-Q for the quarter ended June 30, 2000.
- (5) Filed as an exhibit to Onyx's Registration Statement on Form S-3 (No. 333-134565) filed on May 30, 2006.
- (6) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on August 12, 2009.
- (7) Filed as an exhibit to Onyx's Quarterly Report on Form 10-Q for the quarter ended March 31, 2006. The redactions to this agreement have been amended since its original filing in accordance with a request for extension of confidential treatment filed separately by the Company with the Securities and Exchange Commission.
- (8) Filed as an exhibit to Onyx's Annual Report on Form 10-K for the year ended December 31, 2002. The redactions to this agreement have been amended since its original filing in accordance with a request for extension of confidential treatment filed separately by the Company with the Securities and Exchange Commission.
- (9) Filed as an exhibit to Onyx's Quarterly Report on Form 10-Q for the quarter ended September 30, 2001.

^{**} Confidential treatment has been sought for portions of this document.

⁺ Indicates management contract or compensatory plan or arrangement.

- (10) Filed as an exhibit to Onyx's Quarterly Report on Form 10-Q for the quarter ended September 30, 2006. The redactions to this agreement have been amended since its original filing in accordance with a request for extension of confidential treatment filed separately by the Company with the Securities and Exchange Commission.
- (11) Filed as an exhibit to Onyx's Annual Report on Form 10-K for the year ended December 31, 2001. The redactions to this agreement have been amended since its original filing in accordance with a request for extension of confidential treatment filed separately by the Company with the Securities and Exchange Commission.
- (12) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on May 25, 2007.
- (13) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on June 10, 2008.
- (14) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on March 1, 2000.
- (15) Filed as an exhibit to Onyx's Quarterly Report on Form 10-Q for the quarter ended September 30, 2002.
- (16) Filed as an exhibit to Onyx's Registration Statement on Form S-3 filed on June 5, 2002 (No. 333-89850).
- (17) Filed as an exhibit to Onyx's Quarterly Report on Form 10-Q for the quarter ended September 30, 2004.
- (18) Filed as an exhibit to Onyx's Annual Report on Form 10-K for the year ended December 31, 2006.
- (19) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on May 27, 2009
- (20) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on July 12, 2006.
- (21) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on June 12, 2006.
- (22) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on September 29, 2006.
- (23) Filed as an exhibit to Onyx's Quarterly Report on Form 10-Q for the quarter ended March 31, 2009.
- (24) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on February 26, 2008.
- (25) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on June 23, 2008.
- (26) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on December 23, 2008.
- (27) Filed as an exhibit to Onyx's Annual Report on Form 10-K for the year ended December 31, 2008.
- (28) Filed as an exhibit to Onyx's Quarterly Report on Form 10-Q for the quarter ended September 30, 2009.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Emeryville, County of Alameda, State of California, on the 23rd day of February, 2010.

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|---|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|--|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| By: | /s/ N. ANTHONY COLES |
|-----|---------------------------------------|
| | N. Anthony Coles |
| | President and Chief Executive Officer |

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints N. Anthony Coles and Matthew K. Fust or either of them, his or her attorney-in-fact, each with the power of substitution, for him or her in any and all capacities, to sign any amendments to this Annual Report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact, or his or her substitute or substitutes, may do or cause to be done by virtue hereof.

In accordance with the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant in the capacities and on the dates stated.

| Signature | Title | Date | | | |
|----------------------------|--|----------------------|--|--|--|
| /s/ N. ANTHONY COLES | President and Chief Executive Officer (Principal Executive Officer) | February 23, | | | |
| N. Anthony Coles | Officer (Fillerpar Executive Officer) | 2010 | | | |
| /s/ MATTHEW K. FUST | Executive Vice President and Chief Financial Officer (Principal | February 23, 2010 | | | |
| Matthew K. Fust | Financial and Accounting Officer) | | | | |
| /s/ PAUL GODDARD | Director | February 23, 2010 | | | |
| Paul Goddard, Ph.D. | | | | | |
| /s/ ANTONIO GRILLO-LOPEZ | Director | February 23, 2010 | | | |
| Antonio Grillo-Lopez, M.D. | | | | | |
| /s/ MAGNUS LUNDBERG | Director | February 23, 2010 | | | |
| Magnus Lundberg | | | | | |
| /s/ CORINNE H. NEVINNY | Director | February 23, 2010 | | | |
| Corinne H. Nevinny | | | | | |
| /s/ WENDELL WIERENGA | Director | February 23, 2010 | | | |
| Wendell Wierenga, Ph.D. | | | | | |
| /s/ THOMAS G. WIGGANS | Director | February 23, 2010 | | | |

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of Onyx Pharmaceuticals, Inc.

We have audited the accompanying consolidated balance sheets of Onyx Pharmaceuticals, Inc. 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. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements 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 includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes 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 financial statements referred to above present fairly, in all material respects, the consolidated financial position of Onyx Pharmaceuticals, Inc. at December 31, 2009 and 2008, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2009, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Onyx Pharmaceuticals, Inc.'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 and our report dated February 23, 2010 expressed an unqualified opinion thereon.

/s/ ERNST & YOUNG LLP

Palo Alto, California February 23, 2010

ONYX PHARMACEUTICALS, INC. CONSOLIDATED BALANCE SHEETS

| | | December 31, | | | | |
|--|-----|----------------------------|----|----------|--|--|
| | _ | 2009 | _ | 2008 | | |
| | (In | thousands, exc share ar | | | | |
| ASSETS | | | | | | |
| Current assets: | | | | | | |
| Cash and cash equivalents | \$ | 107,668 | \$ | 235,152 | | |
| Marketable securities, current | | 442,440 | | 183,272 | | |
| Restricted cash | | 27,600 | | - | | |
| Receivable from collaboration partner | | 51,418 | | 35,836 | | |
| Prepaid expenses and other current assets | | 9,597 | | 7,799 | | |
| Total current assets | | 638,723 | | 462,059 | | |
| Marketable securities, non-current | | 37,174 | | 39,622 | | |
| Property and equipment, net | | 7,473 | | 3,363 | | |
| Intangible assets — in-process research and development | | 438,800 | | | | |
| Goodwill | | 193,675 | | | | |
| Other assets | | 8,835 | | 4,723 | | |
| Total assets | \$ | 1,324,680 | \$ | 509,767 | | |
| Total assets | Ψ | 1,324,000 | Ψ | 307,707 | | |
| LIABILITIES AND STOCKHOLDERS' EQUITY | | | | | | |
| Current liabilities: | | | | | | |
| Accounts payable | \$ | 1,363 | \$ | 93 | | |
| Advance from collaboration partner | | - | • | 16,633 | | |
| Accrued liabilities | | 11,852 | | 4,523 | | |
| Accrued clinical trials and related expenses | | 13,815 | | 6,041 | | |
| Accrued compensation | | 13,148 | | 6,014 | | |
| Liability for contingent consideration, current | | 40,000 | | | | |
| Escrow account liability | | 27,600 | | | | |
| Total current liabilities | | 107,778 | | 33,304 | | |
| Deferred rent and lease incentives | | 5,059 | | 1,263 | | |
| Convertible senior notes due 2016 | | 143,669 | | 1,200 | | |
| Liability for contingent consideration, non-current | | 160,528 | | | | |
| Deferred tax liability | | 157,090 | | | | |
| Commitments and contingencies (Notes 4, 11 and 18) | | . , , | | | | |
| Stockholders' equity: | | | | | | |
| Preferred stock, \$0.001 par value; 5,000,000 shares authorized; none issued and | | | | | | |
| outstanding | | - | | | | |
| Common stock, \$0.001 par value; 100,000,000 shares authorized; 62,260,183 and | | | | | | |
| 56,560,244 shares issued and outstanding as of December 31, 2009 and 2008, | | | | | | |
| respectively | | 62 | | 57 | | |
| Additional paid-in capital | | 1,207,010 | | 950,628 | | |
| Receivable from stock option exercises | | (5) | | (455 | | |
| Accumulated other comprehensive gain (loss) | | (1,962) | | (4,320 | | |
| Accumulated deficit | _ | (454,549) | _ | (470,710 | | |
| Total stockholders' equity | | 750,556 | | 475,200 | | |
| | | | | 509,767 | | |

See accompanying notes.

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CONSOLIDATED STATEMENTS OF OPERATIONS

| | Year Ended December 31, | | | | | |
|--|-------------------------|------------|--------|---------------|-----------|----------|
| | 2 | 2009 | | 2008 | | 2007 |
| | (| In thousan | ds, ex | cept per shar | e amo | ounts) |
| Revenue: | | | | | | |
| Revenue from collaboration agreement | \$ 2 | 50,390 | \$ | 194,343 | \$ | 90,429 |
| Contract revenue from collaborations | | 1,000 | | | | |
| Total revenue | 2 | 51,390 | _ | 194,343 | | 90,429 |
| Operating expenses: | | | | | | |
| Research and development | 1 | 28,506 | | 123,749 | | 83,306 |
| Selling, general and administrative | 1 | 01,132 | | 80,994 | | 60,546 |
| Contingent consideration | | 1,528 | | | | |
| Total operating expenses | 2 | 31,166 | | 204,743 | | 143,852 |
| Income (loss) from operations | | 20,224 | | (10,400) | | (53,423) |
| Investment income, net | | 4,028 | | 12,695 | | 19,256 |
| Interest expense | | (6,858) | | | | |
| Income (loss) before provision for income taxes | | 17,394 | | 2,295 | | (34,167) |
| Provision for income taxes | | 1,233 | | 347 | | _ |
| Net income (loss) | \$ | 16,161 | \$ | 1,948 | \$ | (34,167) |
| Basic net income (loss) per share | \$ | 0.27 | \$ | 0.03 | <u>\$</u> | (0.67) |
| Diluted net income (loss) per share | \$ | 0.27 | \$ | 0.03 | \$ | (0.67) |
| Shares used in computing basic net income (loss) per share | | 59,215 | | 55,915 | _ | 51,177 |
| Shares used in computing diluted net income (loss) per share | | 59,507 | | 56,765 | | 51,177 |

See accompanying notes.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

| | Common Sto | Amount | Additional Paid-In Capital | Receivable From Stock Option Exercises | Accumulated Other Comprehensive Income (Loss) d per share amounts) | Accumulated Deficit | Total Stockholders' Equity |
|--|-----------------------|--------|----------------------------|--|--|------------------------|----------------------------------|
| Balances at December 31, | | | ` | • | - F | | |
| 2006 | 45,913,370 | \$ 46 | \$ 661,402 | | \$ (177) | \$ (438,491) | \$ 222,780 |
| Exercise of stock options Issuance of common stock in connection with Azimuth common stock | 1,477,661 | 1 | 21,909 | , , | - | - | 21,887 |
| purchase agreement Issuance of common stock | 1,246,912 | 2 | 30,754 | - | - | - | 30,756 |
| in connection with follow-on public offering | 6,600,000 | 7 | 174,149 | - | - | - | 174,156 |
| Stock-based compensation, related to stock option grants | - | - | 14,073 | - | - | - | 14,073 |
| Issuance of common stock | | | | | | | |
| pursuant to employee stock purchase plan Vesting of restricted stock | 73,611 | - | 954 | | - | - | 954 |
| awards Comprehensive loss: | 13,333 | - | 1,265 | - | - | - | 1,265 |
| Change in unrealized gain (loss) on investments | - | - | - | - | 533 | - | 533 |
| Net loss | - | - | - | - | - | (34,167) | (34,167) |
| Comprehensive loss | | | | | | | (33,634) |
| Balances at December 31, 2007 | 55,324,887 | 56 | 904,506 | | 356 | (472,658) | 432,237 |
| Exercise of stock options Stock-based compensation, related to stock option | 1,145,281 | 1 | 25,060 | (432) | - | - | 24,629 |
| grants | - | - | 16,779 | - | - | - | 16,779 |
| Tax benefit associated with stock options | - | - | 112 | - | - | - | 112 |
| Issuance of common stock pursuant to employee | | | | | | | |
| stock purchase plan | 37,631 | - | 1,386 | - | - | - | 1,386 |
| Vesting of restricted stock awards | 72,551 | - | 3,362 | - | - | - | 3,362 |
| Repurchase of restricted stock awards | (20,106) | - | (577 |) - | - | - | (577) |
| Comprehensive loss: Change in unrealized gain | | | | | | | |
| (loss) on investments Net income | - | - | - | - | (4,676) | 1,948 | (4,676) 1,948 |
| Comprehensive loss | | | | | | | (2,728) |
| Balances at December 31, | 56.560.244 | | 050.620 | (455) | (4.220) | (470.710) | 475 200 |
| 2008 Exercise of stock options | 56,560,244 552,607 | 57 | 950,628 12,167 | (455) 450 | (4,320) | (470,710) | 475,200 12,617 |
| Issuance of common stock in connection with | | _ | | | | | |
| follow-on public offering Warrant exercise | 4,600,000 5,852 | 5 | 133,914 | - | - | - | 133,919 |
| Stock-based compensation, related to stock option grants | | | 16,669 | | | | 16,669 |
| Tax benefit associated with | - | - | ĺ | | - | - | , |
| stock options Issuance of common stock | - | _ | 35 | - | - | - | 35 |
| pursuant to employee stock purchase plan | 45,435 | - | 1,647 | - | - | - | 1,647 |
| Restricted stock awards issued | 368,641 | _ | - | - | _ | - | - |
| Vesting of restricted stock awards | 128,014 | - | 5,408 | - | - | - | 5,408 |
| Repurchase of restricted stock awards | (610) | _ | (18 |) - | - | - | (18) |
| Equity component of convertible senior notes due 2016 | · , | _ | 86,560 | | - | _ | 86,560 |
| Comprehensive loss: | | | 00,500 | | | | 00,000 |
| Change in unrealized gain (loss) on investments Net income | - | - | - | _ | 2,358 | - 16,161 | 2,358 16,161 |
| Comprehensive income | - | _ | _ | - | - | 10,101 | 18,519 |
| Balances at December 31, 2009 | 62,260,183 | \$ 62 | \$ 1,207,010 | \$ (5) | \$ (1,962) | \$ (454,549) | \$ 750,556 |
| | ,00,100 | - 02 | . 1,207,010 | + (3) | . (1,732) | . (.5.,517) | . ,,,,,,,,, |

See accompanying notes.



CONSOLIDATED STATEMENTS OF CASH FLOWS

| | Year Ended December 31, | | | | | |
|--|-------------------------|-----------|-----|------------|----|-----------|
| | | 2009 | | 2008 | | 2007 |
| | | | (In | thousands) | | |
| Cash flows from operating activities: | | | | | | |
| Net income (loss) | \$ | 16,161 | \$ | 1,948 | \$ | (34,167) |
| Adjustments to reconcile net income (loss) to net cash provided by | | , | | | | , , , |
| operating activities: | | | | | | |
| Realized losses (gains) on sales of short-term marketable securities | | 32 | | (483) | | - |
| Depreciation and amortization | | 1,625 | | 1,333 | | 1,030 |
| Forgiveness of note receivable | | - | | - | | (87) |
| Stock-based compensation | | 22,561 | | 20,506 | | 15,624 |
| Excess tax benefit from stock-based awards | | (35) | | (112) | | - |
| Amortization of convertible senior notes discount and debt issuance | | | | | | |
| costs | | 3,371 | | - | | - |
| Changes in fair value of liability for contingent consideration | | 1,528 | | - | | - |
| Changes in operating assets and liabilities: | | | | | | |
| Receivable from collaboration partner | | (15,582) | | (31,134) | | 4,579 |
| Prepaid expenses and other current assets | | (1,582) | | (1,383) | | (2,710) |
| Other assets | | 17 | | (4,442) | | 144 |
| Accounts payable | | 843 | | (178) | | (26) |
| Payable to collaboration partner | | - | | - | | (8,391) |
| Accrued liabilities | | 4,579 | | 2,458 | | (862) |
| Accrued clinical trials and related expenses | | (988) | | 2,718 | | (4,940) |
| Accrued compensation | | 2,925 | | 232 | | 2,461 |
| Deferred rent and lease incentives | _ | (383) | | 92 | | 904 |
| Net cash provided by (used in) operating activities | | 35,072 | | (8,445) | | (26,441) |
| Cash flows from investing activities: | | | | | | |
| Acquisition of Proteolix, Inc., net of cash acquired | | (252,514) | | - | | - |
| Purchases of marketable securities | | (742,290) | | (420,344) | | (499,470) |
| Sales of marketable securities | | 106,846 | | 96,839 | | - |
| Maturities of marketable securities | | 381,050 | | 404,415 | | 368,996 |
| Capital expenditures | | (1,300) | | (1,550) | | (2,698) |
| Note receivable from related party | _ | <u>-</u> | | | | 152 |
| Net cash provided by (used in) investing activities | | (508,208) | | 79,360 | | (133,020) |
| Cash flows from financing activities: | | | | | | / |
| Repayment of notes payable | | (8,160) | | - | | - |
| Purchases of treasury stock | | (18) | | (577) | | - |
| Payments to collaboration partner | | (16,633) | | (22,601) | | (766) |
| Net proceeds from issuances of common stock | | 147,699 | | 25,650 | | 227,467 |
| Proceeds from issuance of convertible senior notes | | 230,000 | | - | | - |
| Convertible senior notes debt issuance costs | | (7,271) | | - | | - |
| Excess tax benefit from stock-based awards | | 35 | | 112 | | - |
| Net cash provided by financing activities | | 345,652 | | 2,584 | | 226,701 |
| Net increase (decrease) in cash and cash equivalents | | (127,484) | | 73,499 | | 67,240 |
| Cash and cash equivalents at beginning of period | | 235,152 | | 161,653 | | 94,413 |
| Cash and cash equivalents at end of period | \$ | 107,668 | \$ | 235,152 | \$ | 161,653 |
| Supplemental cash flow data | | | | | | |
| Cash paid during the period for income taxes | \$ | 506 | \$ | 641 | \$ | - |
| 1 0 - 1 - 1 - 1 - 1 | - | | | - | | |

See accompanying notes.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS December 31, 2009

Note 1. Overview and Summary of Significant Accounting Policies

Overview

Onyx Pharmaceuticals, Inc. ("Onyx" or "the Company") was incorporated in California in February 1992 and reincorporated in Delaware in May 1996. Onyx is a biopharmaceutical company dedicated to developing innovative therapies that target the molecular mechanisms that cause cancer. Through the Company's internal research programs and in conjunction with its collaborators, the Company is applying its expertise to develop and commercialize therapies designed to exploit the genetic and molecular differences between cancer cells and normal cells with the goal of *Changing the Way Cancer is Treated* TM.

The Company's first commercially available product, Nexavar® (sorafenib) tablets, being developed with the Company's collaborator Bayer HealthCare Pharmaceuticals, Inc., or Bayer, is approved by the United States Food and Drug Administration, or FDA, for the treatment of patients with unresectable liver cancer and advanced kidney cancer.

The Company has broadened its pipeline of anticancer compounds through its recent acquisition of Proteolix, Inc., or Proteolix, and through the acquisition of rights to development-stage and novel anticancer agents. Through the acquisition of Proteolix, the Company acquired the rights to carfilzomib (a next-generation proteasome inhibitor) PR 957 (designated by the Company as ONX 0914) and PR 047 (designated by the Company as ONX 0912). In November 2008, the Company entered into an agreement to license worldwide development and commercialization rights to ONX 0801, previously known as BGC 945, from BTG International Limited, or BTG, a London-based specialty pharmaceuticals company. In December 2008, the Company acquired options to license SB1518 (designated by the Company as ONX 0803) and SB1578 (designated by the Company as ONX 0805), which are both Janus Kinase 2, or JAK2, inhibitors, from S*BIO Pte Ltd, or S*BIO, a Singapore-based company.

FASB Accounting Standards Codification

In June 2009, the Financial Accounting Standards Board, or FASB, issued Statement of Financial Accounting Standards, ("SFAS") No. 168, *The FASB Accounting Standards Codification and the Hierarchy of Generally Accepted Accounting Principles (GAAP)*— a replacement of SFAS No. 162, which establishes the FASB Accounting Standards Codification, or ASC, as the source of authoritative U.S. GAAP recognized by the FASB to be applied by non-governmental entities. This guidance is effective for interim periods and fiscal years ending after September 15, 2009. The Company adopted the provisions of this guidance and, as a result, the majority of references to historically issued accounting pronouncements are now superseded by references to the FASB ASC. Certain accounting pronouncements, such as SFAS 168, will remain authoritative until they are integrated into the FASB ASC.

Basis of Presentation

The consolidated financial statements include the accounts of Onyx and its wholly owned subsidiary, Proteolix, from the date of acquisition. All intercompany balances and transactions have been eliminated in consolidation.

Business Combinations

The Company accounted for the acquisition of Proteolix in accordance with ASC Topic 805, formerly known as SFAS 141R, "Business Combinations." ASC Topic 805 establishes principles and requirements for recognizing and measuring the total consideration transferred to and the assets acquired, liabilities assumed and any non-controlling interests in the acquired target in a business combination. ASC Topic 805 also provides guidance for recognizing and measuring goodwill acquired in a business combination; requires purchased in-process research and development to be capitalized at fair value as intangible assets at the time of acquisition; requires acquisition-related expenses and restructuring costs to be recognized separately from the business combination; expands the definition

of what constitutes a business; and requires the acquirer to disclose information that users may need to evaluate and understand the financial effect of the business combination.

Significant Accounting Policies, Estimates and Judgments

The preparation of these consolidated financial statements in conformity with United States generally accepted accounting principles requires the Company to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosures. On an ongoing basis, management evaluates its estimates, including critical accounting policies or estimates related to revenue from collaboration agreement, the effect of business combinations, fair value measurements of tangible and intangible assets and liabilities, goodwill and other intangible assets, income taxes, stock-based compensation related to stock options granted, and research and development expenses. The Company bases its estimates on historical experience and on various other market specific and other relevant assumptions that management believes 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 significantly from these estimates.

Revenue Recognition

Revenue is recognized when the related costs are incurred and the four basic criteria of revenue recognition are met: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred or services rendered; (3) the fee is fixed or determinable; and (4) collectability is reasonably assured. Determination of criteria (3) and (4) are based on management's judgments regarding the nature of the fee charged for products or services delivered and the collectability of those fees.

Contract Revenue from Collaborations. Revenue from nonrefundable, up-front license or technology access payments under license and collaboration agreements that are not dependent on any future performance by the Company under the arrangements is recognized when such amounts are earned. If the Company has continuing obligations to perform, such fees are recognized over the period of continuing performance obligation.

Creditable milestone-based payments that the Company received from its collaboration with Bayer were not recorded as revenue. These amounts are interest-free and are repayable to Bayer from a portion of any of the Company's quarterly future profits and royalties after deducting certain contractually agreed upon expenditures and were recorded in the caption "Advance from collaboration partner" on the Company's accompanying consolidated balance sheets.

Revenue from Collaboration Agreement

In accordance with ASC Subtopic 808-10, formerly known as Emerging Issues Task Force 07-1, or EITF 07-1, "Accounting for Collaborative Arrangements," the Company records its share of the pre-tax commercial profit generated from the collaboration with Bayer, reimbursement of its shared marketing costs related to Nexavar and royalty revenue in one line item, "Revenue from collaboration agreement." The Company's portion of shared collaboration research and development expenses is not included in the line item "Revenue from collaboration agreement," but is reflected under operating expenses. According to the terms of the collaboration agreement, the companies share all research and development, marketing, and non-U.S. sales expenses. The Company and Bayer each bear their own U.S. sales force and medical science liaison expenses. These costs related to the Company's U.S. sales force and medical science liaisons are recorded in selling, general and administrative expenses. Bayer recognizes all revenue under the Nexavar collaboration and incurs the majority of expenses relating to the development and marketing of Nexavar. The Company is highly dependent on Bayer for timely and accurate information regarding any revenues realized from sales of Nexavar and the costs incurred in developing and selling it, in order to accurately report its results of operations. If the Company does not receive timely and accurate information or incorrectly estimate activity levels associated with the collaboration of Nexavar at a given point in time, it could be required to record adjustments in future periods and may be required to restate its results for prior periods.

Research and Development

Research and development costs are charged to expense when incurred. The major components of research and development costs include clinical manufacturing costs, clinical trial expenses, non-refundable upfront payments, consulting and other third-party costs, salaries and employee benefits, stock-based compensation expense, supplies and materials, and allocations of various overhead and occupancy costs. Clinical trial expenses include, but are not limited to, investigator fees, site costs, comparator drug costs, clinical research organization costs. In addition, the Company's cost accruals for clinical trials are based on estimates of the services received and efforts expended pursuant to contracts with numerous clinical trial sites, cooperative groups and clinical research organizations. In the normal course of business, the Company contracts with third parties to perform various clinical trial activities in the on-going development of potential products. The financial terms of these agreements are subject to negotiation and variation from contract to contract and may result in uneven payment flows. Payments under the contracts depend on factors such as the achievement of certain events, the successful enrollment of patients and the completion of portions of the clinical trial or similar conditions. The objective of the Company's accrual policy is to match the recording of expenses in its consolidated financial statements to the actual services received and efforts expended. As such, expense accruals related to clinical trials are recognized based on the Company's estimate of the degree of completion of the event or events specified in the specific clinical study or trial contract. The Company monitors service provider activities to the extent possible; however, if the Company underestimates activity levels associated with various studies at a given point in time, the Company could be required to record significant additional research and development expenses in future periods.

In instances where the Company enters into agreements with third parties for clinical trials and other consulting activities, up-front payment amounts are capitalized and expensed as services are performed or as the underlying goods are delivered. If the Company does not expect the services to be rendered or goods to be delivered, any remaining capitalized amounts for non-refundable up-front payments are charged to expense immediately. Amounts due under such arrangements may be either fixed fee or fee for service, and may include upfront payments, monthly payments and payments upon the completion of milestones or receipt of deliverables.

Non-refundable option payments, including those made under the Company's agreement with S*BIO, that do not have any future alternative use are recorded as research and development expense. Not all research and development costs are incurred by the Company. A significant portion of the Company's research and development expenses, approximately 67% in 2009, 55% in 2008 and 82% in 2007, relates to the Company's cost sharing arrangement with Bayer and represents the Company's share of the research and development costs incurred by Bayer. As a result of the cost sharing arrangement between the Company and Bayer, there was a net reimbursable amount of \$63.7 million, \$50.7 million and \$57.9 million to Bayer for the years ended December 31, 2009, 2008 and 2007, respectively. Such amounts were recorded based on invoices and estimates the Company receives from Bayer. When such invoices have not been received, the Company must estimate the amounts owed to Bayer based on discussions with Bayer. If the Company underestimates or overestimates the amounts owed to Bayer, the Company may need to adjust these amounts in a future period, which could have an effect on earnings in the period of adjustment.

Stock-Based Compensation

The Company accounts for stock-based compensation of stock options granted to employees and directors and of employee stock purchase plan shares by estimating the fair value of stock-based awards using the Black-Scholes option-pricing model and amortizing the fair value of the stock-based awards granted over the applicable vesting period. The Black-Scholes option pricing model includes assumptions regarding dividend yields, expected volatility, expected option term and risk-free interest rates. The Company estimates expected volatility based upon a combination of historical and implied stock prices. The risk-free interest rate is based on the U.S. treasury yield curve in effect at the time of grant. The expected option term calculation incorporates historical employee exercise behavior and post-vesting employee termination rates. The Company accounts for stock-based compensation of restricted stock award grants by amortizing the fair value of the restricted stock award grants, which is the grant date market price, over the applicable vesting period.

The net income for the years ended December 31, 2009 and 2008 includes employee stock-based compensation expense of \$21.1 million, or \$0.35 per diluted share, and \$18.8 million, or \$0.33 per diluted share. The net loss for the year ended December 31, 2007 includes employee stock-based compensation expense of \$14.1 million, or \$0.28 per diluted share. As of December 31, 2009, the total unrecorded stock-based compensation expense for unvested stock options, net of expected forfeitures, was \$38.4 million, which is expected to be amortized over a weighted-average period of 2.6 years.

All stock option awards to non-employees are accounted for at the fair value of the consideration received or the fair value of the equity instrument issued, as calculated using the Black-Scholes model. The option arrangements are subject to periodic remeasurement over their vesting terms. The Company recorded compensation expense related to option grants to non-employees of \$1.5 million, \$1.7 million and \$1.5 million for the years ended December 31, 2009, 2008 and 2007, respectively.

The assumptions used in computing the fair value of stock-based awards reflect the Company's best estimates, but involve uncertainties relating to market and other conditions, many of which are outside of the Company's control. In addition, the Company's estimate of future stock-based compensation expense will be affected by a number of items including the Company's stock price, the number of stock options the Company's board of directors may grant in future periods, as well as a number of complex and subjective valuation adjustments and the related tax effect. As a result, if other assumptions or estimates had been used, the stock-based compensation expense that was recorded for the years ended December 31, 2009, 2008 and 2007 could have been materially different. Furthermore, if different assumptions are used in future periods, stock-based compensation expense could be materially impacted in the future.

Net Income (Loss) Per Share

Basic net income (loss) per share amounts for each period presented were computed by dividing net income (loss) by the weighted-average number of shares of common stock outstanding. Diluted net income (loss) per share for each period presented was computed by dividing net income (loss) plus interest on dilutive convertible senior notes by the weighted-average number of shares of common stock outstanding during each period plus all additional common shares that would have been outstanding assuming dilutive potential common shares had been issued for dilutive convertible senior notes and other dilutive securities.

Dilutive potential common shares for dilutive convertible senior notes are calculated based on the "if-converted" method. Under the "if-converted" method, when computing the dilutive effect of convertible senior notes, the numerator is adjusted to add back the amount of interest and debt issuance costs recognized in the period and the denominator is adjusted to add back the amount of shares that would be issued if the entire obligation is settled in shares. As of December 31, 2009, the Company's outstanding indebtedness consisted of its 4.0% convertible senior notes due 2016, or the 2016 Notes.

Dilutive potential common shares also include the dilutive effect of the common stock underlying in-the-money stock options and are calculated based on the average share price for each period using the treasury stock method. Under the treasury stock method, the exercise price of an option, the average amount of compensation cost, if any, for future service that the Company has not yet recognized when the option is exercised, are assumed to be used to repurchase shares in the current period. Dilutive potential common shares also reflect the dilutive effect of unvested restricted stock units.

The computations for basic and diluted net income (loss) per share were as follows:

| | Year Ended December 31, | | | | |
|---|-------------------------|-------------------|--------------|--|--|
| | 2009 | 2008 | 2007 | | |
| | (In thousan | ds, except per sh | are amounts) | | |
| Numerator: | | | | | |
| Net income (loss) — basic | \$ 16,161 | \$ 1,948 | \$ (34,167) | | |
| Add: interest and issuance costs related to convertible senior notes | | <u>-</u> _ | | | |
| Net income (loss) — diluted | \$ 16,161 | \$ 1,948 | \$ (34,167) | | |
| Denominator: | | | | | |
| Weighted average common shares outstanding — basic | 59,215 | 55,915 | 51,177 | | |
| Dilutive effect of convertible senior notes | - | - | - | | |
| Dilutive effect of options | 292 | 850 | | | |
| Weighted average common shares outstanding and dilutive potential common shares — diluted | 59,507 | 56,765 | 51,177 | | |
| Net income (loss) per share: | | | | | |
| Basic | \$ 0.27 | \$ 0.03 | \$ (0.67) | | |
| Diluted | \$ 0.27 | \$ 0.03 | \$ (0.67) | | |

Under the "if-converted" method, 5.8 million potential common shares relating to the 2016 Notes were not included in diluted net income (loss) per share for the year ended December 31, 2009 because their effect would be anti-dilutive. Diluted net income (loss) per share does not include the effect of 4.0 million, 1.8 million and 4.6 million stock-based awards that were outstanding during the years ended December 31, 2009, 2008 and 2007. These stock-based awards were not included in the computation of diluted net income (loss) per share because the proceeds received, if any, from such stock-based awards combined with the average unamortized compensation costs were greater than the average market price of the Company's common stock, and, therefore, their effect would have been antidilutive.

The table below sets the potential common shares related to convertible notes and equity plans and the interest expense related to the convertible notes not included in dilutive shares because their effect would be anti-dilutive.

| | Year Ended | December 31, |
|---|------------|--------------|
| | 2009 | 2008 |
| | (In the | ousands) |
| Potential common shares — 2016 Notes | 5,801 | - |
| Potential common shares — equity plans | 3,959 | 1,812 |
| 2016 Notes interest and issuance expense not added back under the | | |
| "if-converted" method | \$ 6,820 | \$ - |

Income Taxes

The Company uses the asset and liability method to account for income taxes in accordance with ASC 740, Income Taxes, formerly known as *SFAS No. 109, Accounting For Income Taxes*. Under this method, deferred tax assets and liabilities are determined based on differences between the financial reporting and tax bases of assets and liabilities. At each balance sheet date, the Company evaluates the available evidence about future taxable income and other possible sources of realization of deferred tax assets, and records a valuation allowance that reduces the deferred tax assets to an amount that represents management's best estimate of the amount of such deferred tax assets that more likely than not will be realized. Deferred tax assets and liabilities are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

On January 1, 2007 the Company adopted authoritative guidance under ASC 740, formerly *FASB Interpretation No. 48 ("FIN 48")* which clarifies the accounting for uncertainty in tax positions recognized in the financial statements. The Company is in process of completing an analysis of its tax credit carryforwards. Any uncertain tax positions identified in the course of this analysis will not impact the Company's consolidated financial statements due to the full valuation allowance. The adoption of the guidance under ASC 740 had no impact on the Company's financial condition, results of operations, or cash flows for the year ended December 31, 2009, 2008 and 2007 as the Company had no unrecognized tax benefits.

The Company is subject to taxation in the U.S. and various state jurisdictions. The Company's calculation of its tax liabilities involves dealing with uncertainties in the application of complex tax laws and regulations in various taxing jurisdictions. If, based on new facts that arise within a period, management ultimately determines that the payment of these liabilities will be unnecessary, the liability will be reversed and the Company will recognize a tax benefit during the period in which it is determined the liability no longer applies. Conversely, the Company records additional tax charges in a period in which it is determined that a recorded tax liability is less than the ultimate assessment is expected to be.

The application of tax laws and regulations is subject to legal and factual interpretation, judgment and uncertainty. Tax laws and regulations themselves are subject to change as a result of changes in fiscal policy, changes in legislation, the evolution of regulations and court rulings. Therefore, the actual liability for U.S. taxes, or the various state jurisdictions, may be materially different from management's estimates, which could result in the need to record additional tax liabilities or potentially reverse previously recorded tax liabilities. Interest and penalties are included in tax expense.

Cash and Cash Equivalents

The Company considers all highly liquid investments with a maturity from the date of purchase of three months or less to be cash equivalents. Cash equivalents are carried at cost, which approximates fair value.

With the acquisition of Proteolix, the Company was required to set aside funds to be placed in an escrow account until December 31, 2010. As of December 31, 2009, \$27.6 million was recorded as restricted cash in accordance with the terms of the agreement and plan of merger dated October 12, 2009.

Marketable Securities

Marketable securities consist primarily of corporate debt securities, corporate commercial paper, debt securities of United States government agencies, auction rate notes and money market funds and are classified as available-for-sale securities. Concentration of risk is limited by diversifying investments among a variety of industries and issuers. Available-for-sale securities are carried at fair value based on quoted market prices, with any unrealized gains and losses reported in accumulated other comprehensive income (loss). Available-for-sale securities are carried at fair value based on quoted market prices, with any unrealized gains and losses reported in accumulated other comprehensive income (loss). For securities with unobservable quoted market prices, such as the AAA rated auction rate securities collateralized by student loans that are included in the Company's investment portfolio, the fair value is determined using a discounted cash flow analysis. The discounted cash flow model used to value these securities is based on a specific term and liquidity assumptions. Unrealized losses are charged against "investment income" when a decline in fair value is determined to be other-than-temporary. The Company reviews several factors to determine whether a loss is other-than-temporary. These factors include but are not limited to: (i) the extent to which the fair value is less than cost and the cause for the fair value decline, (ii) the financial condition and near-term prospects of the issuer, (iii) the length of time a security is in an unrealized loss position and (iv) the Company's ability to hold the security for a period of time sufficient to allow for any anticipated recovery in fair value. Available-for-sale securities with remaining maturities of greater than one year are classified as long-term. The amortized cost of securities in this category is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization is included in interest income. The cost of securities sold or the amount reclassified out of accumulated other comprehensive income into earnings is based on the specific identification method. Realized gains and losses and declines in value judged to be other than temporary are included in the statements of operations. Interest and dividends on securities classified as available-for-sale are included in investment income.

Fair Value Measurements

In accordance with ASC Subtopic 820-10, formerly known as Statement of Financial Accounting Standards No. 157 "Fair Value Measurements," the carrying amounts of certain financial instruments of the Company, including cash equivalents, marketable securities, liabilities for contingent consideration and 2016 notes, continue to be valued at fair value. ASC Subtopic 820-10 defines fair value and provides guidance for using fair value to measure assets and liabilities and is applicable whenever assets or liabilities are required or permitted to be measured at fair value,

The fair value estimates presented in this report reflect the information available to the Company as of December 31, 2009. See Note 5, "Fair Value Measurements."

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentration of credit risk consist principally of cash equivalents and marketable securities. The Company invests cash that is not required for immediate operating needs principally in money market funds and corporate securities.

The Company's investment portfolio includes \$39.3 million of AAA rated securities with an auction reset feature, or auction rate securities, that are collateralized by student loans. In January 2010, \$0.1 million in securities were redeemed at par and, accordingly, the Company classified them as current marketable securities in the accompanying Consolidated Balance Sheet at December 31, 2009. Therefore, a remaining balance of \$39.2 million of par value auction rate securities is currently outstanding in the Company's investment portfolio. Since February 2008, these types of securities have experienced failures in the auction process. However, a limited number of these securities have been redeemed at par by the issuing agencies. As a result of the auction failures, interest rates on these securities reset at penalty rates linked to LIBOR or Treasury bill rates. The penalty rates are generally higher than interest rates set at auction. Based on the overall failure rate of these auctions, the frequency of the failures, the underlying maturities of the securities, a portion of which are greater than 30 years, and the Company's belief that the market for these student loan collateralized instruments may take in excess of twelve months to fully recover, the Company has classified the auction rate securities with a par value of \$39.2 million as non-current marketable securities on the accompanying Consolidated Balance Sheet. The Company has determined the fair value to be \$37.2 million for these securities, based on a discounted cash flow model, and have reduced the carrying value of these marketable securities by \$2.0 million through accumulated other comprehensive income (loss) instead of earnings because the Company has deemed the impairment of these securities to be temporary. Further adverse developments in the credit market could result in an impairment charge through earnings in the future.

Property and Equipment

Property and equipment are stated on the basis of cost. Depreciation is calculated using the straight-line method over the estimated useful lives of the respective assets, generally two to five years. Leasehold improvements are amortized over the lesser of the lease term or the estimated useful lives of the related assets, generally five to seven years.

Deferred Rent and Lease Incentives

Deferred rent and lease incentives consists of the difference between cash payments and the recognition of rent expense on a straight-line basis for the buildings the Company occupies. The leases provide for fixed increases in minimum annual rental payments, as well as rent free periods. The total amount of rental payments due over the lease terms are being charged to rent expense ratably over the life of the leases.

Intangible Assets — In-process Research and Development

Intangible assets related to in-process research and development costs, or IPR&D, are considered to be indefinite-lived until the completion or abandonment of the associated research and development efforts. During the period the assets are considered indefinite-lived, they will not be amortized but will be tested for impairment on an annual basis and between annual tests if the Company becomes aware of any events occurring or changes in circumstances

that would indicate a reduction in the fair value of the IPR&D projects below their respective carrying amounts. If and when development is complete, which generally occurs if and when regulatory approval to market a product is obtained, the associated assets would be deemed finite-lived and would then be amortized based on their respective estimated useful lives at that point in time.

Liability for Contingent Consideration

In addition to the initial cash consideration paid to former Proteolix stockholders and the escrow account, the Company may be required to pay up to an additional \$575.0 million in earnout payments upon the receipt of certain regulatory approvals and the satisfaction of other milestones. The first earnout payment of \$40.0 million is expected to be paid in 2010, 180 days after completion of enrollment in an ongoing pivotal Phase 2b clinical study involving relapsed and refractory multiple myeloma patients The remaining \$535.0 million of earnout payments will become payable in up to four additional installments, upon the achievement of regulatory approvals in the U.S. and Europe within pre-specified timeframes for carfilzomib. In accordance with ASC Topic 805, formerly known as SFAS 141R, "Business Combinations," the Company determined the fair value of this liability for contingent consideration on the acquisition date using a probability weighted income approach. Future changes to the fair value of the contingent consideration will be determined each period and charged to expense in the "Contingent consideration" expense line item in the Consolidated Statements of Operations under operating expenses.

Convertible Senior Notes

In August 2009, the Company issued, through an underwritten public offering, \$230.0 million aggregate principal amount of 4.0% convertible senior notes due 2016. The 2016 Notes are accounted for in accordance with ASC Subtopic 470-20, formerly known as FASB Staff Position Accounting Principles Board 14-1. Under ASC Subtopic 470-20 issuers of certain convertible debt instruments that have a net settlement feature and may be settled in cash upon conversion, including partial cash settlement, are required to separately account for the liability (debt) and equity (conversion option) components of the instrument. The carrying amount of the liability component of the 2016 Notes, as of the issuance date, was computed by estimating the fair value of a similar liability issued at 12.5% effective interest rate, which was determined by considering the rate of return investors would require in the Company's capital structure as well as taking into consideration effective interest rates derived by comparable companies. The amount of the equity component was calculated by deducting the fair value of the liability component from the principal amount of the 2016 Notes and results in a corresponding increase to debt discount. Subsequently, the debt discount is amortized as interest expense through the maturity date of the 2016 Notes.

Segment Reporting

The Company operates in one segment—the discovery and development of novel cancer therapies.

Recent Accounting Pronouncements

In June 2009, the FASB issued SFAS No. 166, Accounting for Transfers of Financial Assets — an amendment of FASB Statement No. 140, or SFAS 166, which requires additional information regarding transfers of financial assets, including securitization transactions, and where companies have continuing exposure to the risks related to transferred financial assets. SFAS 166 eliminates the concept of a "qualifying special-purpose entity," changes the requirements for derecognizing financial assets, and requires additional disclosures. This statement is effective as of the beginning of the first fiscal year that begins after November 15, 2009 and has currently not been codified in the ASC. This statement will be effective for the Company in fiscal 2010, and the Company is still assessing the potential impact of adoption, if any.

In June 2009, the FASB issued SFAS 167, *Amendments to FASB Interpretation No. 46(R)*, which amends the consolidation guidance applicable to variable interest entities. The amendments will significantly affect the overall consolidation analysis under FASB Interpretation No. 46(R). This statement is effective as of the beginning of the first fiscal year that begins after November 15, 2009 and has currently not been codified in the ASC. This statement will be effective for the Company in fiscal year 2010, and the Company is still assessing the potential impact of adoption, if any.

On September 23, 2009, the FASB ratified ASC Subtopic 605-25, formerly known as Emerging Issues Task Force Issue, or EITF, No. 08-1, "Revenue Arrangements with Multiple Deliverables." ASC Subtopic 605-25 provides principles and application guidance on whether multiple deliverables exist, how the arrangement should be separated, and the consideration allocated. It also requires an entity to allocate revenue in an arrangement using estimated selling prices of deliverables if a vendor does not have vendor-specific objective evidence or third-party evidence of selling price. This statement is effective for fiscal years beginning on or after June 15, 2010 with earlier adoption permitted. The Company is still assessing the potential impact of adoption, if any.

Subsequent Events

The Company evaluated subsequent events from the date of the accompanying consolidated financial statements through February 23, 2010, the date the financial statements were issued.

Note 2. Agreements with Other Companies

Bayer Pharmaceuticals Corporation

Effective February 1994, the Company established a collaboration agreement with Bayer to discover, develop and market compounds that inhibit the function, or modulate the activity, of the RAS signaling pathway to treat cancer and other diseases. Together with Bayer, the Company concluded collaborative research under this agreement in 1999, and based on this research, a product development candidate, Nexavar, was identified. Bayer paid all the costs of research and preclinical development of Nexavar until the Investigational New Drug application, or IND, was filed in May 2000. Under the Company's collaboration agreement with Bayer, the Company is currently funding 50% of mutually agreed development costs worldwide, excluding Japan. Bayer is funding 100% of development costs in Japan and pays the Company a royalty on sales in Japan. At any time during product development, either company may terminate its participation in development costs, in which case the terminating party would retain rights to the product on a royalty-bearing basis. If the Company does not continue to bear 50% of product development costs, Bayer would retain exclusive, worldwide rights to this product candidate and would pay royalties to the Company based on net sales.

In March 2006, the Company and Bayer entered into a co-promotion agreement to co-promote Nexavar in the United States. This agreement amends and generally supersedes those provisions of the collaboration agreement that relate to the co-promotion of Nexavar in the United States. Outside of the United States, the terms of the collaboration agreement continue to govern. Under the terms of the co-promotion agreement and consistent with the collaboration agreement, the Company and Bayer share equally in the profits or losses of Nexavar, if any, in the United States. If for any reason the Company does not continue to co-promote in the United States, but continue to co-fund development worldwide (excluding Japan), Bayer would first receive a portion of the product revenues to repay Bayer for its commercialization infrastructure, before determining the Company's share of profits and losses in the United States.

Pfizer

In May 1995, the Company entered into a research and development collaboration agreement with Warner-Lambert Company, now a subsidiary of Pfizer, Inc., or Pfizer, to discover and commercialize small molecule drugs that restore control of, or otherwise intervene in, the misregulated cell cycle in tumor cells. Under this agreement, the Company developed screening tests, or assays, for jointly selected targets and transferred these assays to Pfizer for screening of their compound library to identify active compounds. The discovery research term under the agreement ended in August 2001. Pfizer is responsible for subsequent medicinal chemistry and preclinical investigations on the active compounds. In addition, Pfizer is obligated to conduct and fund all clinical development, make regulatory filings and manufacture for sale any approved collaboration compounds. The Company is entitled to receive payments upon achievement of certain clinical development milestones and upon registration of any resulting products, and is entitled to receive royalties on worldwide sales of the products. Pfizer has identified a small molecule lead compound, PD 0332991, an inhibitor of cyclin-dependent kinase 4/6, or CDK 4/6, and began clinical testing with this drug candidate in 2004. In accordance with the Company's collaboration agreement, it earned a \$1.0 million milestone payment from Pfizer in December 2009 upon the initiation of a Phase 2 trial. To date, the Company has earned \$1.5 million in milestone fees from Pfizer relating to this drug candidate.

BTG

In November 2008, the Company licensed a novel targeted oncology compound, ONX 0801, from BTG. Under the terms of the agreement, the Company obtained a worldwide license for ONX 0801 and all of its related patents. The Company received exclusive worldwide marketing rights and is responsible for all product development and commercialization activities. The Company paid BTG a \$13.0 million upfront payment, a \$7.0 million milestone payment in 2009 and may be required to make additional payments of up to \$65.0 million upon the attainment of certain global development and regulatory milestones, plus additional milestone payments upon the achievement of certain marketing approvals and commercial milestones. The Company is also required to pay royalties to BTG on any future product sales.

S*BIO

In December 2008, the Company entered into a development collaboration, option and license agreement with S*BIO pursuant to which the Company acquired options to license rights to each of ONX 0803 and ONX 0805. Under the terms of the agreement, the Company has obtained options, which if the Company exercises, would give it rights to exclusively develop and commercialize ONX 0803 and ONX 0805 for all potential indications in the United States, Canada and Europe. S*BIO will retain responsibility for all development costs prior to the option exercise, after which the Company will assume development costs for the U.S., Canada and Europe, subject to S*BIO's option to fund a portion of the development costs in return for enhanced royalties on any future product sales. Upon the exercise of the Company's option of either compound, S*BIO is entitled to receive a one-time fee, milestones upon achievement of certain development and sales levels and royalties on future product sales. Under the terms of the agreement, in December 2008 the Company made a \$25.0 million payment to S*BIO, including an up-front payment and an equity investment in S*BIO.

Note 3. Revenue from Collaboration Agreement

Nexavar is currently marketed and sold primarily in the United States and the European Union for the treatment of advanced kidney cancer and unresectable liver cancer. Nexavar also has regulatory applications pending in other territories internationally. The Company co-promotes Nexavar in the United States with Bayer Healthcare Pharmaceuticals Corporation Inc., or Bayer, under collaboration and co-promotion agreements. In March 2006, the Company and Bayer entered into a co-promotion agreement to co-promote Nexavar in the United States. This agreement amends the collaboration agreement and supersedes the provisions of that agreement that relate to the co-promotion of Nexavar in the United States. Outside of the United States, the terms of the collaboration agreement continue to govern. Under the terms of the co-promotion agreement and consistent with the collaboration agreement, the Company and Bayer share equally in the profits or losses of Nexavar, if any, in the United States, subject only to the Company's continued co-funding of the development costs of Nexavar worldwide outside of Japan and the Company's continued co-promotion of Nexavar in the United States. The collaboration was created through a contractual arrangement, not through a joint venture or other legal entity.

Outside of the United States, excluding Japan, Bayer incurs all of the sales and marketing expenditures, and the Company reimburses Bayer for half of those expenditures. In addition, for sales generated outside of the United States, excluding Japan, the Company reimburses Bayer a fixed percentage of sales for their marketing infrastructure. Research and development expenditures on a worldwide basis, excluding Japan, are equally shared by both companies regardless of whether the Company or Bayer incurs the expense. In Japan, Bayer is responsible for all development and marketing costs, and the Company receives a royalty on net sales of Nexavar.

In the United States, Bayer provides all product distribution and all marketing support services for Nexavar, including managed care, customer service, order entry and billing. Bayer is compensated for distribution expenses based on a fixed percent of gross sales of Nexavar in the United States. Bayer is reimbursed for half of its expenses for marketing services provided by Bayer for the sale of Nexavar in the United States. The companies share equally in any other out-of-pocket marketing expenses (other than expenses for sales force and medical science liaisons) that the Company and Bayer incur in connection with the marketing and promotion of Nexavar in the United States. Bayer manufactures all Nexavar sold in the United States and is reimbursed at an agreed transfer price per unit for the cost of goods sold.

In the United States, the Company contributes half of the overall number of sales force personnel required to market and promote Nexavar and half of the medical science liaisons to support Nexavar. The Company and Bayer each bears its own sales force and medical science liaison expenses. These expenses are not included in the calculation of the profits or losses of the collaboration.

Revenue from collaboration agreement consists of the Company's share of the pre-tax commercial profit generated from its collaboration with Bayer, reimbursement of the Company's shared marketing costs related to Nexavar and royalty revenue. Under the collaboration, Bayer recognizes all sales of Nexavar worldwide. The Company records revenue from collaboration agreement on a quarterly basis. Revenue from collaboration agreement is derived by calculating net sales of Nexavar to third-party customers and deducting the cost of goods sold, distribution costs, marketing costs (including without limitation, advertising and education expenses, selling and promotion expenses, marketing personnel expenses and Bayer marketing services expenses), Phase 4 clinical trial costs and allocable overhead costs. Reimbursement by Bayer of the Company's shared marketing costs related to Nexavar and royalty revenue is also included in the revenue from collaboration agreement line item.

The Company's portion of shared collaboration research and development expenses is not included in this line item, but is reflected under operating expenses. According to the terms of the collaboration agreement, the companies share all research and development, marketing and non-U.S. sales expenses. United States sales force and medical science liaison expenditures incurred by both companies are borne by each company separately and are not included in the calculation. Some of the revenue and expenses recorded to derive the revenue from collaboration agreement during the period presented are estimates of both parties and are subject to further adjustment based on each party's final review should actual results differ from these estimates.

Revenue from collaboration agreement was \$250.4 million, \$194.3 million and \$90.4 million for the years ended December 31, 2009, 2008 and 2007, respectively, calculated as follows:

| | Year Ended December 31, | | | | |
|---|-------------------------|----------------|------------|--|--|
| | 2009 | 2008 | 2007 | | |
| | | (In thousands) | | | |
| Onyx's share of collaboration commercial profit | \$ 220,567 | \$ 169,334 | \$ 74,027 | | |
| Reimbursement of Onyx's shared marketing expenses | 23,514 | 22,185 | 16,402 | | |
| Royalty income | 6,309 | 2,824 | <u>-</u> _ | | |
| Revenue from collaboration agreement | \$ 250,390 | \$ 194,343 | \$ 90,429 | | |

As of December 31, 2009, 2008 and 2007, the Company has invested \$493.5 million, \$392.1 million and \$302.3 million, respectively, in the development of Nexavar, representing its share of the costs incurred to date under the collaboration.

Note 4. Acquisition of Proteolix

On November 16, 2009, or the Acquisition Date, the Company acquired Proteolix under the terms of an agreement and plan of merger, or the Merger Agreement, entered into in October 2009. Proteolix was a privately-held biopharmaceutical company located in South San Francisco, California. Proteolix focused primarily on the discovery and development of novel therapies that target the proteasome for the treatment of hematological malignancies, solid tumors and autoimmune disorders. Proteolix's lead compound, carfilzomib, is a proteasome inhibitor currently in multiple clinical trials, including an advanced Phase 2b clinical trial for patients with relapsed and refractory multiple myeloma. This acquisition provided the Company with an opportunity to expand into the hematological malignancies market.

Under the Merger agreement, the aggregate consideration payable by the Company to former Proteolix stockholders at closing consisted of \$276.0 million in cash, less \$27.6 million that is temporarily held in an escrow account that would be released subject to terms described below under *Escrow Account Liability*. In addition, the Company may be required to pay up to an additional \$575.0 million in earnout payments as outlined below under *Liability for Contingent Consideration*.

In accordance with the Merger Agreement, each issued and outstanding share of Proteolix capital stock was cancelled and converted into the right to receive the merger consideration described in the Merger Agreement. In addition, all outstanding stock options and warrants to purchase Proteolix shares vested in full were cancelled and converted into the right to receive the merger consideration for each Proteolix share subject to the option or warrant. Subject to the terms and conditions set forth in the Merger Agreement, the Company may, in its sole discretion, make any of the required earnout payments (with the exception of the first earnout payment) that become payable to former holders of Proteolix preferred stock in the form of cash, shares of Onyx common stock or a combination thereof.

The Proteolix acquisition was accounted for as a business combination in accordance with the guidance ASC Topic 805. The operating results of Proteolix from November 16, 2009 to December 31, 2009 have been included in the Company's Consolidated Statements of Operations. The Company's Consolidated Balance Sheets as of December 31, 2009 reflects the acquisition of Proteolix, effective November 16, 2009, the date the Company obtained control of Proteolix. The Acquisition Date fair value of the total consideration transferred was \$475.0 million, which consisted of the following:

| | _ | Fair Value of Consideration Transferred |
|--------------------------|----|---|
| | | (In thousands) |
| Cash | \$ | 276,000 |
| Contingent consideration | _ | 199,000 |
| Total | \$ | 475,000 |

The following table summarizes the estimated fair values of the assets acquired and liabilities assumed at Acquisition Date:

| | November 16, 2009 (In thousands) |
|---------------------------------------|----------------------------------|
| Cash | \$ 23,486 |
| Prepaids and other current assets | 181 |
| Property and equipment, net | 4,435 |
| Intangible assets — IPR&D | 438,800 |
| Total identifiable assets | 466,902 |
| Accounts payable | (427) |
| Accrued clinical expenses | (8,762) |
| Accrued and other current liabilities | (6,456) |
| Accrued property lease liability | (4,682) |
| Current and non-current notes payable | (8,160) |
| Deferred tax liabilities | (157,090) |
| Total liabilities assumed | (185,577) |
| Net identifiable assets acquired | 281,325 |
| Goodwill | 193,675 |
| Net assets acquired | \$ 475,000 |

The Company used a combination of the market and cost approaches to estimate the fair values of the Proteolix assets acquired and liabilities assumed.

Intangible Assets — IPR&D

Intangible assets for IPR&D consist primarily of Proteolix's IPR&D programs resulting from the Company's acquisition of Proteolix, including their lead compound, carfilzomib and two other product candidates (ONX 0912 and ONX 0914). The Company determined that the combined estimated Acquisition Date fair values of carfilzomib, ONX 0912 and ONX 0914 was \$438.8 million. The Company used an income approach, which is a measurement of the present value of the net economic benefit or cost expected to be derived from an asset or liability, to measure the fair value of carfilzomib and a cost approach to measure the fair values of ONX 0912 and ONX 0914. Under the income approach, an intangible asset's fair value is equal to the present value of the incremental after-tax cash flows (excess earnings) attributable solely to the intangible asset over its remaining useful life. Under the cost approach, an intangible asset's fair value is equal to the costs incurred to-date to develop the asset to its current stage.

To calculate fair value of carfilzomib under the income approach, the Company used probability-weighted cash flows discounted at a rate considered appropriate given the inherent risks associated with this type of asset. The Company estimated the fair value of this asset using a present value discount rate based on the estimated weighted-average cost of capital for companies with profiles substantially similar to that of Proteolix. This is comparable to the estimated internal rate of return for Proteolix's operations and represents the rate that market participants would use to value this asset. Cash flows were generally assumed to extend either through or beyond the patent life of the asset, depending on the circumstances particular to the asset. In addition, the Company compensated for the phase of development for this program by probability-adjusting the Company's estimation of the expected future cash flows. The Company believes that the level and timing of cash flows appropriately reflect market participant assumptions. The projected cash flows from this project was based on key assumptions such as estimates of revenues and operating profits related to the project considering its stage of development; the time and resources needed to complete the development and approval of the related product candidate; the life of the potential commercialized product and associated risks, including the inherent difficulties and uncertainties in developing a drug compound such as obtaining marketing approval from the FDA and other regulatory agencies; and risks related to the viability of and potential alternative treatments in any future target markets. The resultant probability-weighted cash flows were then discounted using a rate the Company believes is appropriate and representative of a market participant assumption.

For the other two intangible assets acquired, ONX 0912 and 0914, the Company used the costs incurred to-date by Proteolix to develop these assets to their current stage as their fair value as result of the lack of financial projections for these assets in their current development stages.

These IPR&D programs represent Proteolix's incomplete research and development projects, which had not yet reached technological feasibility at the Acquisition Date. A summary of these programs and estimated fair values at the Acquisition Date, as well as status of development is as follows:

| Product Candidates | Description | Acqu F | uisition Date air Value thousands) |
|--------------------|---|-----------|------------------------------------|
| Carfilzomib | First in a new class of selective and irreversible proteasome inhibitors associated with prolonged target suppression, improved antitumor activity and low neurotoxicity for treatment against multiple myeloma and solid tumors. | \$ | 435,000 |
| ONX 0912 | Oral proteasome inhibitor for treatment against hematologic and solid tumors. | | 3,500 |
| ONX 0914 | Immunoproteasome inhibitor for treatment against rheumatoid arthritis and inflammatory bowel disease. | | 300 |
| | | \$ | 438,800 |

Goodwill

The excess of the consideration transferred over the fair values assigned to the assets acquired and liabilities assumed was \$193.7 million, which represents the goodwill amount resulting from the acquisition. None of the goodwill is expected to be deductible for income tax purposes. The Company will test goodwill for impairment on an annual basis or sooner, if deemed necessary. As of December 31, 2009, there were no changes in the recognized amount of goodwill resulting from the acquisition of Proteolix.

Liability for Contingent Consideration

In addition to the cash consideration paid to Proteolix, the Company may be required to pay up to an additional \$575.0 million in earnout payments upon the receipt of certain regulatory approvals and the satisfaction of other milestones. The first earnout payment of \$40.0 million is expected to be paid in 2010, 180 days after completion of enrollment in an ongoing pivotal Phase 2b clinical study involving relapsed and refractory multiple myeloma patients, known as the "003-A1" trial. The remaining \$535.0 million of earnout payments will become payable in up to four additional installments, upon the achievement of regulatory approvals in the U.S. and Europe within pre-specified timeframes for carfilzomib as follows:

- \$170.0 million would be triggered by the achievement of accelerated marketing approval in the United States for relapsed/refractory multiple myeloma;
- \$65.0 million would be triggered by marketing approval in the European Union for relapsed/refractory multiple myeloma;
- \$150.0 million would be triggered by marketing approval in the United States for relapsed multiple myeloma; and
- \$150.0 million would be triggered by marketing approval for relapsed multiple myeloma in the European Union.

The range of the undiscounted amounts the Company could be required to pay for these earnout payments is between \$40.0 and \$575.0 million. The fair value of the liability for the contingent consideration recognized on the acquisition date was \$199.0 million, of which \$40.0 million related to the first milestone payment is classified as a current liability in the Consolidated Balance Sheet. The Company determined the fair value of the liability for the contingent consideration based on a probability-weighted discounted cash flow analysis. This fair value measurement is based on significant inputs not observable in the market and thus represents a Level 3 measurement within the fair value hierarchy. The fair value of the contingent consideration liability associated with those future earnout payments was based several factors including:

- estimated cash flows projected from the success of unapproved product candidates;
- the probability of technical and regulatory success for unapproved product candidates considering their stages of development;
- the time and resources needed to complete the development and approval of product candidates;
- the life of the potential commercialized products and associated risks, including the inherent difficulties and uncertainties in developing a product candidate such as obtaining FDA and other regulatory approvals; and
- risk associated with uncertainty, achievement and payment of the milestone events.

The resultant probability-weighted cash flows were then discounted using a rate that reflects the uncertainty surrounding the expected outcomes, which the Company believes is appropriate and representative of a market participant assumption.

Escrow Account Liability

Of the \$276.0 million total cash consideration payable to former Proteolix stockholders, \$27.6 million was placed in an escrow account to be held until December 31, 2010 to secure the indemnification rights of Onyx and other

indemnitees with respect to certain matters, including breaches of representations, warranties and covenants of Proteolix included in the Merger Agreement. This amount is reported as restricted cash on the Company's Consolidated Balance Sheet at December 31, 2009, and the Company expects to payout the entire amount.

Deferred Tax Liabilities

The \$157.1 million of deferred tax liabilities resulting from the acquisition was primarily related to the difference between the book basis and tax basis of the intangible assets related to the IPR&D projects.

Acquisition-Related Transaction Costs

The Company recognized \$5.5 million of acquisition-related transaction costs that were expensed in the year ended December 31, 2009 and are included in the "Selling, general and administrative" expense line item in the Consolidated Statements of Operations under operating expenses for the year ended December 31, 2009.

Revenue and Earnings

Proteolix did not record any revenue for the period from the Acquisition Date to December 31, 2009. The net loss of Proteolix included in the Company's Consolidated Statements of Operations is as follows:

| | N | ovember 16, 2009 - |
|----------|----|--------------------|
| | 1 | December 31, 2009 |
| | | (In thousands) |
| Net loss | \$ | 8,503 |

Pro Forma Information

The following unaudited supplemental pro forma information presents the Company's financial results as if the acquisition of Proteolix had occurred on January 1, 2008. This supplemental pro forma information has been prepared for comparative purposes and does not purport to be indicative of what would have occurred had the acquisition been made on January 1, 2008, nor are they indicative of any future results.

| | | Tear Ended D | ousands, except per sh data) 3,316) \$ (45,5 | |
|--------------------------|-----|--------------|--|-----------|
| | | 2009 | | 2008 |
| | (In | , | | per share |
| Net loss | \$ | (33,316) | \$ | (45,519) |
| Basic net loss per share | \$ | (0.56) | \$ | (0.81) |

These amounts have been calculated after applying the Company's accounting policies and adjusting the results of Proteolix to reflect the adjustments to depreciation expense and rent expense assuming the fair value adjustments to property and equipment and rental obligations had been applied on January 1, 2008.

Note 5. Fair Value Measurements

In accordance with ASC Subtopic 820-10, formerly known as SFAS 157 "Fair Value Measurements," the Company measures certain assets and liabilities at fair value on a recurring basis using the three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value. The three tiers include:

- Level 1, defined as observable inputs such as quoted prices for identical assets in active markets;
- Level 2, defined as inputs other than quoted prices in active markets that are either directly or indirectly observable; and
- Level 3, defined as unobservable inputs in which little or no market data exists, therefore requiring management to develop its own assumptions based on best estimates of what market participants would use in pricing an asset or liability at the reporting date.

Vear Ended December 31

The Company's fair value hierarchies for its financial assets and liabilities (cash equivalents, current and non-current marketable securities, current and non-current liability from contingent consideration and convertible senior notes), which require fair value measurement on a recurring basis are as follows:

| | | | | As | of Dece | ember 31, 200 | 9 | | | |
|---|----|---|----|---------|---------|----------------------|----|---------|----|---------|
| | u | s reflected on the naudited balance sheet | _ | Level 1 | | Level 2 | | Level 3 | _ | Total |
| Assets: | | | | | | | | | | |
| Money market funds | \$ | 83,115 | \$ | 83,115 | \$ | - | \$ | - | \$ | 83,115 |
| Corporate and financial | | | | | | | | | | |
| institutions debt | | 110,644 | | - | | 110,644 | | - | | 110,644 |
| Auction rate securities | | 37,274 | | - | | 100 | | 37,174 | | 37,274 |
| U.S. government agencies | | 168,692 | | - | | 168,692 | | - | | 168,692 |
| U.S. treasury bills | | 183,090 | | 183,090 | | - | | - | | 183,090 |
| Total | \$ | 582,815 | \$ | 266,205 | \$ | 279,436 | \$ | 37,174 | \$ | 582,815 |
| Liabilities: | | | | | | | | | | |
| Liability for contingent consideration, current | | | | | | | | | | |
| and non-current | \$ | 200,528 | \$ | - | \$ | - | \$ | 200,528 | \$ | 200,528 |
| Convertible senior notes due 2016 (face value | | 1.12.660 | | | | 2.42.000 | | | | 242.000 |
| \$230,000) | | 143,669 | _ | | _ | 242,098 | _ | | _ | 242,098 |
| | \$ | 344,197 | \$ | | \$ | 242,098 | \$ | 200,528 | \$ | 442,626 |
| | | | | As | of Dec | ember 31, 200 | 8 | | | |
| | | as reflected on the unaudited alance sheet | _ | Level 1 | (In t | Level 2 housands) | _ | Level 3 | _ | Total |
| Assets: | | | | | | | | | | |
| Money market funds | \$ | 113,832 | \$ | 113,832 | \$ | - | \$ | - | \$ | 113,832 |
| Corporate debt | | 109,866 | | - | | 109,866 | | - | | 109,866 |
| Auction rate securities | | 39,622 | | - | - | - | | 39,622 | | 39,622 |
| U.S. government agencies | | 143,376 | | | - | 143,376 | | - | | 143,376 |
| U.S. treasury bills | | 49,993 | _ | 49,993 | _ | - | _ | _ | | 49,993 |
| Total | \$ | 456,689 | \$ | 163,825 | \$ | 253,242 | \$ | 39,622 | \$ | 456,689 |

Auction Rate Securities

Auction rate securities are level 3 assets classified as available for sale securities and are reflected at fair value. In February 2008, auctions began to fail for the auction rate securities and each auction for the majority of these securities since then has failed. As of December 31, 2009 the fair value of each of these securities is estimated

utilizing a discounted cash flow analysis. The following table provides a summary of changes in fair value of the Company's auction rate securities:

| | | on Rate Securities ided December 31, |
|-----------------------------------|-----------|---|
| | 2009 | 2008 |
| | (I | n thousands) |
| Fair value at beginning of period | \$ 39,622 | \$ 50,000 |
| Redemptions | (5,600 | (5,000) |
| Transfer to Level 2 | 100 | - |
| Change in valuation | (3,052 | (5,378) |
| Fair value at end of period | \$ 37,174 | \$ 39,622 |

As a result of the decline in fair value of the Company's auction rate securities, which the Company believes is temporary and attributes to liquidity rather than credit issues, the Company has recorded an unrealized loss of \$2.0 million and \$5.4 million for the years ended December 31, 2009 and 2008, respectively, included in the accumulated other comprehensive income (loss) line of stockholders' equity. All of the auction rate securities held by the Company at December 31, 2009, consist of securities collateralized by student loan portfolios, which are substantially guaranteed by the United States government. Any future fluctuation in fair value related to the non-current marketable securities that the Company deems to be temporary, including any recoveries of previous write-downs, will be recorded in accumulated other comprehensive income (loss). If the Company determines that any decline in fair value is other than temporary, it will record a charge to earnings as appropriate.

Liability for Contingent Consideration

The Company recorded acquisition-related liabilities for contingent consideration representing the amounts payable to former Proteolix stockholders, as outlined under the terms of the Merger Agreement, upon the achievement of specified regulatory approvals within pre-specified timeframes for carfilzomib. The fair values of these level 3 liabilities are estimated using a probability-weighted discounted cash flow analysis. Subsequent changes in the fair value of these contingent consideration liabilities will be recorded to the "Contingent consideration" expense line item in the Consolidated Statements of Operations under operating expenses. From the acquisition date through December 31, 2009, the recognized amount of the liability for contingent consideration increased by \$1.5 million as result of the change in fair value from the passage of time.

| | r Contingent Consideration aded December 31, 2009 |
|-----------------------------------|--|
| | (In thousands) |
| Fair value at beginning of period | \$ 199,000 |
| Change in valuation | 1,528 |
| Fair value at end of period | \$ 200,528 |

Convertible Senior Notes due 2016

The estimated fair value of the Company's 2016 Notes as of December 31, 2009 is provided in accordance with ASC Subtopic 825-10, formerly known as SFAS 107, "Disclosures About Fair Value of Financial Instruments (as amended)." The Company's 2016 Notes are not marked-to-market and are shown in the accompanying consolidated balance sheet at their original issuance value net of amortized discount.

Note 6. Marketable Securities

Marketable securities consist of investments that are subject to concentration of credit risk that are classified as "available for sale." To mitigate credit risk, the Company invests in marketable debt securities, primarily United States government securities, agency bonds and corporate bonds and notes, with investment grade ratings. Such securities are reported at fair value, with unrealized gains and losses excluded from earnings and shown separately

as a component of accumulated other comprehensive income (loss) within stockholders' equity. The Company limits the amount of investment exposure as to institution, maturity, and investment type. Such securities are reported at fair value, with unrealized gains and losses excluded from earnings and shown separately as a component of accumulated other comprehensive income (loss) within stockholders' equity. The Company may pay a premium or receive a discount upon the purchase of marketable securities. Interest earned and gains realized on marketable securities and amortization of discounts received and accretion of premiums paid on the purchase of marketable securities are included in investment income. There was a realized loss of \$32,000 for the year ended December 31, 2009, a realized gain of \$483,000 for the year ended December 31, 2007. The weighted average maturity of the Company's marketable securities as of December 31, 2009 was six months.

Available-for-sale marketable securities consisted of the following:

| | December 31, 2009 | | | | | | | |
|--|-------------------|------------------|----|-----------------------------|----|--------------------------|----|------------------------|
| | | Adjusted Cost | | ealized Sains (In the | | realized Losses s) | | Estimated air Value |
| Agency bond investments: | | | | | | | | |
| Current | \$ | 349,254 | \$ | 162 | \$ | (156) | \$ | 349,260 |
| Total agency bond investments | _ | 349,254 | | 162 | | (156) | | 349,260 |
| Corporate debt investments: | | | | | | - | | |
| Current | | 93,119 | | 92 | | (31) | | 93,180 |
| Non-current | | 39,200 | | _ | | (2,026) | | 37,174 |
| Total corporate investments | | 132,319 | | 92 | | (2,057) | | 130,354 |
| Total available-for-sale marketable securities | \$ | 481,573 | \$ | 254 | \$ | (2,213) | \$ | 479,614 |

| | December 31, 2008 | | | | | | | |
|--|-------------------|------------------|----|-------------------------|----|-----------------------------------|----|-------------------------|
| | _ | Adjusted Cost | | Unrealized Gains (In th | | Unrealized Losses housands) | | Estimated Fair Value |
| Agency bond investments: | | | | | | | | |
| Current | \$ | 132,319 | \$ | 1,054 | \$ | (4) | \$ | 133,369 |
| Total agency bond investments | | 132,319 | | 1,054 | | (4) | | 133,369 |
| Corporate debt investments: | | | | | | | | |
| Current | | 49,903 | | - | | - | | 49,903 |
| Non-current | | 45,000 | | _ | | (5,378) | | 39,622 |
| Total corporate investments | | 94,903 | | | _ | (5,378) | | 89,525 |
| Total available-for-sale marketable securities | \$ | 227,222 | \$ | 1,054 | \$ | (5,382) | \$ | 222,894 |

The Company's investment portfolio includes \$39.3 million of AAA rated auction rate securities that are collateralized by student loans. Since February 2008, these types of securities have experienced failures in the auction process. However, a limited number of these securities have been redeemed at par by the issuing agencies. As a result of the auction failures, interest rates on these securities reset at penalty rates linked to LIBOR or Treasury bill rates. The penalty rates are generally higher than interest rates set at auction. Due to the failures in the auction process, these securities are not currently liquid. Of the \$39.3 million of par value auction rate securities, \$0.1 million in securities were redeemed at par in January 2010. Therefore, the Company has classified a portion of the auction rate securities with a fair value of \$0.1 million, based on the amount redeemed in January 2010, as current marketable securities and the remaining auction rate securities with an estimated fair value of \$37.2 million, based on a discounted cash flow model, as non-current marketable securities on the accompanying unaudited balance sheet at December 31, 2009. The Company has reduced the carrying value of the marketable securities

classified as non-current by \$2.0 million through accumulated other comprehensive income or loss instead of earnings because the Company has deemed the impairment of these securities to be temporary.

Note 7. Property and Equipment

Property and equipment consist of the following:

| | December 31, | | | |
|--|----------------|---------|----|---------|
| | | 2009 | | 2008 |
| | (In thousands) | | |) |
| Computers, machinery and equipment | \$ | 6,323 | \$ | 4,352 |
| Furniture and fixtures | | 1,056 | | 620 |
| Leasehold and tenant improvements | | 6,078 | | 1,934 |
| Construction in progress | | _ | _ | 816 |
| | | 13,457 | | 7,722 |
| | | (5,984) | | (4,359) |
| Less accumulated depreciation and amortization | \$ | 7,473 | \$ | 3,363 |

Depreciation expense was \$1.6 million, \$1.3 million and \$1.0 million for the years ended December 31, 2009, 2008 and 2007, respectively.

Note 8. Other Long-Term Assets

In December 2008, the Company entered into a development collaboration, option and license agreement with S*BIO. Under the terms of the agreement, in December 2008, the Company made a \$25.0 million payment to S*BIO, of which the Company recognized an up-front payment of \$20.7 million and an equity investment of \$4.3 million. For the year ended December 31, 2009, \$4.3 million of this long-term private equity investment was included in other long-term assets. The equity investment is accounted for using the cost method of accounting. Although S*BIO qualifies as a variable interest entity, or VIE, as the Company is not its primary beneficiary, consolidation is not required.

Note 9. Convertible Senior Notes due 2016

In August 2009, the Company issued \$230.0 million aggregate principal amount of 4.0% convertible senior notes due 2016, or the 2016 Notes. The 2016 Notes will mature on August 15, 2016 unless earlier redeemed or repurchased by the Company or converted. The 2016 Notes bear interest at a rate of 4.0% per year, payable semi-annually in arrears on February 15 and August 15 of each year, commencing on February 15, 2010.

The 2016 Notes are general unsecured senior obligations of the Company and rank equally in right of payment with all of the Company's future senior unsecured indebtedness, if any, and senior in right of payment to the Company's future subordinated debt, if any.

On or after May 15, 2016, the 2016 Notes will be convertible, under certain circumstances and during certain periods, at an initial conversion rate of 25.2207 shares of common stock per \$1,000 principal amount of the 2016 Notes, which is equivalent to an initial conversion price of approximately \$39.65 per share of common stock. The conversion rate is subject to adjustment in certain circumstances. Upon conversion of a 2016 Note, the Company will deliver, at its election, shares of common stock, cash or a combination of cash and shares of common stock.

Upon the occurrence of certain fundamental changes involving the Company, holders of the 2016 Notes may require the Company to repurchase all or a portion of their 2016 Notes for cash at a price equal to 100% of the principal amount of the 2016 Notes to be purchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

Beginning August 20, 2013, the Company may redeem all or part of the outstanding 2016 Notes, provided that the last reported sale price of the common stock for 20 or more trading days in a period of 30 consecutive trading days ending on the trading day prior to the date the Company provides the notice of redemption to holders of the 2016

Notes exceeds 130% of the conversion price in effect on each such trading day. The redemption price will equal 100% of the principal amount of the 2016 Notes to be redeemed, plus all accrued and unpaid interest, plus a "make-whole premium" payment. The Company must make the make-whole premium payments on all 2016 Notes called for redemption prior to August 15, 2016, including the 2016 Notes converted after the date the Company delivered the notice of redemption.

The 2016 Notes are accounted for in accordance with ASC Subtopic 470-20, formerly known as FASB Staff Position Accounting Principles Board 14-1. Under ASC Subtopic 470-20 issuers of certain convertible debt instruments that have a net settlement feature and may be settled in cash upon conversion, including partial cash settlement, are required to separately account for the liability (debt) and equity (conversion option) components of the instrument. The carrying amount of the liability component of any outstanding debt instrument is computed by estimating the fair value of a similar liability without the conversion option. The amount of the equity component is then calculated by deducting the fair value of the liability component from the principal amount of the convertible debt instrument.

The following is a summary of the principal amount of the liability component of the 2016 Notes, its unamortized discount and its net carrying amount:

| | | December 31, 2009 | | | | | | |
|--------------------|----|--------------------|----|--------------|--------------------|---------|--|--|
| Long-Term | | Principal Discount | | Discount | Net Carrying Value | | | |
| | | | | (In thousand | ds) | | | |
| 2016 Notes — 4.00% | \$ | 230,000 | \$ | (86,331) | \$ | 143,669 | | |

The effective interest rate used in determining the liability component of the 2016 Notes was 12.5%. The application of ASC Subtopic 470-20 resulted in an initial recognition of \$89.5 million as the debt discount with a corresponding increase to paid-in capital, the equity component, for the 2016 Notes. The debt discount and debt issuance costs are amortized as interest expense through August 2016. The cash interest expense for the year ended December 31, 2009 for the 2016 Notes was \$3.5 million relating to the 4.0% stated coupon rate. The non-cash interest expense relating to the amortization of the debt discount for the 2016 Notes for the year ended December 31, 2009 was \$3.1 million.

Note 10. Advance from Collaboration Partner

During the period from August 2002 through January 2006, the Company received four development payments from Bayer totaling \$40.0 million. Pursuant to its collaboration agreement, these amounts were repayable to Bayer from a portion of the Company's share of any quarterly collaboration profits and royalties after deducting certain contractually agreed upon expenditures. These development payments contained no provision for interest. As of December 31, 2009, the Company had repaid the entire amount of development payments due to Bayer. The balance due to Bayer as of December 31, 2008 was \$16.6 million and is included in the caption "Advance from collaboration partner" in the accompanying Consolidated Balance Sheet.

Note 11. Facility Leases

In 2004, the Company entered into an operating lease for 23,000 square feet of office space in Emeryville, California, which serves as the Company's corporate headquarters. In 2006, the Company amended its existing operating lease to occupy an additional 14,000 square feet of office space in addition to the 23,000 square feet already occupied in Emeryville, California. The lease expires on March 31, 2013. In 2008, the Company entered into another operating lease for an additional 23,000 square feet of office space in Emeryville, California. This lease expires on November 30, 2013.

In addition, the Company acquired an operating lease in South San Francisco, California through its acquisition of Proteolix. The lease, which expires October 2014, includes 67,000 square feet of office and laboratory space and has options to extend the lease for two additional one-year terms after the initial lease expiration. The lease provide for fixed increases in minimum annual rental payments, as well as rent free periods. As a result of the Company determining that the estimated fair value of the operating lease was less than the rent obligations, the Company recorded a liability for the difference between the rent obligations and the estimated fair value. This liability will be amortized over the life of the lease using the effective interest rate method.

The Company also has a lease for 9,000 square feet of space in a secondary facility in Richmond, California. The lease for this facility expires in September 2010 with renewal options at the end of the lease for two subsequent five-year terms. In September 2002, the Company entered into a sublease agreement for this space through September 2010.

Minimum annual rental commitments, net of sublease income, under all operating leases at December 31, 2009 are as follows (in thousands):

| Year ending December 31: | |
|--------------------------|-----------|
| 2010 | \$ 4,328 |
| 2011 | 4,510 |
| 2012 | 4,729 |
| 2013 | 3,948 |
| 2014 | 2,583 |
| | \$ 20,098 |

Rent expense, net of sublease income, for the years ended December 31, 2009, 2008 and 2007 was approximately \$1.8 million, \$1.0 million and \$1.1 million, respectively. Sublease income was \$54,000, \$72,000 and \$88,000 for the years ended December 31, 2009, 2008 and 2007, respectively.

Note 12. Related Party Transactions

The Company's related parties consists of its directors and officers. Transactions with officers and directors include notes receivable as described below.

At December 31, 2009, the Company had a loan with a non-executive employee of which \$151,000 was outstanding. The loan bears interest at 0.72% per annum and is payable in a lump sum within eighteen months from the date of the loan.

Note 13. 401(k) Plan

The Company has a 401(k) Plan that covers substantially all of its employees. Under the 401(k) Plan, eligible employees may contribute up to \$16,500 of their eligible compensation, subject to certain Internal Revenue Service restrictions. Historically, the Company did not match employee contributions in the 401(k) Plan. Beginning in fiscal year 2008, Onyx provided a discretionary company match to employee contributions of \$0.50 per dollar contributed, up to a maximum match of \$3,500 in any calendar year. The Company incurred total expenses of \$683,000 and \$548,000 related to 401(k) contribution matching for the years ended December 31, 2009 and 2008, respectively.

Note 14. Stockholders' Equity

Stock Options and Employee Stock Purchase Plan

The Company has one stock option plan from which it is able to grant new awards, the 2005 Equity Incentive Plan, or the "2005 Plan." Prior to adoption of the 2005 Plan, the Company had two stock option plans, the 1996 Equity Incentive Plan and the 1996 Non-Employee Directors' Stock Option Plan. Following is a brief description of the prior plans:

1) The 1996 Equity Incentive Plan, or the "1996 Plan," which amended and restated the 1992 Incentive Stock Plan in March 1996. The Company's Board of Directors reserved 1,725,000 shares of common stock for issuance under the 1996 Plan. At the Company's annual meetings of stockholders in subsequent years, stockholders approved reserving an additional 4,100,000 shares of common stock for issuance under the 1996 Plan. The 1996 Plan provides for grants to employees of either nonqualified or incentive options and provides for the grant to consultants of the Company of nonqualified options. Stock options may be granted with an exercise price not less than 100% of the fair market value of the common stock on the date of grant. Stock options are generally granted with terms of up to ten years and vest over a period of four years.

2) The 1996 Non-Employee Directors' Stock Option Plan, or the "Directors' Plan," which was approved in March 1996 and reserved 175,000 shares for issuance to provide for the automatic grant of nonqualified options to purchase shares of common stock to non-employee Directors of the Company. At the Company's annual meetings of stockholders in subsequent years, stockholders approved reserving an additional 250,000 shares of common stock for issuance under the Directors' Plan. Stock options may be granted with an exercise price not less than 100% of the fair market value of the common stock on the date of grant. Stock options are generally granted with terms of up to ten years and vest over a period of four years.

The 2005 Plan was approved at the Company's annual meeting of stockholders to supersede and replace both the 1996 Plan and the Directors' Plan and reserved 7,560,045 shares of common stock for issuance under the Plan, consisting of (a) the number of shares remaining available for grant under the Incentive Plan and the Directors' Plan, including shares subject to outstanding stock awards under those plans, and (b) an additional 3,990,000 shares. Any shares subject to outstanding stock awards under the 1996 Plan and the Directors' Plan that expire or terminate for any reason prior to exercise or settlement are added to the share reserve under the 2005 Plan. All outstanding stock awards granted under the two prior plans remain subject to the terms of those plans. Subsequently, at annual meetings of stockholders, a total of 6,700,000 shares were approved to be added to the 2005 Plan reserve for a total of 14,260,045 shares available for issuance.

In March 1996, the Board of Directors adopted the Employee Stock Purchase Plan, or ESPP. The number of shares available for issuance over the term of the ESPP was limited to 400,000 shares. At the May 2007 Annual Meeting of Stockholders an additional 500,000 shares were added to the ESPP for a total of 900,000 shares available for issuance over the term of the ESPP. The ESPP is designed to allow eligible employees of the Company to purchase shares of common stock through periodic payroll deductions. The price of common stock purchased under the ESPP will be equal to 85% of the lower of the fair market value of the common stock on the commencement date of each offering period or the specified purchase date. Purchases of common stock shares made under the ESPP were 45,435 shares in 2009, 37,631 shares in 2008 and 73,611 shares in 2007. Since inception, a total of 465,673 shares have been issued under the ESPP, leaving a total of 434,327 shares available for issuance.

In December 2009, stock options were exercised that were not settled prior to December 31, 2009. The Company recorded a receivable from stock option exercises of \$5,000 at December 31, 2009 related to these stock options. This is included in the caption "Receivable from stock option exercises" in the accompanying consolidated balance sheets and consolidated statements of stockholders' equity as of December 31, 2009. The Company recorded a receivable from stock option exercises of \$455,000 at December 31, 2008, related to stock options exercised that had not settled prior to December 31, 2008.

Common Stock Offering

In August 2009, the Company sold 4,600,000 shares of its common stock at a price to the public of \$30.50 per share in an underwritten public offering pursuant to an effective registration statement previously filed with the Securities and Exchange Commission. The Company received cash proceeds, net of underwriting discounts and commissions, of approximately \$134.0 million from this public offering.

Preferred Stock

The Company's amended and restated certificate of incorporation provides that the Company's Board of Directors has the authority, without further action by the stockholders, to issue up to 5,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof, including dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of such series, without further vote or action by the stockholders. As of December 31, 2009, the Company had 5,000,000 shares of preferred stock authorized at \$0.001 par value, and no shares were issued or outstanding.

Warrants

A total of 743,229 warrants for the purchase of common stock were issued in connection with a private placement financing in May 2002. The exercise price of these warrants is \$9.59 per share. The \$4.4 million fair value of the

warrants was estimated on the date of grant using the Black-Scholes option valuation model with the following assumptions: a weighted-average risk-free interest rate of 4.29%, a contractual life of seven years, a volatility of 0.94 and no dividend yield, and accounted for as a stock issuance cost. Any of the outstanding warrants may be exercised by applying the value of a portion of the warrant, which is equal to the number of shares issuable under the warrant being exercised multiplied by the fair market value of the security receivable upon the exercise of the warrant, less the per share price, in lieu of payment of the exercise price per share. In 2004, the Company issued 553,835 shares of the Company's common stock upon the exercise of 703,689 warrants, on both a cash and net exercise basis. The Company received approximately \$355,000 in net cash proceeds from the exercise of warrants in 2004. In 2005, the Company issued 29,550 shares of the Company received approximately \$266,000 in net cash proceeds from the exercise basis. The Company received approximately \$266,000 in net cash proceeds from the exercise of warrants in 2005. In May 2009, the Company issued an aggregate of 5,852 shares of its common stock pursuant to a cashless net exercise of 9,259 warrants. As of December 31, 2009, no warrants remained outstanding.

Note 15. Stock-Based Compensation

The Company accounts for stock-based compensation of stock options granted to employees and directors and of employee stock purchase plan shares by estimating the fair value of stock-based awards using the Black-Scholes option-pricing model and amortizing the fair value of the stock-based awards granted over the applicable vesting period. The Black-Scholes option pricing model includes assumptions regarding dividend yields, expected volatility, expected option term and risk-free interest rates. The Company estimates expected volatility based upon a combination of historical and implied stock prices. The risk-free interest rate is based on the U.S. treasury yield curve in effect at the time of grant. The expected option term calculation incorporates historical employee exercise behavior and post-vesting employee termination rates. The Company accounts for stock-based compensation of restricted stock award grants by amortizing the fair value of the restricted stock award grants, which is the grant date market price, over the applicable vesting period.

Employee stock-based compensation for the years ended December 31, 2009, 2008 and 2007, was as follows:

| | | Year Ended December 31, | | | | | |
|---|---------|-------------------------|--------------|-------------|--|--|--|
| | 2009 | | 2008 | 2007 | | | |
| | (In | thousand | s except per | share data) | | | |
| Research and development | \$ 3, | 574 | 3,166 | \$ 2,897 | | | |
| Selling, general and administrative | 17,: | 506 | 15,630 | 11,230 | | | |
| Total share-based compensation expense | \$ 21,0 | 080 | 18,796 | \$ 14,127 | | | |
| Impact on basic net income (loss) per share | \$ 0 | .36 | 0.34 | \$ (0.28) | | | |
| Impact on diluted net income (loss) per share | \$ 0 | .35 | 0.33 | \$ (0.28) | | | |

All stock option awards to non-employees are accounted for at the fair value of the consideration received or the fair value of the equity instrument issued, as calculated using the Black-Scholes model. The option arrangements are subject to periodic remeasurement over their vesting terms. The Company recorded compensation expense related to option grants to non-employees of \$1.5 million, \$1.7 million and \$1.5 million for the years ended December 31, 2009, 2008 and 2007, respectively.

As of December 31, 2009, the total unrecorded stock-based compensation expense for unvested stock options shares, net of expected forfeitures, was \$38.4 million, which is expected to be amortized over a weighted-average period of 2.6 years. As of December 31, 2009, the total unrecorded stock-based compensation expense for unvested stock bonus awards, net of expected forfeitures, was \$6.6 million, which is expected to be amortized over a weighted-average period of 1.6 years. Cash received during the year ended December 31, 2009, for stock options exercised under all stock-based compensation arrangements was \$12.2 million.

For the years ended December 31, 2009, 2008 and 2007, the total fair value of stock bonus awards vested was \$3.6 million, \$1.8 million and \$0.3 million, respectively, based on weighted average grant date per share fair values of \$28.49, \$24.89 and \$21.04 for the years ended December 31, 2009, 2008 and 2007, respectively.

Valuation Assumptions

As of December 31, 2009, 2008 and 2007, the fair value of stock-based awards for employee stock option awards, stock bonus awards and employee stock purchases made under the ESPP was estimated using the Black-Scholes option pricing model. The following weighted average assumptions were used:

| | Year Ended December 31, | | | |
|---------------------------------------|-------------------------|-----------|-----------|--|
| | 2009 | 2008 | 2007 | |
| Stock Option Plans: | | | | |
| Risk-free interest rate | 1.95% | 2.86% | 4.66% | |
| Expected life | 4.3 years | 4.4 years | 4.3 years | |
| Expected volatility | 64% | 64% | 64% | |
| Expected dividends | None | None | None | |
| Weighted average option fair value | \$15.15 | \$17.32 | \$15.41 | |
| Stock bonus awards: | | | | |
| Expected life | 3 years | 3 years | 3 years | |
| Expected dividends | None | None | None | |
| Weighted average fair value per share | \$29.05 | \$30.80 | \$24.84 | |
| ESPP: | | | | |
| Risk-free interest rate | 0.29% | 2.69% | 5.11% | |
| Expected life | 6 months | 6 months | 6 months | |
| Expected volatility | 60% | 59% | 57% | |
| Expected dividends | None | None | None | |
| Weighted average fair value per share | \$9.16 | \$13.56 | \$3.78 | |

The Black-Scholes fair value model requires the use of highly subjective and complex assumptions, including the option's expected life and the price volatility of the underlying stock. Beginning January 1, 2007, the expected stock price volatility assumption was determined using a combination of historical and implied volatility for the Company's stock. The Company has determined that the combined method of determining volatility is more reflective of market conditions and a better indicator of expected volatility than historical volatility. The Company considers several factors in estimating the expected life of its options granted, including the expected lives used by a peer group of companies and the historical option exercise behavior of its employees, which it believes are representative of future behavior.

Stock-Based Payment Award Activity

The following table summarizes stock option and award activity under all option plans for the years ended December 31,2009,2008 and 2007:

| | Shares Number of Available for Shares Grant Outstanding | | 1 | Veighted Average ercise Price |
|------------------------------|---|--------------|----|-------------------------------------|
| Employee stock options: | | | | |
| Balance at December 31, 2006 | 1,734,778 | 5,334,477 | \$ | 22.05 |
| Shares authorized | 1,600,000 | - | | - |
| Granted | (1,167,701) | 1,167,701 | \$ | 28.55 |
| Exercised | - | (1,477,661) | \$ | 14.83 |
| Expired | 156,458 | (156,458) | \$ | 25.88 |
| Forfeited | 430,153 | (430,153) | \$ | 33.47 |
| Balance at December 31, 2007 | 2,753,688 | 4,437,906 | \$ | 25.39 |
| Shares authorized | 3,100,000 | - | | - |
| Granted | (1,624,036) | 1,624,036 | \$ | 32.81 |
| Exercised | <u>-</u> | (1,145,281) | \$ | 21.90 |
| Expired | 13,642 | (13,642) | \$ | 35.71 |
| Forfeited | 336,345 | (336,345) | \$ | 26.88 |
| Balance at December 31, 2008 | 4,579,639 | 4,566,674 | \$ | 28.76 |
| Shares authorized | 2,000,000 | = | | - |
| Granted | (1,476,972) | 1,476,972 | \$ | 29.47 |
| Exercised | <u>-</u> | (552,607) | \$ | 22.02 |
| Expired | 181,043 | (181,043) | \$ | 37.92 |
| Forfeited | 241,886 | (241,886) | \$ | 26.50 |
| Balance at December 31, 2009 | 5,525,596 | 5,068,110 | \$ | 29.48 |

| | Shares | Weighted Average Grant Date Fair Value | | |
|------------------------------|-----------|--|-------|--|
| Stock bonus awards: | | | | |
| Balance at December 31, 2006 | 33,333 | \$ | 21.04 | |
| Granted | 166,747 | \$ | 24.84 | |
| Vested | (13,333) | \$ | 21.04 | |
| Cancelled | (6,724) | \$ | 24.84 | |
| Balance at December 31, 2007 | 180,023 | \$ | 24.42 | |
| Granted | 223,015 | \$ | 30.72 | |
| Vested | (72,551) | \$ | 24.89 | |
| Cancelled | (34,645) | \$ | 26.51 | |
| Balance at December 31, 2008 | 295,842 | \$ | 28.81 | |
| Granted | 233,934 | \$ | 28.92 | |
| Vested | (128,014) | \$ | 28.49 | |
| Cancelled | (33,121) | \$ | 27.39 | |
| Balance at December 31, 2009 | 368,641 | \$ | 29.12 | |

The options outstanding and exercisable for stock-based payment awards as of December 31, 2009 were in the following exercise price ranges:

| Options Outstanding | | | | | Options Exercisable | | |
|---|-------------|------------|----|----------------|---------------------|---------------------------------|-------|
| Weighted Average Contractual Life Number Remaining Weighted Average | | | | | Number | Weighted Average Exercise | |
| Range of Exercise Prices | Outstanding | (In years) | _ | Exercise Price | Exercisable | | Price |
| \$4.20 - \$25.23 | 1,050,712 | 6.7 | \$ | 20.30 | 707,441 | \$ | 19.76 |
| \$25.25 - \$28.61 | 1,153,798 | 8.5 | \$ | 27.92 | 323,800 | \$ | 27.21 |
| \$28.62 - \$29.03 | 1,296,145 | 7.6 | \$ | 28.88 | 732,543 | \$ | 28.81 |
| \$29.04 - \$38.08 | 1,063,743 | 7.5 | \$ | 33.51 | 456,277 | \$ | 33.92 |
| \$38.36 - \$56.21 | 503,712 | 7.4 | \$ | 45.25 | 305,256 | \$ | 44.84 |
| Total | 5,068,110 | 7.6 | \$ | 29.48 | 2,525,317 | \$ | 28.93 |
| | | | | | | | |

As of December 31, 2009, weighted average contractual life remaining for exercisable shares is 6.5 years. The total number of in-the-money options exercisable as of December 31, 2009 was 2,525,317 shares. The aggregate intrinsic values of options exercised were \$6.1 million and \$18.9 million for the years ended December 31, 2009 and 2008, respectively. The aggregate intrinsic values of in-the-money outstanding and exercisable options were \$11.7 million and \$7.9 million, respectively, as of December 31, 2009. The aggregate intrinsic value of options represents the total pre-tax intrinsic value, based on the Company's closing stock price of \$29.34 at December 31, 2009, which would have been received by option holders had all option holders exercised their options that were in-the-money as of that date.

As of December 31, 2008, 1,956,714 outstanding options were exercisable, at a weighted average price of \$28.20. As of December 31, 2007, 1,883,043 outstanding options were exercisable, at a weighted average price of \$25.96.

Note 16. Comprehensive Income (Loss)

Comprehensive income (loss) is comprised of net income (loss) and other comprehensive income (loss). Other comprehensive income (loss) is comprised of unrealized holding gains and losses on the Company's available-for-sale securities that are excluded from net income (loss) and reported separately in stockholders' equity. Comprehensive income (loss) and its components are as follows:

| | Year Ended December 31, | | | | | | |
|--|-------------------------|--------------------------|----|---------|------|----------|--|
| | _ | 2009 2008 (In thousands) | | | 2007 | | |
| Net income (loss) | \$ | 16,161 | \$ | 1,948 | \$ | (34,167) | |
| Other comprehensive income (loss): | | | | | | | |
| Change in unrealized gain (loss) on available-for-sale | | | | | | | |
| securities | | 2,358 | | (4,676) | | 533 | |
| Comprehensive income (loss) | \$ | 18,519 | \$ | (2,728) | \$ | (33,634) | |

The activities in other comprehensive income (loss) are as follows:

| | Year Ended December 31, | | | |
|--|-------------------------|----------------|--------|--|
| | 2009 | 2008 | 2007 | |
| | | (In thousands) | | |
| Increase (decrease) in unrealized gain (loss) on available-for-sale | | | | |
| securities | \$ 2,390 | \$ (5,159) | \$ 533 | |
| Reclassification adjustment for net gains (losses) on available-for-sale | | | | |
| securities included in net income | (32) | 483 | | |
| Change in unrealized gain (loss) on available-for-sale securities | \$ 2,358 | \$ (4,676) | \$ 533 | |

Note 17. Income Taxes

For the years ended December 31, 2009 and 2008, the Company recorded a provision for income taxes of \$1.2 million and \$0.3 million, respectively, related to income from continuing operations. The components of the provision for income tax expense are as follows:

| | Year Ended December 31, | | | |
|----------------------------------|-------------------------|-------|------------|------|
| | | 2009 | 2008 | 2007 |
| | | (In | thousands) | |
| Current: | | | | |
| Federal | \$ | 624 | \$ 226 | \$ - |
| State | | 609 | 121 | |
| Total current | | 1,233 | 347 | |
| Deferred: | | | | |
| Federal | | - | - | - |
| State | | | | |
| Total deferred | | _ | | |
| Total provision for income taxes | \$ | 1,233 | \$ 347 | \$ - |

The Company's federal tax expense in 2009 and 2008 is principally related to U.S. alternative minimum tax based on the Company's ability to fully offset current federal taxable income by its federal net operating loss carryforwards. The 2008 and 2009 state tax liability is greater than might otherwise be expected due to the State of California suspending the utilization of California net operating losses for those years. There is no provision (benefit) for federal or state income taxes for the year ended December 31, 2007 because the Company incurred operating losses since inception through fiscal year 2007 and has established a valuation allowance equal to the net deferred tax assets.

Reconciliation between the Company's effective tax rate and the U.S. statutory tax rate for the years ended December 31, 2009, 2008 and 2007 is as follows:

| | Year Ended December 31, | | | | |
|--|-------------------------|--------|-------------|--|--|
| | 2009 | 2008 | 2007 | | |
| Federal income tax at statutory rate | 35% | 34% | (34)% | | |
| State income tax, net of federal benefit | 2% | 3% | 0% | | |
| Federal minimum tax | 4% | 10% | 0% | | |
| Stock compensation expense | 11% | 55% | 3% | | |
| Research credits expense add-back | 5% | 51% | 12% | | |
| Non-deductible meals and entertainment expense | 2% | 17% | 1% | | |
| Other non-deductible expenses | 1% | 6% | 0% | | |
| Capitalized acquisition costs | 11% | 0% | 0% | | |
| Contingent consideration | 3% | 0% | 0% | | |
| Change in valuation allowance | <u>(67</u>)% | (161)% | <u>18</u> % | | |
| Income tax expense | 7% | 15% | 0% | | |

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's deferred tax assets and liabilities as of December 31, 2009 and 2008 are as follows:

| | December 31, | | | |
|---|--------------|-----------|--------|-----------|
| | | 2009 | | 2008 |
| | | (In tho | usands | s) |
| Deferred tax assets: | | | | |
| Net operating loss carryforwards | \$ | 182,228 | \$ | 144,267 |
| Tax credit carryforwards | | 52,431 | | 42,388 |
| Capitalized research and development | | 160 | | 767 |
| Deferred revenue | | - | | 3,841 |
| Accrued expenses | | 5,238 | | 825 |
| Stock options | | 9,753 | | 7,763 |
| Property and equipment | | 1,192 | | 406 |
| Intangible assets | | 11,964 | | 10,060 |
| Other long-term assets | | 2,991 | | 2,826 |
| Contingent consideration | | 11,518 | | - |
| Capitalized costs | _ | 11,870 | _ | _ |
| Total deferred tax assets | | 289,345 | | 213,143 |
| Valuation allowance | | (258,439) | | (213,143) |
| Total deferred tax assets after valuation allowance | | 30,906 | | - |
| Deferred tax liabilities: | | | | |
| Discount on debt offering | | (30,906) | | - |
| Intangible assets — in-process research and development | | (157,090) | | |
| Total deferred tax liabilities | | (187,996) | | |
| Net deferred tax assets (liabilities) | \$ | (157,090) | \$ | |

As part of accounting for the acquisition of Proteolix, the Company recorded goodwill and intangible assets. Amortization expenses associated with acquired intangible assets are generally not tax deductible. Intangible assets acquired for use in a particular research and development project are considered indefinite-lived intangible assets until the completion or abandonment of the associated research and development efforts. Deferred taxes will continue to be recognized for the difference between the book and tax bases of indefinite-lived intangible assets as well as amortizable intangible assets. As a result, a deferred tax liability was established for the IPR&D of \$157.1 million as a part of the purchase accounting.

Realization of deferred tax assets is dependent upon future earnings, if any, the timing and the amount of which are uncertain. Accordingly, the net deferred tax assets, not including the deferred tax liability related to IPR&D, have been fully offset by a valuation allowance. The valuation allowance increased by \$45.3 million in 2009, decreased by \$6.8 million in 2008 and increased by \$12.8 million in 2007. The Company continues to maintain a full valuation allowance against its net operating loss carryforwards and other deferred tax assets despite achieving full-year profitability in 2009 and 2008, since, up until 2008, the Company has had a history of annual losses since inception. On a quarterly basis, the Company reassesses its valuation allowance for deferred income taxes. The Company will consider reducing the valuation allowance when it becomes more likely than not the benefit of those assets will be realized.

At December 31, 2009, the Company has net operating loss carryforwards for federal and state income tax purposes of approximately \$487.8 million and \$428.1 million, respectively, including federal and state net operating loss carryforwards of approximately \$121.4 million, as a result of the acquisition of Proteolix, Inc. These net operating losses can be utilized to reduce future taxable income, if any. Approximately \$28.8 million of the federal and \$27.1 million of the state valuation allowance for deferred tax assets related to net operating loss carryforwards represents the stock option deduction arising from activity under the Company's stock option plan, the benefit of which will increase additional paid in capital when realized. The federal net operating loss carryforwards expire beginning in 2018 through 2028, and the state net operating loss carryforwards begin to expire in 2014 through 2029 and may be subject to certain limitations. As of December 31, 2009, the Company has research and development credit and orphan drug credit carryforwards of approximately \$44.2 million for federal income tax purposes, including approximately \$2.8 million as a result of the Proteolix acquisition, that expire beginning in 2010 through 2029, and \$7.1 million for California income tax purposes, including approximately \$2.9 million as a result of the Proteolix acquisition, which do not expire.

Utilization of the net operating loss and tax credit carryforwards may be subject to substantial annual limitations due to ownership change limitations provided by the Internal Revenue Code of 1986, as amended, and similar state provisions. The annual limitations may result in the expiration of net operating loss and tax credit carryforwards before utilization.

The Company adopted authoritative guidance under ASC 740 on January 1, 2007, which clarifies the accounting for uncertainty in tax positions recognized in the financial statements. As of December 31, 2009, 2008 and 2007, the Company has no unrecognized income tax benefits. The Company is in process of completing an analysis of its tax credit carryforwards. Any uncertain tax positions identified in the course of this analysis will not impact the consolidated financial statements due to the full valuation allowance.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

| | Year Ended December 3 | | | 1, | |
|--|-----------------------|-----|-------------|------|-----|
| | 2009 | | <u>2008</u> | | 007 |
| | | (1) | n thousai | nas) | |
| Balance at January 1 | \$ | - | \$ - | \$ | - |
| Additions based on tax positions related to the current year | | - | - | | - |
| Additions/Reductions for tax positions of prior years | | - | - | | - |
| Reductions for tax positions of prior years | | - | - | | - |
| Settlement | | | | | |
| Balance at December 31 | \$ | _ | \$ - | \$ | _ |

At December 31, 2009, all unrecognized tax benefits are subject to full valuation allowance and, if recognized, will not affect the annual effective tax rate.

The Company's policy for classifying interest and penalties associated with unrecognized income tax benefits is to include such items as tax expense. No interest or penalties have been recorded during the years ended December 31, 2009, 2008 and 2007.

The tax years from 1993 and forward remain open to examination by federal and California authorities due to net operating loss and credit carryforwards. The Company is currently not under examination by the Internal Revenue Service or any other taxing authorities.

Note 18. Guarantees, Indemnifications and Contingencies

Guarantees and Indemnifications

The Company has entered into indemnity agreements with certain of its officers and directors, which provide for indemnification to the fullest extent authorized and permitted by Delaware law and the Company's Bylaws. The agreements also provide that the Company will indemnify, subject to certain limitations, the officer or director for expenses, damages, judgments, fines and settlements he or she may be required to pay in actions or proceedings to which he or she is or may be a party to because such person is or was a director, officer or other agent of the Company. The term of the indemnification is for so long as the officer or director is subject to any possible claim, or threatened, pending or completed action or proceeding, by reason of the fact that such officer or director was serving the Company as a director, officer or other agent. The rights conferred on the officer or director shall continue after such person has ceased to be an officer or director as provided in the indemnity agreement. The maximum amount of potential future indemnification is unlimited; however, the Company has a director and officer insurance policy that limits its exposure and may enable it to recover a portion of any future amounts paid under the indemnity agreements. The Company has not recorded any amounts as liabilities as of December 31, 2009 as the value of the indemnification obligations, if any, are not estimable.

Contingencies

From time to time, the Company may become involved in claims and other legal matters arising in the ordinary course of business. Management is not currently aware of any matters that could have a material adverse affect on the financial position, results of operations or cash flows of the Company.

Note 19. Quarterly Financial Data (Unaudited)

The following table presents unaudited quarterly financial data of the Company. The Company's quarterly results of operations for these periods are not necessarily indicative of future results of operations.

| | 2009 Quarter Ended | | | | | | | |
|--------------------------------------|--------------------|------------|-------------------------|----------|-----------------|----------|----|----------|
| | De | ecember 31 | September 30 | | June 30 | | N | larch 31 |
| | | | (In thousands, except p | | per share data) | | | |
| Revenue: | | | | | | | | |
| Revenue from collaboration agreement | \$ | 67,317 | \$ | 69,137 | \$ | 60,219 | \$ | 53,717 |
| Contract revenue | | 1,000 | | <u>-</u> | | <u> </u> | | |
| Total revenue | | 68,317 | | 69,137 | | 60,219 | | 53,717 |
| Operating expenses: | | | | | | | | |
| Research and development expenses | | 36,028 | | 35,635 | | 28,022 | | 28,820 |
| Selling, general and administrative | | | | | | | | |
| expenses | | 32,232 | | 23,440 | | 23,507 | | 21,953 |
| Contingent consideration | _ | 1,528 | | <u>-</u> | _ | _ | | |
| Income (loss) from operations | | (1,471) | | 10,062 | | 8,690 | | 2,944 |
| Investment income, net | | 920 | | 1,015 | | 972 | | 1,121 |
| Interest expense | | (4,603) | | (2,255) | | - | | - |
| Provision for income taxes | | (355) | | (589) | | (288) | | _ |
| Net income (loss) | \$ | (5,509) | \$ | 8,233 | \$ | 9,374 | \$ | 4,065 |
| Basic net income (loss) per share | \$ | (0.09) | \$ | 0.14 | \$ | 0.16 | \$ | 0.07 |
| Diluted net income (loss) per share | \$ | (0.09) | \$ | 0.14 | \$ | 0.16 | \$ | 0.07 |

| | 2008 Quarter Ended | | | | | | | |
|--------------------------------------|--------------------|----------|--------------|----------------|---------|-----------|----------|--------|
| | December 31 | | September 30 | | June 30 | | March 31 | |
| | | | (In tho | usands, except | per sh | are data) | | |
| Revenue: | | | | | | | | |
| Revenue from collaboration | | | | | | | | |
| agreement | \$ | 49,650 | \$ | 50,766 | \$ | 45,072 | \$ | 48,855 |
| Operating expenses: | | | | | | | | |
| Research and development expenses | | 59,905 | | 21,792 | | 23,498 | | 18,555 |
| Selling, general and administrative | | | | | | | | |
| expenses | | 22,008 | | 19,319 | | 19,822 | | 19,844 |
| Income (loss) from operations | | (32,263) | | 9,655 | | 1,752 | | 10,456 |
| Investment income, net | | 1,999 | | 2,763 | | 2,662 | | 5,271 |
| Provision (benefit) for income taxes | | (77) | | 175 | | (60) | | 309 |
| Net income (loss) | \$ | (30,187) | \$ | 12,243 | \$ | 4,474 | \$ | 15,418 |
| Basic net income (loss) per share | \$ | (0.53) | \$ | 0.22 | \$ | 0.08 | \$ | 0.28 |
| Diluted net income (loss) per share | \$ | (0.53) | \$ | 0.21 | \$ | 0.08 | \$ | 0.27 |
| | | 102 | | | | | | |

Exhibits

| Exhibit Number | Description of Document |
|-------------------|---|
| 2.1(1)* | Agreement and Plan of Merger dated as of October 10, 2009 among Onyx Pharmaceuticals, Inc., Proteolix, Inc., Profiterole Acquisition Corp., and Shareholder Representative Services LLC. |
| 3.1(2) | Restated Certificate of Incorporation of the Company. |
| 3.2(3) | Amended and Restated Bylaws of the Company. |
| 3.3(4) | Certificate of Amendment to Amended and Restated Certificate of Incorporation. |
| 3.4(5) | Certificate of Amendment to Amended and Restated Certificate of Incorporation. |
| 4.1 | Reference is made to Exhibits 3.1, 3.2, 3.3 and 3.4. |
| 4.2(2) | Specimen Stock Certificate. |
| 4.3(6) | Indenture dated as of August 12, 2009 between Onyx Pharmaceuticals, Inc. and Wells Fargo Bank, National Association. |
| 4.4(6) | First Supplemental Indenture dated as of August 12, 2009 between Onyx Pharmaceuticals, Inc. and Wells Fargo Bank, National Association. |
| 4.5(6) | Form of 4.00% Convertible Senior Note due 2016. |
| 10.1(i)(7)* | Collaboration Agreement between Bayer Corporation (formerly Miles, Inc.) and the Company dated April 22, 1994. |
| 10.1(ii)(7)* | Amendment to Collaboration Agreement between Bayer Corporation and the Company dated April 24, 1996. |
| 10.1(iii)(7)* | Amendment to Collaboration Agreement between Bayer Corporation and the Company dated February 1, 1999. |
| 10.2(i)(7)* | Amended and Restated Research, Development and Marketing Collaboration Agreement dated May 2, 1995 between the Company and Warner-Lambert Company. |
| 10.2(ii)(8)* | Research, Development and Marketing Collaboration Agreement dated July 31, 1997 between the Company and Warner-Lambert Company. |
| 10.2(iii)(8)* | Amendment to the Amended and Restated Research, Development and Marketing Collaboration Agreement, dated December 15, 1997, between the Company and Warner-Lambert Company. |
| 10.2(iv)(8)* | Second Amendment to the Amended and Restated Research, Development and Marketing Agreement between Warner-Lambert and the Company dated May 2, 1995. |
| 10.2(v)(8)* | Second Amendment to Research, Development and Marketing Collaboration Agreement between Warner-Lambert and the Company dated July 31, 1997. |
| 10.2(vi)(9)* | Amendment #3 to the Research, Development and Marketing Collaboration Agreement between the Company and Warner-Lambert dated August 6, 2001. |
| 10.2(vii)(10)* | Amendment #3 to the Amended and Restated Research, Development and Marketing Collaboration Agreement between the Company and Warner-Lambert dated August 6, 2001. |
| 10.3(11)* | Technology Transfer Agreement dated April 24, 1992 between Chiron Corporation and the Company, as amended in the Chiron Onyx HPV Addendum dated December 2, 1992, in the Amendment dated February 1, 1994, in the Letter Agreement dated May 20, 1994 and in the Letter Agreement dated March 29, 1996. |
| 10.4(2)+ | Letter Agreement between Dr. Gregory Giotta and the Company dated May 26, 1995. |
| 10.5(2)+ | 1996 Equity Incentive Plan. |
| 10.6(2)+ | 1996 Non-Employee Directors' Stock Option Plan. |
| 10.7(12)+ | 1996 Employee Stock Purchase Plan. |
| 10.8(2)+ | Form of Indemnity Agreement to be signed by executive officers and directors of the Company. |
| 10.9(13)+ | Form of Executive Change in Control Severance Benefits Agreement. |
| 10.10(i)(14)* | Collaboration Agreement between the Company and Warner-Lambert Company dated October 13, 1999. |
| 10.10(ii)(9)* | Amendment #1 to the Collaboration Agreement between the Company and Warner-Lambert dated August 6, 2001. |
| 10.10(ii)(15)* | Second Amendment to the Collaboration Agreement between the Company and Warner-Lambert Company dated September 16, 2002. |

| Exhibit Number | Description of Document |
|-------------------|--|
| 10.11(16) | Stock and Warrant Purchase Agreement between the Company and the investors dated May 6, 2002. |
| 10.12(i)(17) | Sublease between the Company and Siebel Systems dated August 5, 2004. |
| 10.12(ii)(18) | First Amendment to Sublease between the Company and Oracle USA Inc., dated November 3, 2006. |
| 10.13(i)(19)+ | 2005 Equity Incentive Plan. |
| 10.13(ii)(18)+ | Form of Stock Option Agreement pursuant to the 2005 Equity Incentive Plan. |
| 10.13(iii)(18)+ | Form of Stock Option Agreement pursuant to the 2005 Equity Incentive Plan and the Non-Discretionary Grant Program for Directors. |
| 10.13(iv)(20)+ | Form of Stock Bonus Award Grant Notice and Agreement between the Company and certain award recipients. |
| 10.14(7)* | United States Co-Promotion Agreement by and between the Company and Bayer Pharmaceuticals Corporation, dated March 6, 2006. |
| 10.15(21)+ | Letter Agreement between Laura A. Brege and the Company, dated May 19, 2006. |
| 10.16(20)+ | Letter Agreement between Gregory W. Schafer and the Company, dated July 7, 2006. |
| 10.17(22) | Common Stock Purchase Agreement between the Company and Azimuth Opportunity Ltd., dated September 29, 2006. |
| 10.18+ | Letter Agreement between Michael Kauffman, M.D., and the Company, dated October 10, 2009. |
| 10.19(23)+ | Bonuses for Fiscal Year 2008 and Base Salaries for Fiscal Year 2009 for Executive Officers. |
| 10.20(i)(24)+ | Employment Agreement between the Company and N. Anthony Coles, M.D., dated as of February 22, 2008. |
| 10.20(ii)(23) | Amendment to Executive Employment Agreement between the Company and N. Anthony Coles, M.D., effective as of March 12, 2009. |
| 10.21(24)+ | Executive Change in Control Severance Benefits Agreement between the Company and N. Anthony Coles, M.D., dated as of February 22, 2008. |
| 10.22** | License and Supply Agreement, dated October 12, 2005, by and between CyDex, Inc. and Proteolix, Inc., as amended. |
| 10.23 | Reserved. |
| 10.24(i)(25)+ | Separation and Consulting Agreement between the Company and Gregory W. Schafer, dated June 23, 2008. |
| 10.24(ii)(3)+ | Amendment to Separation and Consulting Agreement between the Company and Gregory W. Schafer, dated December 5, 2008. |
| 10.25(3)+ | Onyx Pharmaceuticals, Inc. Executive Severance Benefit Plan. |
| 10.26(26)+ | Letter Agreement between the Company and Matthew K. Fust, dated December 12, 2008. |
| 10.27(27)* | Development and License Agreement between the Company and BTG International Limited, dated as of November 6, 2008. |
| 10.28(i)(23)+ | Letter Agreement between the Company and Juergen Lasowksi, Ph.D., dated April 28, 2008. |
| 10.28(ii)(23)+ | Amendment to Letter Agreement between the Company and Juergen Lasowski, Ph.D., effective as of March 12, 2009. |
| 10.29(28)+ | Executive Employment Agreement between the Company and Suzanne M. Shema, effective as of August 31, 2009. |
| 21.1 | Subsidiaries of the Registrant. |
| 23.1 | Consent of Independent Registered Public Accounting Firm. |
| 24.1 | Power of Attorney. Reference is made to the signature page. |
| 31.1 | Certification of Principal Executive Officer required by Rule 13a-14(a) or Rule 15d-14(a). |
| 31.2 | Certification of Principal Financial Officer required by Rule 13a-14(a) or Rule 15d-14(a). |
| 32.1 | Certifications required by Rule 13a-14(b) or Rule 15d-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. 1350). |

^{*} Confidential treatment has been received for portions of this document.

104

^{**} Confidential treatment has been sought for portions of this document.

- + Indicates management contract or compensatory plan or arrangement.
- (1) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on October 13, 2009.
- (2) Filed as an exhibit to Onyx's Registration Statement on Form SB-2 (No. 333-3176-LA).
- (3) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on December 5, 2008.
- (4) Filed as an exhibit to Onyx's Quarterly Report on Form 10-Q for the quarter ended June 30, 2000.
- (5) Filed as an exhibit to Onyx's Registration Statement on Form S-3 (No. 333-134565) filed on May 30, 2006.
- (6) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on August 12, 2009.
- (7) Filed as an exhibit to Onyx's Quarterly Report on Form 10-Q for the quarter ended March 31, 2006. The redactions to this agreement have been amended since its original filing in accordance with a request for extension of confidential treatment filed separately by the Company with the Securities and Exchange Commission.
- (8) Filed as an exhibit to Onyx's Annual Report on Form 10-K for the year ended December 31, 2002. The redactions to this agreement have been amended since its original filing in accordance with a request for extension of confidential treatment filed separately by the Company with the Securities and Exchange Commission.
- (9) Filed as an exhibit to Onyx's Quarterly Report on Form 10-Q for the quarter ended September 30, 2001
- (10) Filed as an exhibit to Onyx's Quarterly Report on Form 10-Q for the quarter ended September 30, 2006. The redactions to this agreement have been amended since its original filing in accordance with a request for extension of confidential treatment filed separately by the Company with the Securities and Exchange Commission.
- (11) Filed as an exhibit to Onyx's Annual Report on Form 10-K for the year ended December 31, 2001. The redactions to this agreement have been amended since its original filing in accordance with a request for extension of confidential treatment filed separately by the Company with the Securities and Exchange Commission.
- (12) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on May 25, 2007.
- (13) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on June 10, 2008.
- (14) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on March 1, 2000.
- (15) Filed as an exhibit to Onyx's Quarterly Report on Form 10-Q for the quarter ended September 30, 2002.
- (16) Filed as an exhibit to Onyx's Registration Statement on Form S-3 filed on June 5, 2002 (No. 333-89850).
- (17) Filed as an exhibit to Onyx's Quarterly Report on Form 10-Q for the quarter ended September 30, 2004.
- (18) Filed as an exhibit to Onyx's Annual Report on Form 10-K for the year ended December 31, 2006.
- (19) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on May 27, 2009
- (20) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on July 12, 2006.
- (21) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on June 12, 2006.
- (22) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on September 29, 2006.
- (23) Filed as an exhibit to Onyx's Quarterly Report on Form 10-Q for the quarter ended March 31, 2009.
- (24) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on February 26, 2008.
- (25) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on June 23, 2008.
- (26) Filed as an exhibit to Onyx's Current Report on Form 8-K filed on December 23, 2008.
- (27) Filed as an exhibit to Onyx's Annual Report on Form 10-K for the year ended December 31, 2008.
- (28) Filed as an exhibit to Onyx's Quarterly Report on Form 10-Q for the quarter ended September 30, 2009.

October 10, 2009

Michael Kauffman 262 Arnold Road Newton, MA 02459

Dear Michael,

As you know, Onyx Pharmaceuticals and Proteolix, Inc. have entered into an Agreement and Plan of Merger (the "Merger Agreement"). Onyx would like to offer you continued employment with Onyx contingent upon the successful closing of this Merger pursuant to the terms set forth in this offer letter agreement. If the Merger does not close for any reason, the offer set forth herein shall be null and void, and this offer letter agreement shall have no force or effect. Capitalized terms not otherwise defined in this offer letter shall have the same meanings set forth in the Merger Agreement.

Upon the successful closing of the Merger, you will become an employee of Onyx to assist in the integration of the two companies (the "Transition Period"). The Transition Period, and your employment with Onyx, will end the day following the date ("Separation Date") of submission to the FDA of the NDA based on Study 003-A1 (the "CFZ NDA"). The Separation Date may be extended by mutual agreement. As a full-time Transition Executive commencing on the Closing Date, we expect that you will aid Onyx in the transition ownership of Proteolix.

In consideration for your services under this offer letter agreement, and your compliance with the Employee Confidential Information and Inventions Assignment Agreement between Onyx and you (the "Inventions Assignment Agreement," and the Noncompetition and Nonsolicitation Agreement between Onyx and you (the "Noncompetition Agreement"), we are pleased to offer you the following:

<u>Salary:</u> Subject to necessary approvals by the Board of Directors of Onyx, your semi-monthly salary will be \$14,791.67 totaling \$355,000 per year, less required deductions and withholdings.

<u>Stock:</u> Subject to necessary approvals by the Board of Directors of Onyx, on the Closing Date of the Merger you will receive a performance based grant of 6,000 restricted shares. The shares subject to the award shall vest upon submission of the CFZ NDA, provided that your continuous service has not terminated prior to such vesting date.

Bonus: You will be eligible, at the end of each year, commencing with 2010, to receive an annual bonus amount of up to 35% of your base salary if Onyx achieves its corporate objectives and you achieve the performance objectives set for you. If you are terminated with "Cause" or you leave other than as a result of a "Constructive Termination," as these terms are defined below, at any time during a year, you are not eligible for any prorated amount of your target bonus for that year. Bonus payments will be subject to required deductions and withholdings. Onyx shall have the sole discretion to determine whether you have earned any bonus set forth in this paragraph and, if so, the amount of any such bonus.

Michael Kauffman Page 2

Benefits: During the Transition Period, you will be eligible to participate in Onyx's medical, dental, vision, EAP, life insurance, short-term and long-term disability insurance programs pursuant to the terms of these plans and our vacation, sick and holiday programs in accordance with Onyx policy beginning on January 1, 2010. You may also sign up to participate in our 401(k) Retirement Savings Plan and our Employee Stock Purchase Plan. Your current benefits with Proteolix will remain in place through December 31, 2009. In addition, you may choose to have additional Voluntary Term Life insurance coverage for you and your eligible dependents.

Expenses: During your employment, Onyx will reimburse you for your travel, food, and lodging expenses related to your commute to and from and your stay in the Bay Area in an amount not to exceed \$12,000 per month (unless otherwise approved by the CEO or designee) as well as all your reasonable out-of-pocket expenses, such as, food, lodging and travel expenses for all other business travel away from your office in Massachusetts. In general, you will be expected to continue to spend at least 2 days every two weeks in our California offices. In recognition of the extensive travel you are undertaking, for any airline trips of greater than 90 minutes in duration, reasonable attempts to provide business-class seating will be made.

<u>Termination</u>: Onyx may decide to end your employment prior to the Separation Date. If you remain employed by Onyx until the end of the Transition Period or if during the Transition Period your employment is terminated by Onyx without "Cause," as defined below, or in the event of a "Constructive Termination", you will be entitled to receive the following severance benefits (a) severance pay in the form of continuation of your base salary for the four (4) months after the date of such termination (less required deductions and withholdings); and (b) a lump sum amount equal to your annual target bonus for the year in which the termination is effective, pro-rated for the number of days that you were employed during such year, payable on the sixtieth (60) day after termination. The severance benefits described in this paragraph are conditioned upon (i) your compliance with your obligations under the Inventions Assignment Agreement and Noncompetition Agreement, and (ii) your signing and delivering to Onyx within twenty (20) days following termination an effective general release of claims in favor of Onyx and its subsidiaries in a form acceptable to Onyx.

"Cause" means (i) your gross negligence or willful misconduct in the performance of your duties to Onyx, where such gross negligence or willful misconduct has resulted or is likely to result in material damage to Onyx or its subsidiaries, (ii) your willful and habitual neglect of your duties of employment, (iii) your commission of any act of fraud with respect to Onyx, (iv) your conviction of, or plea of, *nolo contendere* to felony criminal conduct or any crime involving moral turpitude, or (v) your violation of your Employee Confidential Information and Inventions Assignment Agreement or the Noncompetition Agreement.

"Constructive Termination" means you voluntarily terminate employment and incur a "separation from service" with Onyx within the meaning of Treasure Regulation Section 1.409A-1(h) (without regard to any permissible alternative definition thereunder) after one of the following is undertaken without your express written consent:

- (i) A material diminution in your base salary, unless such reduction is made pursuant to an across-the-board reduction of the base salaries of all executive officers of Onyx of not more than ten percent (10%); or
- (ii) A change in your business location of more than thirty-five (35) miles from Onyx's principal executive office as of the date of this letter agreement; or,
- (iii) Any material breach by Onyx of any provision of this offer letter agreement.

Michael Kauffman Page 3

Notwithstanding the foregoing, in order to qualify as "Constructive Termination," you must submit to Onyx a written notice, within ninety (90) days after the initial occurrence of any of the foregoing actions or events, describing the applicable actions or events, and provide Onyx with at least thirty (30) days from its receipt of your written notice in which to cure such actions or events prior to termination of your employment, and provided that your employment must terminate no later than twelve (12) months after the applicable actions or events described in (i) and (ii) above.

If your employment is terminated by Onyx for Cause or if you resign your employment other than a Constructive Termination, you will not be entitled to any compensation or benefits, other than the salary earned through the date of your termination.

In addition, this offer is contingent upon your signing our Employee Confidential Information and Inventions Assignment Agreement, Noncompetition Agreement, and providing legally required evidence of your right to work in the United States, as well as successful completion of your background check.

On the Closing Date, this offer and your acceptance will constitute the entire agreement between Onyx and you respecting your employment with Onyx and will supersede all prior negotiations and agreements pertaining thereto, whether written or oral. No employee or representative of Onyx, other than its CEO (or designee), has the authority to make any express or implied agreement contrary to the foregoing. Once effective, this offer letter agreement only may be modified in a writing signed by the parties hereto.

We understand that you are currently a scientific advisor to Bessember Venture Partners LLC, a member of the Board of Directors of CombinatoRx Inc. (NASDAQ: CRXX), a member of the Board of Directors of Karyopharm Therapeutics, Inc. (a seed stage private company focused on nuclear pore inhibitors), and an advisor to Cambria Pharmaceuticals, Inc. (a preclinical stage neurological diseases company focused on ALS). You represent that none of these arrangements represents a competitive issue for the Company, and that they will not interfere with your responsibilities at Onyx. The Company acknowledges and agrees that you may continue with such activities during your employment with the Company.

Proteolix will provide you with all the benefits due under Sections 2(a), (b) and (c) of the Amended and Restated Change in Control Agreement, dated July 22, 2009, by and between you and Proteolix (the "Amended Change in Control Agreement"), at the time or times set forth therein, as if your employment had been terminated without "cause" (as defined in such Amended Change in Control Agreement) on the Closing Date, except that the benefits under Section 2(c) shall be provided following the Separation Date; and such payment will be in full satisfaction of all prior agreements, whether oral or written, pertaining to your employment with Proteolix, including, without limitation, the letter titled "Amended and Restated Employment Terms," dated July 22, 2009, the letter titled "Employment Terms," dated April 9, 2009, the Change in Control Agreement, dated April 9, 2009, by and between you and Proteolix, and the Amended Change in Control Agreement, each of which shall be of no further force or effect. Nothing in this offer letter shall have the effect of negating negate any rights with respect to the acceleration of vesting of equity securities as set forth in the Merger Agreement.

This offer will be governed by, and construed in accordance with, the laws of the State of Massachusetts without giving effect to its principles of conflict of laws.

If this arrangement is acceptable to you, please indicate your acceptance of the terms of this employment offer by signing and dating one copy and returning it, along with the signed Inventions Assignment Agreement and signed Noncompetition Agreement to me.

/s/ Judy Batlin

Judy Batlin

VP, Organizational Learning, Development & Human Resources

I accept Onyx Pharmaceutical's offer of employment on the terms stated.

/s/ Michael Kauffman

Michael Kauffman

Page 4

December 28, 2009

Michael Kauffman 262 Arnold Road Newton, MA 02459

Dear Michael,

Onyx Pharmaceuticals, Inc. and Onyx Therapeutics, Inc. (formerly known as Proteolix, Inc.) (collectively, the "Company") wish to clarify certain terms set forth in the offer letter to you from Company dated October 10, 2009 (the "Offer Letter"). Specifically, the Company would like to clarify how certain expense reimbursement rights and severance payments are exempt from and/or compliant with the requirements of Section 409A of the Internal Revenue Code of 1986, as amended (the "Code") (Section 409A of the Code, together, with any state law of similar effect, "Section 409A"). If you would like to agree to such clarification, we request that you do so by signing this letter not later than December 31, 2009. This letter amends the Offer Letter only as expressly set forth herein. Nothing in this letter modifies the at will nature of your employment. Capitalized terms not defined herein have the meaning set forth in the Offer Letter.

Expenses: For the avoidance of doubt, to the extent that any reimbursements payable to you by the Company are subject to the provisions of Section 409A, any such reimbursements will be paid no later than December 31 of the year following the year in which the expense was incurred, the amount of expenses reimbursed in one year will not affect the amount eligible for reimbursement in any subsequent year, and the right to reimbursement will not be subject to liquidation or exchange for another benefit.

Termination: Onyx may decide to end your employment prior to the Separation Date. If you remain employed by the Company until the Separation Date, or if during the Transition Period your employment is terminated (i) by the Company without "Cause" (as defined below) and other than as a result of your death or disability or (ii) if you resign pursuant to a "Constructive Termination" (as defined below), then upon your termination of employment, and provided such termination constitutes a "separation from service" (as defined under Treasury Regulation Section 1.409A-1(h)), you will be entitled to receive the following severance benefits: (a) severance pay in the form of continuation of your base salary for the first four (4) months after the date of such termination (less required deductions and withholdings), and (b) additional severance in the form of a lump sum payment in an amount equal to your annual target bonus for the year in which the termination is effective, with such target amount pro-rated based on the number of days that you were employed during such year, payable on the 60th day following your separation from service (less required deductions and withholdings).

These severance benefits are conditioned upon (i) your compliance with your obligations under the Inventions Assignment Agreement and Noncompetition Agreement, and (ii) your signing and delivering to the Company an effective general release of claims in favor of the Company in a form acceptable to the Company not later than 60 days following your separation from service. Given the need for you to sign the release, notwithstanding the payment schedules set forth above, no payments of the cash severance will be made prior to the 60th day following your separation from service. On such 60th day, and provided you have satisfied the conditions to payment, the Company will pay to you a lump sum amount equal to the payments of cash severance that you would have received from the Company through such 60th day had the payments not been delayed pursuant to this paragraph to satisfy the requirements of Section 409A, with the balance of the cash severance paid thereafter in accordance with the original payment schedules set forth above.

As defined in the Offer Letter, "Cause" continues to mean (i) your gross negligence or willful misconduct in the performance of your duties to the Company, where such gross negligence or willful misconduct has resulted or is likely to result in material damage to the Company, (ii) your willful and habitual neglect of your duties of employment, (iii) your commission of any act of fraud with respect to the Company, (iv) your conviction of, or plea of, *nolo contendere* to felony criminal conduct or any crime involving moral turpitude, or (v) your violation of your Inventions Assignment Agreement or the Noncompetition Agreement.

As defined in the Offer Letter, "Constructive Termination" continues to mean that you voluntarily terminate your employment with the Company and incur a "separation from service" with the Company within the meaning of Treasury Regulation Section 1.409A-1(h) (without regard to any permissible alternative definition thereunder) after one of the following is undertaken without your express written consent:

- (i) A material diminution in your base salary, unless such reduction is made pursuant to an across-the-board reduction of the base salaries of all executive officers of the Company of not more than ten percent (10%); or
- (ii) A change in your business location that increases your one way commute by more than thirty five (35) miles from the length of your commute on the date of the Offer Letter; or
- (iii) Any material breach by the Company of any provision of the Offer Letter (as amended).

Notwithstanding the foregoing, in order to qualify as a "Constructive Termination," you must submit to the Company a written notice, within ninety (90) days after the initial occurrence of any of the foregoing actions or events, describing the applicable actions or events, and provide the Company with at least thirty (30) days from its receipt of your written notice in which to cure such actions or events prior to the termination of your employment, and provided that your employment must terminate no later than twelve (12) months after the applicable actions or events described above.

As set forth in your Offer Letter, if your employment is terminated by Onyx for Cause, by either party as a result of your death or disability, or if you resign your employment other than as a result of a Constructive Termination, you will not be entitled to any compensation or benefits, other than the salary earned through the date of your termination.

It is intended that each installment of the severance payments and benefits is a separate "payment" for purposes of Treasury Regulation Section 1.409A-2(b)(2)(i) and that these amounts

satisfy, to the greatest extent possible, the exemptions from the application of Section 409A provided under Treasury Regulations Section 1.409A-1(b)(4) and 1.409A-1(b)(9). However, if the Company (or, if applicable, the successor entity thereto) determines that the severance payments and benefits provided to you (the "Payments") constitute "deferred compensation" under Section 409A and you are, on the termination of your service, a "specified employee" of the Company or any successor entity thereto, then, solely to the extent necessary to avoid the incurrence of the adverse personal tax consequences under Section 409A, the timing of the Payments will be delayed as follows: on the earlier to occur of (i) the date that is six months and one day after your separation from service or (ii) the date of your death (such earlier date, the "Delayed Initial Payment Date"), the Company (or the successor entity thereto, as applicable) will (A) pay you a lump sum amount equal to the sum of the Payments that you would otherwise have received through the Delayed Initial Payment Date if the commencement of the payment of the Payments had not been so delayed pursuant to this paragraph and (B) commence paying the balance of the Payments in accordance with the applicable payment schedules set forth in this agreement.

Please indicate your acceptance of the terms of this amendment by signing and dating one copy and returning it to me by December 31, 2009.

/s/ Leonie McConville

Leonie McConville Sr. Director, Human Resources

<u>CIRCULAR 230 DISCLAIMER</u>. The following disclaimer is provided in accordance with the Internal Revenue Service's Circular 230 (21 CFR Part 10). Any advice contained in this letter is not intended or written to be used, and it cannot be used, by you for the purpose of avoiding any penalties that may be imposed on you. This advice was written to support the promotion or marketing of participation in the Company's severance benefit policies. You should seek advice based on your particular circumstances from an independent tax advisor.

Understood and Agreed.

| /s/ Michael Kauffman | December 30, 2009 |
|----------------------|-------------------|
| Signature | Date |

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Exhibit 10.22

LICENSE AND SUPPLY AGREEMENT

THIS LICENSE AND SUPPLY AGREEMENT (this "Agreement") is made this 12th day of October, 2005 (the "Effective Date"), by and between CYDEX, INC., a Delaware corporation with offices at 10513 W. 84 th Terrace, Lenexa, Kansas 66214, ("CyDex"), and PROTEOLIX, INC., a Delaware corporation with offices at 225 Gateway Boulevard, South San Francisco, California 94080 ("Proteolix").

RECITALS

WHEREAS, CyDex is engaged in the business of developing and commercializing novel drug delivery technologies designed to enhance the solubility and effectiveness of existing and development-stage drugs;

WHEREAS, CyDex is the exclusive worldwide licensee of CAPTISOL®, a patented drug formulation system designed to enhance the solubility and stability of drugs;

WHEREAS, Proteolix desires to obtain a license to use such patented drug formulation system in connection with its development and commercialization of a certain pharmaceutical compound and CyDex is willing to grant such license to Proteolix under the terms and conditions set forth herein; and

WHEREAS, CyDex desires to sell CAPTISOL® to Proteolix, and Proteolix desires to purchase CAPTISOL® from CyDex, in accordance with the terms and conditions contained herein.

NOW, THEREFORE, in consideration of the following mutual promises and other good and valuable consideration, the receipt and sufficiency of which is acknowledged, the parties, intending to be legally bound, agree as follows:

1. DEFINITIONS.

For the purposes of this Agreement, the terms hereunder shall have the meanings as defined below:

- 1.1 "Affiliate" means, with respect to any party, any entity controlling, controlled by, or under common control with such party, during and for such time as such control exists. For these purposes, "control" shall refer to the ownership, directly or indirectly, of at least fifty percent (50%) of the voting securities or other ownership interest of the relevant entity.
 - 1.2 "CAPTISOL" means CAPTISOL®, also known scientifically as sulfobutylether β(beta) cyclodextrin, sodium salt.

| [**] | = | Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with |
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| | | the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended. |
| | | • |

- 1.3 "CAPTISOL Data Package" means (a) all toxicology/safety and other relevant scientific safety data owned, licensed or developed by CyDex and its Affiliates; (b) all toxicology/safety and other relevant scientific data owned, licensed or developed by the licensees or sublicensees of CyDex or its Affiliates or other third parties (to the extent permitted in the applicable license or other agreements between CyDex and/or its Affiliates and such licensees, sublicensees or other third parties) on CAPTISOL alone (and not in conjunction with a product formulation); and (c) all CMC and manufacturing process data relating to the preparation of CAPTISOL, in each case to the extent necessary or useful for the formulation of the Product.
- **1.4** "CAPTISOL Improvement" means any technology or improvement specifically related to the physical properties of CAPTISOL, whether or not patentable, that is developed by Proteolix or its Affiliates or Sublicensees, solely or jointly with a third party.
 - 1.5 "Claim" has the meaning specified in Section 10.1.
- **1.6** "Clinical Grade CAPTISOL" means CAPTISOL which (a) has been manufactured under conditions of current good manufacturing practices for bulk excipients as set forth in U.S. Pharmacopoeia <1078> or any successor thereto, (b) is intended for use in humans, and (iii) is intended for clinical trials for the Product.
- 1.7 "Commercial Grade CAPTISOL" means CAPTISOL which (a) has been manufactured under conditions of current good manufacturing practices for bulk excipients as set forth in U.S. Pharmacopoeia <1078> or any successor thereto, (b) is intended for use in humans, and (iii) is intended for commercial sale of the Product.
- **1.8** "Commercial Launch Date" means, in any particular country, the first commercial sale of the Product by Proteolix, or an Affiliate or Sublicensee of Proteolix to a third party.
- **1.9** "Compound" means that certain pharmaceutical compound known as PR-171, owned by or licensed to Proteolix and developed and manufactured by or on behalf of Proteolix.
 - **1.10** "Confidential Information" has the meaning specified in Section 8.1.
 - 1.11 "Detailed Forecast" has the meaning specified in Section 3.2(b).
 - 1.12 "Disclosing Party" has the meaning specified in Section 8.1 hereof.
- 1.13 "DMF" means a Drug Master File for CAPTISOL, as currently filed, or as hereafter updated from time to time, by CyDex with the FDA.
 - 1.14 "FDA" means the United States Food and Drug Administration, or any successor thereto.
- **1.15** "Field" means the treatment of any and all diseases and conditions in humans, except: (a) for the treatment or prophylaxis of fungal infections; or (b) as a topical ocular treatment of dry eye.
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- **1.16** "IND" means an Investigational New Drug application, as defined in the United States Federal Food, Drug and Cosmetics Act and the regulations promulgated thereunder, or similar application filed with an equivalent regulatory body in another country.
 - 1.17 "Indemnitee" has the meaning specified in Section 10.3.
 - 1.18 "Indemnitor" has the meaning specified in Section 10.3.
 - 1.19 "Initial Detailed Forecast" has the meaning specified in Section 3.2(b).
- **1.20** "Licensed Patents" means all patents and patent applications in the Territory which cover CAPTISOL and which now or at any time during the Term are owned by or licensed to CyDex or any CyDex Affiliate with the right to sublicense, including any and all extensions, renewals, continuations, substitutions, continuations-in-part, divisions, patents-of-addition, reissues, reexaminations and/or supplementary protection certificates to any such patents. Set forth in *Exhibit A* attached hereto is a list of the Licensed Patents as of the Effective Date. Such Exhibit shall be updated by CyDex from time to time.
 - **1.21 "Product"** means the Compound combined with or formulated using CAPTISOL in a parenteral dosage form/formulation.
 - 1.22 "Losses" has the meaning set forth in Section 10.1.
- **1.23** "Marketing Approval" means final approval of an NDA by the FDA, or final approval of a comparable document filed with an equivalent health regulatory authority in any other country or in the European Union (using the centralized process or mutual recognition), including all required marketing, pricing or reimbursement approvals.
- **1.24** "NDA" means a New Drug Application, as defined in the United States Federal Food, Drug and Cosmetics Act and the regulations promulgated thereunder; or similar application filed with an equivalent regulatory body in another country.
- 1.25 "Net Sales" means gross amounts invoiced by Proteolix, its Affiliates and Sublicensees for sales of the Product in the Field, less the following: (a) normal and customary trade, quantity and/or cash discounts, allowances and rebates actually allowed or given; (b) returns and credits actually allowed for rejections, defects or recalls of Product, outdated or returned Product, or because of rebates or retroactive price reductions; (c) freight, postage, shipping insurance and other transportation expenses (if separately identified on the invoice); and (d) sales, value-added, excise or use taxes, tariffs, duties and customs fees and other taxes imposed with respect to specific sales. "Net Sales" shall not include amounts for any Product furnished to a third party for use in clinical trials and Product distributed as promotional and free goods. Furthermore, "Net Sales" shall not include amounts from sales or other dispositions of Product between Proteolix and any of its Affiliates or Sublicensees, unless such Affiliate or Sublicensee is an end-user of such Product.
 - **1.26** "Notice of Termination" has the meaning specified in Section 13.2.

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- **1.27** "**Phase 1 Trial**" means those clinical trials on sufficient numbers of normal volunteers and patients that are designed to establish that a drug is safe for its intended use, and to support its continued testing in Phase 2 Trials.
- **1.28** "Phase 2 Trial" means those trials in sufficient numbers of patients that are designed to establish the safety and biological activity of a drug for its intended use, and to define warnings, precautions and adverse reactions that are associated with a drug in the dosage range to be prescribed.
 - **1.29 "Pfizer"** has the meaning specified in **Section 8.5**.
 - 1.30 "Purchase Volume Limitations" has the meaning specified in Section 3.2(c).
 - **1.31** "Receiving Party" has the meaning specified in Section 8.1.
 - 1.32 "Ql" has the meaning specified in Section 3.2(c).
- **1.33** "Research Grade CAPTISOL" means CAPTISOL which has not been manufactured under required conditions of current good manufacturing practices and is not suitable for use in humans, but which meets the Specifications for Research Grade CAPTISOL.
- **1.34** "Specifications" means the specifications for CAPTISOL set forth in *Exhibit B* hereto, as such may be amended from time to time pursuant to Section 3.4.
 - **1.35** "Sublicensees" has the meaning specified in Section 2.3.
 - **1.36** "Term" has the meaning specified in Section 13.1.
 - 1.37 "Testing Methods" has the meaning specified in Section 3.5(a).
 - 1.38 "Third-Party Manufacturer" has the meaning specified in Section 3.6.
 - **1.39** "Territory" means the entire world.

2. GRANT OF RIGHTS.

- 2.1 License Grants from CyDex to Proteolix.
- (a) <u>Licensed Patents</u>. Subject to the terms and conditions of this Agreement, CyDex hereby grants to Proteolix an exclusive, nontransferable license during the Term under the Licensed Patents, solely to develop, make, have made, use, market, distribute, sell, offer for sale and import the Product in the Field in the Territory. Notwithstanding the foregoing, to the extent that any Licensed Patents are licensed to CyDex or its Affiliates by a third party on a non-exclusive basis, the license granted to Proteolix in the foregoing sentence shall be exclusive as to CyDex and non-exclusive as to any third party. Proteolix may not sublicense the Licensed Patents, except as expressly set forth in **Section 2.3** below. For purposes of clarification, CyDex grants no rights to Proteolix to manufacture, import, sell or offer to sell bulk CAPTISOL, except as otherwise provided in **Section 3.7(c)**.
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- (b) <u>CAPTISOL Data Package</u>. Subject to the terms and conditions of this Agreement, CyDex hereby grants to Proteolix a non-exclusive, nontransferable license during the Term under CyDex' right in and to the CAPTISOL Data Package, solely to develop, make, have made, use, market, distribute, sell, offer for sale and import the Product in the Field in the Territory. Proteolix may not sublicense its rights to the CAPTISOL Data Package, except as expressly set forth in **Section 2.3** below.
- **2.2 Grant of License from Proteolix to CyDex.** Proteolix hereby grants to CyDex a non-exclusive, transferable, perpetual, royalty-free license, with the right to grant sublicenses, under Proteolix', its Affiliates' and Sublicensees' rights in and to CAPTISOL Improvements to develop, make, have made, use, market, distribute, sell, offer for sale and import any CAPTISOL Improvement in the Territory. Proteolix shall provide prompt notice of any such CAPTISOL Improvement, and shall notify and consult with CyDex at least [**] days prior to the filing of any patent application with respect to such CAPTISOL Improvement.
- **2.3 Sublicensing.** Proteolix shall have the right to grant sublicenses to its Affiliates and licensees of the Product (collectively "**Sublicensees**") under the licenses granted to Proteolix pursuant to **Section 2.1**; *provided* that (a) each such Sublicensee has agreed to be bound by all applicable terms and obligations of the rights and licenses granted by CyDex to Proteolix under this Agreement (including, without limitation, Proteolix' confidentiality obligations), (b) the terms and conditions of each such sublicense is consistent with and no less restrictive than the terms and conditions of this Agreement, and (c) Proteolix provides to CyDex a copy of each such sublicense agreement with respect to the Product, *provided, however*, Proteolix may redact any proprietary or financial terms from any such copy. If necessary to engage a third party manufacturer for the Product, Proteolix shall be permitted under this Agreement to treat any such third party manufacturer as a Sublicensee, subject to the terms of this **Section 2.3**. In any event, Proteolix shall procure from any third party manufacturer of the Product, such third party's agreement that all bulk CAPTISOL supplied pursuant to this Agreement shall be used solely for the manufacture of the Product. Other than as specifically provided in and this **Section 2.3**, Proteolix shall not have the right to grant sublicenses to any third party under the licenses granted pursuant to **Section 2.1**.
- **2.4 Reservation of Rights.** This Agreement confers no right, license or interest by implication, estoppel, or otherwise under any patents, patent applications, know-how or other intellectual property rights of either party except as expressly set forth in this **Section 2** and elsewhere in this Agreement. Each party hereby expressly retains and reserves all rights and interests with respect to patents, patent applications, know-how or other intellectual property rights not expressly granted to the other party hereunder.

3. MANUFACTURE AND SUPPLY OF CAPTISOL.

3.1 Purchase of CAPTISOL. Proteolix agrees that Proteolix and its Affiliates and Sublicensees shall purchase CAPTISOL for use in Product exclusively from CyDex and that they shall not manufacture (or have manufactured on their behalf) CAPTISOL for such use without CyDex' prior written consent. CyDex agrees that CyDex shall produce (or have produced for it) and sell to Proteolix one hundred percent (100%) of Proteolix' and its Affiliates'

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and Sublicensees' requirements for CAPTISOL for use in Product, during the Term and subject to the provisions of this Agreement. Purchases of CAPTISOL may include Research Grade CAPTISOL, Clinical Grade CAPTISOL and/or Commercial Grade CAPTISOL. Proteolix may place orders for CAPTISOL on behalf of its Affiliates and Sublicensees; *provided, however*, that:

(a) Proteolix shall instruct CyDex as to the location for the shipment thereof; (b) Proteolix shall guarantee payment to CyDex of all amounts payable with respect thereto; and (c) if Proteolix requests that CyDex deliver such orders to Proteolix for re-delivery thereof by Proteolix to its Affiliates or Sublicensees, Proteolix shall comply with all applicable laws, rules and regulations applicable to the transportation of CAPTISOL from Proteolix to its Affiliates and Sublicensees.

3.2 Supply Terms.

(a) Long-term Forecast. No later than [**] months prior to the anticipated Commercial Launch Date by Proteolix or its Affiliates or Sublicensees of a Product in any particular country, Proteolix shall provide CyDex with a forecast setting forth Proteolix' estimate of the required quantities of Commercial Grade CAPTISOL for each of the following [**] years. Such long-term forecast shall thereafter be updated by Proteolix at least once every [**] months.

(b) Detailed Forecasts.

(i) Commercial Forecasts: At least [**] calendar quarters prior to the calendar quarter in which Proteolix anticipates the placement of its first order for Commercial Grade CAPTISOL, and thereafter on a calendar quarterly basis until the First Commercial Sale Date, Proteolix shall deliver to CyDex a detailed rolling forecast setting forth Proteolix' anticipated requirements and anticipated delivery schedules for Commercial Grade CAPTISOL for the calendar quarter in which the Commercial Launch Date of a Product is anticipated to occur and, in addition, for each full calendar quarter during the [**] month period following such anticipated Commercial Launch Date (the "Initial Detailed Forecast"). No later than the first day of the first full calendar quarter following the Commercial Launch Date, and no later than the first day of each full calendar quarter thereafter, Proteolix shall deliver to CyDex a detailed rolling forecast setting forth Proteolix' anticipated requirements and anticipated delivery schedules for Commercial Grade CAPTISOL for each of the [**] full calendar quarters during the [**] month period following the delivery date of such forecast (each, a "Detailed Forecast"). Each Detailed Forecast shall be firm and binding on Proteolix with respect to Proteolix' obligation to purchase quantities of Commercial Grade CAPTISOL for the [**] and [**] full calendar quarter in such Detailed Forecast, subject to the permissible variances set forth in Section 3.2(c) below, and estimates of Proteolix' requirements for the [**] and [**] full calendar quarters in such Detailed Forecast. If Proteolix fails to provide any updated Detailed Forecast in accordance with this Section 3.2(b), the Detailed Forecast last provided by Proteolix shall be deemed to be the updated Detailed Forecast, and the next full calendar quarter estimate of Proteolix' requirements for Commercial Grade CAPTISOL set forth in such Detailed Forecast shall be a firm and binding obligation with respect to Proteolix' obligation to purchase Commerc

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- (ii) Clinical Forecasts: Beginning [**] months after the Effective Date, Proteolix shall deliver to CyDex at least every [**] months, a rolling forecast of their estimated requirements for Clinical Grade CAPTISOL for so long as Proteolix requires clinical grade material during the Term. Upon commencement of the Detailed Forecast as specified in Section 3.2(b) above, the Clinical Forecast shall be incorporated, as a separate subsection, into such Detailed Forecast. The frequency of the Clinical Forecast shall then be the same as for the Detailed Forecast. The Clinical Forecast shall be for planning purposes only, and thus shall not be binding in any manner whatsoever until a PO has been placed by Proteolix for said Clinical Grade CAPTISOL and accepted by CyDex.
- **(c) Detailed Forecast Variances.** Each updated Detailed Forecast may modify the amount of Commercial Grade CAPTISOL estimated in the previous Detailed Forecast in accordance with the following limitations (the "**Purchase Volume Limitations**"):
- (i) for the first calendar quarter covered by such updated Detailed Forecast ("Ql"), no change may be made without the prior express written consent of CyDex;
- (ii) for the second calendar quarter covered by such updated Detailed Forecast, no change in excess of a [**] percent [**] volume increase or decrease from the prior Detailed Forecast may be made without the prior express written consent of CyDex;
- (iii) for the third calendar quarter covered by such updated Detailed Forecast, no change in excess of a [**] percent [**] volume increase or decrease from the prior Forecast may be made without the prior express written consent of CyDex; and
- (iv) for the fourth calendar quarter covered by such updated Detailed Forecast, no change in excess of a [**] percent [**] volume increase or decrease from the prior Forecast may be made without the prior express written consent of CyDex.

In each case CyDex' consent may be conditioned on such payment or other terms as CyDex may require.

(d) Purchase Orders. Together with each Detailed Forecast provided under Section 3.2(b) above, Proteolix shall place a firm purchase order with CyDex in a form mutually agreed upon by the parties, for Proteolix' order of Commercial Grade CAPTISOL for Q1 delivery consistent with the Detailed Forecast. Each purchase order, for all grades of CAPTISOL, shall specify: (i) the grade of CAPTISOL ordered (i.e., Commercial Grade CAPTISOL, Clinical Grade CAPTISOL or Research Grade CAPTISOL); (ii) quantities; (iii) delivery dates; and (iv) reasonable shipping instructions. CyDex shall use commercially reasonable efforts to comply with Proteolix' requested delivery dates; provided, however, that the purchase order is received by CyDex at least [**] days prior to the stipulated delivery date. No purchase order shall be binding upon CyDex until accepted by CyDex in writing; provided, however, that CyDex shall accept such orders for Commercial Grade CAPTISOL from Proteolix to the extent that the quantities of CAPTISOL ordered do not exceed the Purchase Volume Limitations. CyDex shall not be obligated to accept such orders to the extent that the quantities of Commercial Grade CAPTISOL ordered exceed the Purchase Volume Limitations, but CyDex shall use good faith efforts to fill such orders for such excess quantities from available supplies.

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If CyDex, despite the use of good faith efforts, is unable to supply such quantities that exceed the Purchase Volume Limitations to Proteolix, such inability to supply shall not be deemed to be a breach of this Agreement by CyDex or a failure by CyDex to supply for any purpose. Ordered quantities of Commercial Grade CAPTISOL shall be specified in multiples of [**] kilograms, subject to a minimum order quantity of [**] kilograms. CyDex shall use reasonable efforts to notify Proteolix within [**] business days after its receipt of Proteolix' purchase order of its ability to fill any amounts of such order that are in excess of the Purchase Volume Limitations. If any purchase order or other document submitted by Proteolix hereunder or any other document passing between the parties contains terms or conditions in addition to or inconsistent with the terms of this Agreement, the terms of this Agreement shall control and prevail and such additional or inconsistent terms are hereby expressly rejected.

- **3.3 Delivery.** CyDex shall deliver to Proteolix or Proteolix' designee each order of CAPTISOL, packed for shipment in accordance with CyDex' customary practices and the Specifications, CIP Proteolix designated location (Incoterms 2000). Title and risk of loss and/or damage to CAPTISOL shall pass to Proteolix upon delivery of CAPTISOL to Proteolix or Proteolix' designee at Proteolix's designed location. CyDex acknowledges the inherent risk that a batch of CAPTISOL may be lost in production or shipment, and CyDex agrees to maintain an inventory of CAPTISOL sufficient to supply at least [**] days worth of Proteolix' requirements in the event of production or delivery delays.
- 3.4 Modified Specifications. CyDex shall have the right to change the Specifications from time to time during the Term; provided that such change has no adverse effect or consequence on Proteolix' development or commercialization of the Product including, for example, an effect or consequence that requires Proteolix to conduct any clinical study requested by the FDA or other regulatory agency. Any change in the Specifications that would have an adverse effect or consequence on Proteolix' development or commercialization of the Product will require Proteolix' prior written consent. In the event that CyDex desires to change the Specifications, CyDex shall give Proteolix at least [**] days notice. CyDex shall cooperate with Proteolix to have any change approved by the FDA and other regulatory agencies having jurisdiction. In the event that the FDA or another regulatory agency having jurisdiction requires Proteolix to implement any changes to the Specifications, CyDex shall use all reasonable efforts to make such changes. CyDex shall promptly advise Proteolix as to any lead-time changes or other terms that may result from a change to the Specifications, including but not limited to price adjustments necessary to enable CyDex to recover costs it actually incurred for materials already purchased by CyDex expressly for Proteolix, its Affiliates or Sublicensees and rendered unusable by a change in Specifications requested by Proteolix or as necessary to comply with government regulatory requirements with respect to the Product If a regulatory agency requires a change to the Specifications where such change is specific to CAPTISOL and not specific to the Product then CyDex shall be responsible for the costs incurred to generate such unique, modified Specifications.

3.5 Quality Control; Acceptance and Rejection.

(a) Quality Control. CyDex shall conduct or have conducted quality control testing of CAPTISOL prior to shipment in accordance with the Specifications and other CyDex-

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approved quality control testing procedures (the "Testing Methods"). CyDex shall retain or have retained accurate and complete records pertaining to such testing. Each shipment of CAPTISOL hereunder shall be accompanied by a certificate of analysis for each lot of CAPTISOL therein.

- (b) Acceptance Testing. Proteolix shall have a period of [**] days after the date of receipt to test or cause to be tested CAPTISOL supplied under this Agreement. Proteolix or its designee shall have the right to reject any shipment of CAPTISOL that does not conform in all material respects with the Specifications at the time of delivery pursuant to Section 3.3 hereof when tested in accordance with the Testing Methods. All shipments of CAPTISOL shall be deemed accepted by Proteolix unless CyDex receives written notice of rejection from Proteolix within such [**] day period, describing the reasons for the rejection in reasonable detail. Once a delivery of CAPTISOL is accepted or deemed accepted hereunder, Proteolix shall have no recourse against CyDex in the event CAPTISOL is subsequently deemed unsuitable for use for any reason, except as provided in Sections 7.4 and 10 below.
- (c) Confirmation. CyDex shall notify Proteolix as soon as reasonably practical (but in any event within [**] days) after its receipt of a notice of rejection from Proteolix pursuant to Section 3.5(b) above, whether CyDex accepts Proteolix' basis for rejection and Proteolix shall cooperate with CyDex in determining whether such rejection was necessary or justified. If the parties are unable to agree as to whether a shipment of CAPTISOL supplied by CyDex or its Third-Party Manufacturer hereunder meets the Specifications, such question shall be submitted to an independent quality control laboratory mutually agreed upon by the parties. The findings of such independent laboratory shall be binding upon the parties. The cost of the independent quality control laboratory shall be borne by the party whose results are shown by such laboratory to have been incorrect.
- (d) Return or Destruction of Rejected Shipments. Proteolix may not return or destroy any batch of CAPTISOL until it receives written notification from CyDex that CyDex does not dispute that the batch fails to meet the Specifications; *provided* that if Proteolix does not receive such written notice within [**] days after its delivery of a notice of rejection to CyDex pursuant to Section 3.5(b) above, CyDex shall be deemed to agree that such batch fails to meet the Specifications. CyDex will indicate in its notice either that Proteolix is authorized to destroy the rejected batch of CAPTISOL or that CyDex requires return of the rejected CAPTISOL. Upon written authorization from CyDex to do so, Proteolix shall promptly destroy the rejected batch of CAPTISOL and provide CyDex with written certification of such destruction. Upon receipt of CyDex' request for return, Proteolix shall promptly return the rejected batch of CAPTISOL to CyDex. In each case, CyDex will reimburse Proteolix for the documented, reasonable costs associated with the destruction or return of the rejected CAPTISOL.
- (e) Refund or Replacement. Proteolix shall not be required to pay any invoice with respect to any shipment of CAPTISOL properly rejected pursuant to this Section 3.5. Notwithstanding the foregoing, Proteolix shall be obligated to pay in full for any rejected shipment of CAPTISOL that is subsequently determined to meet the Specifications in accordance with Section 3.5(c), irrespective of whether Proteolix has already paid CyDex for a replacement shipment. If Proteolix pays in full for a shipment of CAPTISOL and subsequently

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properly rejects such shipment in accordance with this **Section 3.5**, Proteolix shall be entitled, upon confirmation that such shipment failed to meet the Specifications in all material respects, either: (i) to a refund or credit equal to the purchase price paid with respect to such rejected shipment; or (ii) to require CyDex to replace such rejected shipment at no additional cost to Proteolix. Proteolix acknowledges and agrees that, except for the indemnification obligations set forth in **Section 10** below, Proteolix' rights to a refund or credit for or to receive replacement of properly rejected shipments of CAPTISOL hereunder shall be Proteolix' sole and exclusive remedy, and CyDex' sole obligation, with respect to non-conforming CAPTISOL delivered hereunder.

- **(f) Exceptions.** Proteolix' rights of rejection, return, refund and replacement set forth in this **Section 3.5** shall not apply to any CAPTISOL that is non-conforming due to damage caused by Proteolix, its Affiliates or Sublicensees or their respective employees or agents, including but not limited to, misuse, neglect, improper storage, transportation or use beyond any dating provided.
- 3.6 Facilities and Inspections. Without limiting CyDex' responsibility under this Agreement, CyDex shall have the right at any time to satisfy its supply obligations to Proteolix hereunder either in whole or in part through arrangements with third parties engaged to perform services or supply facilities or goods in connection with the manufacture or testing of CAPTISOL (each, a "Third-Party Manufacturer"). CyDex shall give Proteolix prior written notice of any such arrangement. CyDex shall permit no more than [**] of Proteolix' authorized representatives, during normal working hours and upon reasonable prior notice to CvDex but in no event less than [**] days prior notice, to inspect that portion of all CyDex facilities utilized for the manufacture, preparation, processing, storage or quality control of CAPTISOL or such facilities of any Third-Party Manufacturer, no more frequently than [**] per calendar year. Notwithstanding the foregoing, CyDex agrees to reasonably cooperate, and shall require any Third-Party Manufacturer to reasonably cooperate, with all regulatory authorities and shall submit to reasonable CAPTISOL-related inspections by such authorities. With respect to inspection of the facilities of a Third Party Manufacturer by Proteolix, its Affiliates or Sublicensees, Proteolix shall be responsible for any reasonable fees charged by CyDex' Third Party Manufacturer in connection with such inspections (as of the Effective Date, [**] Dollars [**] per person per day). Proteolix' authorized representatives shall be accompanied by CyDex personnel at all times, shall be qualified to conduct such manufacturing audits, shall comply with all applicable rules and regulations relating to facility security, health and safety, and shall execute a written confidentiality agreement with terms at least as restrictive as those set forth in Section 8 (Confidentiality) hereof. In no event shall any such manufacturing audit exceed [**] days in duration. Proteolix shall ensure that its authorized representatives conduct each manufacturing audit in such a manner as to not interfere with the normal and ordinary operation of CvDex or its Third-Party Manufacturer. Except as expressly set forth in this Section 3.6, neither Proteolix nor its Affiliates, sublicensees or their respective employees or representatives shall have access to CyDex' facilities or the facilities of any Third-Party Manufacturer.

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3.7 Inability to Supply.

- (a) Notice. CyDex shall notify Proteolix if CyDex is unable to supply the quantity of (i) Commercial Grade CAPTISOL ordered by Proteolix in accordance with the Purchase Volume Limitations set forth in Section 3.2(c) or (ii) Research Grade CAPTISOL or Clinical Grade CAPTISOL ordered by Proteolix as set forth in Section 3.2(d) above: (1) within [**] days after CyDex' receipt of a purchase order from Proteolix as provided in Section 3.2(d); or (2) immediately upon becoming aware of an event of *force majeure* or any other event that would render CyDex unable to supply to Proteolix the quantity of CAPTISOL that CyDex is required to supply hereunder.
- **(b) Allocation.** If CyDex is unable to supply to Proteolix the quantity of CAPTISOL that CyDex is required to supply hereunder, CyDex (i) shall allocate its available CAPTISOL among Proteolix and any other purchasers of CAPTISOL with which CyDex then has an on-going contractual relationship, in proportion to the quantity of CAPTISOL for which each of them has orders pending at such time and (ii) shall take all reasonable steps necessary to minimize supply delays.
- (c) Right to Manufacture. If CyDex is not able to supply CAPTISOL to Proteolix which meets Specifications or in the quantity requirements for CAPTISOL ordered in accordance with this Section 3, Proteolix shall be entitled to manufacture CAPTISOL but only for Proteolix' clinical use, marketing, sale and distribution of the Product. Notwithstanding the above, Proteolix may exercise such right to manufacture CAPTISOL only if (i) CyDex' inability to supply CAPTISOL could reasonably be expected to result in a period of time during which no CAPTISOL would be available to Proteolix for the clinical use, marketing, sale and distribution of the Product, (ii) there is no reason to believe that CyDex would be able to re-start manufacture of CAPTISOL more quickly than Proteolix or Proteolix' designee could start manufacture of CAPTISOL, and (iii) CyDex' inability to supply CAPTISOL did not result, wholly or in part, from factors within the control of CyDex.

4. COMPENSATION.

4.1 Payments and Royalties for Licenses.

- (a) One-Time Fee. Proteolix shall pay to CyDex a [**] one-time fee of [**] dollars (\$[**]) in partial consideration of the rights granted Proteolix under this Agreement, which amount shall be due and payable in full upon the Effective Date.
- **(b) Milestone Payments.** Pursuant to **Section 5.2(a)**, written notice of each of the milestone events listed below with respect to the Product shall be provided to CyDex, and within [**] days after such written notice of each of the milestone events, Proteolix shall pay to CyDex the applicable non-refundable milestone fee listed next to each such event in further consideration of the rights granted Proteolix hereunder. The milestone payments are as follows:

| MILESTONE | | MILESTONE PAYMENT | |
|-----------|--|---|--|
| [**] | | [**] | |
| | | | |
| [**] = | Certain confidential information contained in this doc | ument, marked by brackets, has been omitted and filed separately with | |

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| MILESTONE | MILESTONE PAYMENT |
|---|-------------------|
| [**] | [**] |
| [**] | [**] |
| [**] | [**] |
| [**] | [**] |
| [**] | [**] |
| Upon first achievement of [**] in annual Net Sales of | [**] |
| Product | |
| Upon first achievement of [**] in annual Net Sales of | [**] |
| Product | |
| Upon first achievement of [**] in annual Net Sales of | [**] |
| Product | |

(c) Royalties.

(i) In addition to amounts payable pursuant to **Sections 4.1(a)** and **4.1(b)** above, Proteolix shall make royalty payments to CyDex on a calendar quarterly basis, in an amount equal to the appropriate royalty rate, according to the following rate schedule, to the applicable Net Sales during such quarter arising from the sale of the Product in the Territory. All royalties payable to CyDex pursuant to this **Section 4.1(c)(i)** shall be due and payable within [**] days after receipt of the Quarterly Report as set forth in **Section 5.2(a)**.

| AGGREGATE NET SALES IN | | |
|------------------------------|--------------|--|
| EACH CALENDAR YEAR | ROYALTY RATE | |
| Up to, and including, [**] | [**] | |
| [**] to [**] | [**] | |
| [**] to [**] | [**] | |
| Above [**] | [**] | |

For clarity, the royalty rates set forth above in **Section 4.1(c)** shall be applied to the total Net Sales of Product falling within the applicable range of aggregate annual Net Sales during the quarter. For example, if at the end of the first quarter of a particular calendar year, aggregate Net Sales of such Product was [**], then sales representing the first [**] in such first quarter would be subject to the [**] royalty rate and the remaining [**] would be subject to the [**] royalty rate under **Section 4.1(c)**. In subsequent quarters of the same calendar year, all sales of Product would be subject to the [**] royalty rate until total aggregate sales of Product in such calendar year reached [**], at which point all further sales of Product up to [**] would be subject to the [**] royalty rate. For aggregate sales exceeding [**] in the same calendar year, such sales of Product would be subject to the [**] royalty rate.

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12.

(ii) The obligation of Proteolix to pay royalties to CyDex under this Section 4.1(c) shall commence on the first Commercial Launch Date of the Product in the Field in the Territory and continue, on a country-by-country basis, (1) until the expiration of the last to expire patent within the Licensed Patents in such country, and (2) after the period described in (1), a period of [**] years with royalties to be calculated on aggregate annual Net Sales at a rate equal to [**] percent [**] of the royalty rates set forth in Section 4.1(c)(i) above. Thereafter, Proteolix shall have a paid up, royalty-free license with respect to the Product in the Field.

4.2 Pricing for CAPTISOL.

- (a) Pricing. The purchase prices for CAPTISOL are as specified in *Exhibit C* attached hereto. CyDex reserves the right to increase the purchase prices set forth on *Exhibit C* on each January 1 during the Term, by written notice to Proteolix, by a percentage equal to the aggregate percentage increase, if any, in the Producer Price Index PCU325412 (Pharmaceutical preparations) as reported by the Bureau of Labor Statistics, U.S. Department of Labor, for the twelve (12) month period ending October 31 of the prior year. If Proteolix fails to place a firm purchase order for any Q1 for a quantity of Commercial Grade CAPTISOL to be delivered during such Q1 equal to or greater than the quantity of Commercial Grade CAPTISOL Proteolix is obligated to purchase pursuant to the applicable Detailed Forecast, allowing for the variances as defined in Section 3.2(c), CyDex may adjust the purchase price of Commercial Grade CAPTISOL ordered under this Agreement so as to permit CyDex to recover all reasonable costs and expenses incurred by CyDex in reliance upon Proteolix' binding obligation, including but not limited to the costs of the raw materials and supplies of CAPTISOL acquired or used in contemplation of fulfilling such order.
- **(b) Invoicing; Payment.** CyDex shall invoice Proteolix upon shipment of each order of CAPTISOL. All invoices shall be sent to the address specified in the applicable purchase order, and each invoice shall state the purchase price for CAPTISOL in such shipment, plus any insurance, taxes, shipping costs or other costs incidental to such purchase or shipment initially paid by CyDex but to be borne by Proteolix hereunder; *provided, however*, that if such insurance, taxes, shipping costs or other costs incidental to such purchase or shipment initially paid by CyDex but to be borne by Proteolix are not known at the time CyDex invoices Proteolix for the purchase price for the CAPTISOL ordered by Proteolix, CyDex may invoice such costs at a later date. Payment of such invoices shall be made within [**] days after the date of delivery of such invoice pursuant to **Section 14.7**.
- **4.3** Currency. All amounts due hereunder are stated in, and shall be paid in, U.S. dollars. Net Sales based on foreign revenue will be converted to U.S. dollars at the rate of exchange published in *The Wall Street Journal*, Eastern U.S. Edition on the last day of each calendar quarter. Proteolix shall provide CyDex, together with each royalty payment owed pursuant to **Section 4.1(c)** above, a schedule detailing the calculation of Net Sales resulting from the conversion of foreign revenue to U.S. dollars as set forth herein.
- **4.4 Taxes.** All amounts due hereunder exclude all applicable sales, use, and other taxes, and Proteolix will be responsible for payment of all such taxes (other than taxes based on CyDex' income), fees, duties, and charges, and any related penalties and interest, arising from

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13.

the payment of amounts due hereunder or the sublicense or license, as the case may be, under the Licensed Patents hereunder. Proteolix shall make all payments to CyDex hereunder free and clear of, and without reduction for, any withholding taxes; any such taxes imposed on payments of amounts to CyDex hereunder will be Proteolix' sole responsibility, and Proteolix will provide CyDex with official receipts issued by the appropriate taxing authority, or such other evidence as the CyDex may reasonably request, to establish that such taxes have been paid. Proteolix shall indemnify and hold CyDex harmless from any and all such taxes and any actions brought against CyDex by any taxing authority with respect to such taxes.

4.5 Late Payments. Unpaid balances shall accrue interest, from due date until paid, at a rate equal to the lesser of (a) the prime rate, as reported in *The Wall Street Journal*, Eastern U.S. Edition, on the date such payment is due, plus an additional [**] percent [**] or (b) the maximum rate permitted under applicable law. If any amount due hereunder and not subject to a reasonable, good-faith dispute by Proteolix remains outstanding for more than [**] days after its due date, CyDex may, in addition to any other rights or remedies it may have, refuse to ship CAPTISOL hereunder except upon payment by Proteolix in advance.

5. RECORDS; REPORTS; AUDIT.

5.1 Records. During the Term and for a period of [**] years thereafter, Proteolix shall, and shall require its Affiliates and Sublicensees to, maintain complete and accurate records relating to (a) subject enrollment in clinical studies for the Product; (b) the achievement of each of the milestone events set forth in **Section 4.1(b)** above; and (c) Net Sales of Product.

5.2 Reports.

- (a) Quarterly Reports. Within [**] calendar days following the conclusion of each calendar quarter during the Term, Proteolix shall provide CyDex with a written report with respect to such calendar quarter that (i) indicates subject enrollment numbers during such calendar quarter with respect to clinical studies conducted by Proteolix, its Affiliates or Sublicensees for the Product; (ii) sets forth the achievement of each of the milestone events set forth in Section 4.1(b) above during such calendar quarter whether achieved by Proteolix, its Affiliates and Sublicensees, and (iii) sets forth in reasonable detail complete and accurate records of Proteolix', its Affiliates' and Sublicensees' Net Sales of the Product in the Territory during such calendar quarter.
- **(b) Annual Reports.** Annually, by December 1 st of each calendar year during the Term, Proteolix shall provide CyDex with a written report that: (i) sets forth the achievement of each of the milestone events set forth in **Section 4.1(b)** above during such calendar year whether achieved by Proteolix, its Affiliates or Sublicensees; (ii) sets forth Proteolix' anticipated requirements of CAPITSOL for preclinical and clinical use during the next calendar year; (iii) sets forth in reasonable detail complete and accurate records of Proteolix', its Affiliates' and Sublicensees' Net Sales of the Product in the Territory during such calendar year.
- **5.3 Audit.** During the Term and for a period of [**] years thereafter, CyDex shall have the right, during normal business hours and upon reasonable notice but no more often than [**] per year, to inspect and audit Proteolix', its Affiliates' and Sublicensees' records relevant to

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Net Sales. The costs of such audits shall be borne solely by CyDex; provided, however, that in the event such an audit reveals an underpayment by Proteolix of royalties owed hereunder of more than [**] percent [**], Proteolix shall immediately (i) pay CyDex all amounts by which Proteolix has underpaid CyDex as revealed by the audit, plus interest accrued thereon (from the applicable original due date) at the rate set forth in **Section 4.5** above and (ii) reimburse CyDex for the costs of such audit. In the event such an audit reveals an overpayment by Proteolix of royalties owed hereunder, CyDex shall immediately credit all amounts by which Proteolix has overpaid CyDex as revealed by the audit against any amounts owed by Proteolix to CyDex in the next payment period. All information concerning royalty payments and reports, and any information learned in the course of any audit or inspection under this **Section 5.3**, shall be deemed to be Confidential Information of Proteolix, subject to the terms and provisions of **Section 8** (Confidentiality) below, except to the extent necessary for CyDex to enforce its rights under this Agreement.

6. DEVELOPMENT AND COMMERCIALIZATION BY PROTEOLIX.

- **6.1 Diligence.** Proteolix agrees that, during the Term, it will use, and shall require its Affiliates and Sublicensees to use, commercially reasonable efforts to conduct clinical development of the Product, to obtain Marketing Approval in the United States, Japan and the European Union, and to market, promote, and sell the Product thereafter in each country in which Marketing Approval is obtained, in an effort to maximize Net Sales and, thus, royalties payable under this Agreement.
- **6.2 Costs and Expenses.** Proteolix shall be solely responsible for all costs and expenses related to its development and commercialization of the Product, including without limitation costs and expenses associated with all preclinical activities and clinical trials, and all regulatory filings and proceedings relating to the Product.
- 6.3 Preclinical In Vivo Studies. If Proteolix wishes to conduct any preclinical in vivo study utilizing CAPTISOL (administered alone or in conjunction with the Compound) at doses greater than those set forth in *Exhibit D*, Proteolix shall notify CyDex of any such study and of the protocol therefor in writing at least [**] days prior to commencing such study. If CyDex determines in its reasonable good faith determination that such study would materially adversely affect a product utilizing CAPTISOL, CyDex shall notify Proteolix within [**] days after receipt of such notice and protocol from Proteolix, and the parties shall discuss and attempt to resolve the matter in good faith. If the parties cannot resolve such matter within [**] days after CyDex notifies Proteolix of such determination, then the dispute shall be presented to the chief executive officer of each party, or his or her respective designee, for resolution. If the parties' chief executive officers, or their respective designees, cannot resolve the dispute within [**] days after being requested by a party to resolve such dispute, either party may initiate a short-form arbitration proceeding pursuant to Section 14.4(b) (Short-Form Arbitration) below. If CyDex determines in its reasonable good faith determination that such study would not materially adversely affect a product utilizing CAPTISOL, CyDex shall notify Proteolix within [**] days following receipt of Proteolix' notice. Proteolix agrees to (a) immediately inform CyDex if any adverse effects are observed and ascribed to CAPTISOL in any study conducted

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15.

under this **Section 6.3**, and (b) provide CyDex with copies of the final and full reports of all studies conducted under this **Section 6.3**, promptly upon completion thereof.

- **6.4 Right of Reference.** Proteolix shall have the right to reference the DMF solely in connection with Proteolix' regulatory filings submitted in connection with obtaining Marketing Approval for the Product.
- **6.5** Access to Proteolix' Data. CyDex shall have the right to reference and utilize all toxicology/safety and other relevant scientific data developed on CAPTISOL alone (and not in conjunction with a product formulation) by Proteolix, its Sublicensees or Affiliates in connection with CyDex' development and commercialization of CAPTISOL, at no cost to CyDex. Upon request by CyDex, Proteolix shall either provide CyDex with a copy of all such data or shall make such data accessible to CyDex at such times and locations mutually agreed upon by the parties.

7. REGULATORY MATTERS.

- 7.1 CAPTISOL Information Submitted for Regulatory Review. Except as otherwise set forth herein, Proteolix shall be solely responsible for all communications with regulatory agencies in connection with the Product. Notwithstanding the foregoing, Proteolix shall provide CyDex with copies of the portions of all regulatory submissions containing CAPTISOL data alone (and not in conjunction with any product formulation) [**] days prior to submission and shall allow CyDex to review and comment upon said submissions. If CyDex determines in its reasonable good faith determination that any such submission would materially adversely affect a product utilizing CAPTISOL, CyDex shall notify Proteolix within [**] days after receipt of such submission, and the parties shall discuss and attempt to resolve the matter in good faith. If the parties cannot resolve such matter within [**] days after CyDex notifies Proteolix of such a determination, then the dispute shall be presented to the chief executive officer of each party, or his or her respective designee, for resolution. If the parties' chief executive officers, or their respective designees, cannot resolve the dispute within [**] days after being requested by a party to resolve such dispute, either party may initiate a short-form arbitration proceeding pursuant to Section 14.4(b) below. Proteolix shall inform CvDex of meetings with the FDA (or other regulatory agencies in the Territory) regarding the Product [**] days prior to such event and shall allow CyDex to participate in any FDA (or other regulatory agency) review that might reasonably include inquiries regarding CAPTISOL. If Proteolix submits written responses to the FDA that include data on CAPTISOL alone, CyDex shall be permitted to review such written materials prior to submission. If CyDex reasonably objects to the contents of such written responses relating to CAPTISOL, the parties agree to cooperate in working toward a reasonable and mutually agreeable response.
- **7.2 Material Safety.** CyDex shall provide Proteolix, in writing, from time to time, with (a) relevant information currently known to it regarding handling precautions, toxicity and hazards with respect to CAPTISOL, and (b) the then-current material safety data sheet for CAPTISOL. Notwithstanding the foregoing or anything in this Agreement to the contrary, Proteolix is solely responsible for (i) use of all documentation provided by CyDex, including without limitation, use in any regulatory submission to the FDA or any other regulatory agency

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in the Territory, (ii) document control and retention, and (iii) determining the suitability of any documentation provided by CyDex hereunder for use in any regulatory submission.

7.3 Adverse Event Reporting.

- (a) Proteolix shall adhere, and shall require that its Affiliates, Sublicensees, co-marketers and distributors adhere, to all requirements of applicable law and regulations that relate to the reporting and investigation of any adverse event, including without limitation an unfavorable and unintended confirmed diagnosis, symptom, sign, syndrome or disease, whether or not considered CAPTISOL or Product-related, which occurs or worsens following administration of CAPTISOL or Product. Proteolix shall provide CyDex with copies of all reports of any such adverse event directly involving CAPTISOL that results in death, is life-threatening, requires or prolongs inpatient hospitalization, results in disability, congenital anomaly or is medically important (*i.e.*, may require other medical or surgical intervention to prevent other serious criteria from occurring) which Proteolix has reason to believe are associated with CAPTISOL within [**] business days following Proteolix' (a) submission of any such report to any regulatory agency, as the case may be. Proteolix shall also advise CyDex regarding any proposed labeling or registration dossier changes affecting CAPTISOL. Reports from Proteolix shall be delivered to the attention of Vice President, Chief Scientific Officer, CyDex, with a copy to CEO, CyDex, at the address set forth in Section 14.7 (Notices). The parties shall mutually cooperate with regard to investigation of any such serious adverse event which is believed to be directly associated with CAPTISOL, whether experienced by Proteolix, CyDex or any other Affiliate, Sublicensee, co-marketer or distributor of CyDex or Proteolix.
- (b) CyDex shall adhere, and shall require that its Affiliates, Sublicensees, co-marketers and distributors adhere, to all requirements of applicable law and regulations that relate to the reporting and investigation of any adverse event, including without limitation an unfavorable and unintended confirmed diagnosis, symptom, sign, syndrome or disease, whether or not considered CAPTISOL-related, which occurs or worsens following administration of CAPTISOL alone or upon administration of a CAPTISOL-enabled formulated product. CyDex shall provide Proteolix with copies of all reports, some content of which may be redacted solely to protect the confidential information of third parties, of any such adverse event directly involving CAPTISOL that results in death, is life-threatening, requires or prolongs inpatient hospitalization, results in disability, congenital anomaly or is medically important (*i.e.*, may require other medical or surgical intervention to prevent other serious criteria from occurring) which CyDex has reason to believe are associated with CAPTISOL within [**] business days following CyDex' (a) submission of any such report to any regulatory agency, or (b) receipt from its Sublicensee, co-marketer or distributor of any such report to any regulatory agency, as the case may be. Reports from CyDex shall be delivered to the attention of Vice President of Development, Proteolix, with a copy to Chief Scientific Officer, Proteolix, at the address set forth in Section 14.7 (Notices). The parties shall mutually cooperate with regard to investigation of any such serious adverse event which is believed to be directly associated with CAPTISOL, whether experienced by Proteolix, CyDex or any other Affiliate, Sublicensee, co-marketer or distributor of CyDex or Proteolix. Such written notification to Proteolix as well as assistance

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17.

with any resulting investigation shall be provided in a manner such that no third party confidential information is compromised in doing so by either Proteolix or CyDex.

7.4 Product Recalls. If any CAPTISOL should be alleged or proven not to meet the Specifications, Proteolix shall notify CyDex immediately, and both parties shall cooperate fully regarding the investigation and disposition of any such matter. If Proteolix should deem it appropriate to recall any Product and such recall is due to the failure of CAPTISOL to conform to the relevant Specifications at the time of delivery by CyDex, then CyDex agrees, upon substantiation thereof, to bear all reasonable direct costs associated with said recall, including refund of the purchase price for such CAPTISOL and the actual cost of conducting the recall in accordance with the recall guidelines of the applicable governmental authority. Proteolix shall in all events be responsible for conducting any such recalls with respect to the Product and shall maintain records of all sales of Product and customers sufficient to adequately administer any such recall, for a period of [**] years after expiration or termination of this Agreement.

8. CONFIDENTIALITY.

- **8.1 Definition.** Proteolix and CyDex each recognizes that during the Term, it may be necessary for a party (the "**Disclosing Party**") to provide Confidential Information to the other party (the "**Receiving Party**") that is highly valuable, the disclosure of which would be highly prejudicial to the Disclosing Party. The disclosure and use of Confidential Information will be governed by the provisions of this **Section 8**. Neither Proteolix nor CyDex shall use the other's Confidential Information except as expressly permitted in this Agreement. For purposes of this Agreement, "**Confidential Information**" means all information disclosed by the Disclosing Party to the Receiving Party and designated in writing by the Disclosing Party as "Confidential" (or equivalent), and all material disclosed orally which is declared to be confidential by the Disclosing Party at the time of such disclosure and confirmed in a writing marked as "Confidential" (or equivalent) and delivered to the Receiving Party within thirty (30) days after such disclosure, including but not limited to product specifications, data, know-how, formulations, product concepts, sample materials, business and technical information, financial data, batch records, trade secrets, processes, techniques, algorithms, programs, designs, drawings, and any other information related to a party's present or future products, sales, suppliers, customers, employees, investors or business. Without limiting the generality of the foregoing, CyDex' Confidential Information includes all materials provided as part of the CAPTISOL Data Package.
- **8.2 Obligation.** The Receiving Party agrees that it will disclose the Disclosing Party's Confidential Information to its own officers, employees, consultants and agents only if and to the extent necessary to carry out its responsibilities under this Agreement or in accordance with the exercise of its rights under this Agreement, and such disclosure shall be limited to the maximum extent possible consistent with such responsibilities and rights. The Receiving Party shall not disclose Confidential Information of the Disclosing Party to any third party without such Disclosing Party's prior written consent, and any such disclosure to a third party shall be pursuant to the terms of a non-disclosure agreement no less restrictive than this **Section 8**. The Receiving Party shall take such action to preserve the confidentiality of the Disclosing Party's Confidential Information as it would customarily take to preserve the confidentiality of its own

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Confidential Information (but in no event less than a reasonable standard of care). The Receiving Party, upon the Disclosing Party's request, will return all of the Disclosing Party's Confidential Information, including all copies and extracts of documents, within sixty (60) days of the request, and in any event, promptly following the expiration or termination of this Agreement; *provided, however*; that each party may retain one archival copy of such Confidential Information solely to be able to monitor its obligations that survive under this Agreement.

- **8.3 Exceptions.** The use and non-disclosure obligations set forth in this **Section 8** shall not apply to any Confidential Information, or portion thereof, that the Receiving Party can demonstrate:
 - (i) at the time of disclosure is in the public domain;
 - (ii) after disclosure, becomes part of the public domain, by publication or otherwise, through no fault of the Receiving Party;
 - (iii) is in the Receiving Party's possession prior to receipt from the Disclosing Party as long as obtained lawfully;
 - (iv) is made available to the Receiving Party by an independent third party, *provided, however*, that to the Receiving Party's knowledge, such information was not obtained by said third party, directly or indirectly, from the Disclosing Party hereunder; or
 - (v) is developed by Receiving Party without use of, application of or access to the Disclosing Party's Confidential Information as evidenced by the Receiving Party's records.

In addition, the Receiving Party may disclose information that is required to be disclosed by law, by a valid order of a court or by order or regulation of a governmental agency including but not limited to, regulations of the United States Securities and Exchange Commission, or in the course of litigation, *provided* that in all cases the Receiving Party shall give the other party prompt notice of the pending disclosure and makes a reasonable effort to obtain, or to assist the Disclosing Party in obtaining, a protective order preventing or limiting the disclosure and/or requiring that the Confidential Information so disclosed be used only for the purposes for which the law or regulation required, or for which the order was issued.

- **8.4 Injunction.** Each party agrees that should it breach or threaten to breach any provisions of this **Section 8**, the Disclosing Party may suffer irreparable damages and its remedy at law may be inadequate. Upon any breach or threatened breach by the Receiving Party of this **Section 8**, the Disclosing Party shall be entitled to seek injunctive relief in addition to any other remedy which it may have, without need to post any bond or security.
- **8.5** Third Party Information. Proteolix acknowledges that CyDex' Confidential Information includes information developed by Pfizer, Inc. ("Pfizer") that is confidential to both CyDex and Pfizer. In so far as Confidential Information of Pfizer is disclosed, Pfizer is a third-

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party beneficiary of this **Section 8** of this Agreement and may enforce it or seek remedies pursuant to it in accordance with its terms.

9. REPRESENTATIONS AND WARRANTIES.

- **9.1 Mutual Representations and Warranties.** Each party represents and warrants to the other that:
 - (a) it is a corporation duly organized and validly existing under the laws of the state or country of its incorporation;
 - (b) it has the complete and unrestricted power and right to enter into this Agreement and to perform its obligations hereunder;
- (c) this Agreement has been duly authorized, executed and delivered by such party and constitutes a legal, valid and binding obligation of such party enforceable against such party in accordance with its terms except as enforceability may be limited by applicable bankruptcy, insolvency, reorganization, receivership, moratorium, fraudulent transfer, or other similar laws affecting the rights and remedies of creditors generally and by general principles of equity;
- (d) the execution, delivery and performance of this Agreement by such party do not conflict with any agreement, instrument or understanding, oral or written, to which such party is a party or by which such party may be bound, nor violate any law or regulation of any court, governmental body or administrative or other agency having authority over such party;
- (e) all consents, approvals and authorizations from all governmental authorities or other third parties required to be obtained by such party in connection with the execution and delivery of this Agreement have been obtained;
- (f) no person or entity has or will have, as a result of the transactions contemplated by this Agreement, any right, interest or valid claim against or upon such party for any commission, fee or other compensation as a finder or broker because of any act by such party or its agents, or, with respect to Proteolix, because of any act by its Affiliates or Sublicensees; and
- (g) it has not entered into any agreement with any third party that is in conflict with the rights granted to the other party pursuant to this Agreement.
 - **9.2** CyDex Representations, Warranties and Covenants. CyDex represents and warrants to Proteolix that:
- (a) CyDex owns all title in and to the CAPTISOL to be provided to Proteolix under the terms and conditions of this Agreement, and has the right to sell CAPTISOL to Proteolix pursuant to the terms and conditions of this Agreement;

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- **(b)** As of the Effective Date, there are no actions, suits, investigations, claims or proceedings pending or threatened relating to the Licensed Patents, and that CyDex will notify Proteolix in writing within [**] days if any such actions, suits, investigations, claims or proceedings are initiated that could have material negative impact on Proteolix' development of the Product;
- (c) All CAPTISOL supplied to Proteolix under the terms and conditions of this Agreement (as applicable for Research Grade CAPTISOL, Clinical Grade CAPTISOL or Commercial Grade CAPTISOL, as the case may be) shall be manufactured in accordance with all laws, rules and regulations relating to such manufacture, current and future; and
 - (d) CyDex [**].
- 9.3 Disclaimer. THE WARRANTIES SET FORTH IN THIS SECTION 9 ABOVE ARE PROVIDED IN LIEU OF, AND EACH PARTY HEREBY DISCLAIMS, ALL OTHER WARRANTIES, EXPRESS AND IMPLIED, RELATING TO THE SUBJECT MATTER OF THIS AGREEMENT, CAPTISOL OR THE LICENSED PATENTS, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, TITLE AND NON-INFRINGEMENT OF THIRD PARTY RIGHTS. CYDEX WARRANTIES UNDER THIS AGREEMENT ARE SOLELY FOR THE BENEFIT OF PROTEOLIX AND MAY BE ASSERTED ONLY BY PROTEOLIX AND NOT BY ANY AFFILIATE, SUBLICENSEE OR ANY CUSTOMER OF PROTEOLIX, ITS AFFILIATES OR SUBLICENSEES. PROTEOLIX, ITS AFFILIATES AND SUBLICENSEES SHALL BE SOLELY RESPONSIBLE FOR ALL REPRESENTATIONS AND WARRANTIES THAT PROTEOLIX, ITS AFFILIATES OR SUBLICENSEES MAKE TO ANY CUSTOMER OF PROTEOLIX, ITS AFFILIATES OR SUBLICENSEES.

10. INDEMNIFICATION.

10.1 By CyDex. CyDex shall defend, indemnify and hold Proteolix and its Affiliates and Sublicensees, and each of their respective directors, officers and employees, harmless from and against any and all losses, damages, liabilities, costs and expenses (including the reasonable costs and expenses of attorneys and other professionals) (collectively "Losses") incurred by Proteolix as a result of any claim, demand, action or other proceeding (each, a "Claim") by a third party, to the extent such Losses arise out of: (a) any claim by such third party that the practice of the compositions or methods claimed in the Licensed Patents or the sale of CAPTISOL as included as an excipient within the Product infringe upon such third party's patent rights; (b) injury or other harm arising from the use of CAPTISOL alone, or (c) CyDex' breach of any of its representations, warranties and covenants set forth in Section 9 above; provided, however, that the foregoing obligation to indemnify shall not apply to the extent that Proteolix is obligated under Section 10.2 below to indemnify CyDex with respect to a Claim, and CyDex shall be relieved of its obligations under clause (a) of this Section 10.1 for any infringement claim that arises out of: (i) the unauthorized use of the Licensed Patents by Proteolix; or (ii) the manufacture, handling, marketing, sale, distribution or use of Product by Proteolix. If an

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injunction is issued preventing the practice of the Licensed Patents, CyDex may, at its option, terminate this Agreement immediately upon written notice to Proteolix; *provided* that such termination shall have no effect on CyDex' indemnification obligations pursuant to this **Section 10.1** incurred prior to the effective date of such termination. THIS **SECTION 10** STATES CYDEX' SOLE OBLIGATION AND ENTIRE LIABILITY, AND PROTEOLIX', ITS AFFILIATES' AND SUBLICENSEES' SOLE AND EXCLUSIVE REMEDY, FOR ANY CLAIM OF INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS RELAYED TO THE LICENSED PATENTS OR PRODUCT.

10.2 By Proteolix. Proteolix shall defend, indemnify and hold CyDex and its Affiliates, and each of their respective directors, officers and employees, harmless from and against any and all Losses incurred by CyDex as a result of any Claim by a third party, to the extent such Losses arise out of: (a) the use or sale of the Product by Proteolix, its Affiliates, Sublicensees, distributors, agents, or other parties (except to the extent such Losses arise from the use of CAPTISOL); (b) the manufacture, use, handling, promotion, marketing, distribution, sale or use of Product (except to the extent such Losses arise from the use of CAPTISOL); (c) interactions and communications with governmental authorities, physicians or other third parties; or (d) Proteolix' breach of any of its representations and warranties set forth in Section 9.1; provided, however, the foregoing obligation to indemnify shall not apply to the extent that CyDex is obligated under Section 10.1 above to indemnify Proteolix with respect to a Claim.

10.3 Procedure. The party intending to claim indemnification under this Section 10 (an "Indemnitee") shall promptly notify the other party (the "Indemnitor") of any Claim in respect of which the Indemnitee intends to claim such indemnification, and the Indemnitor shall assume the defense thereof whether or not such Claim is rightfully brought; provided, however, that an Indemnitee shall have the right to retain its own counsel, with the fees and expenses to be paid by the Indemnitee, unless Indemnitor does not assume the defense, in which case the reasonable fees and expenses of counsel retained by the Indemnitee shall be paid by the Indemnitor. The Indemnitee, and its employees and agents, shall cooperate fully with the Indemnitor and its legal representatives in the investigations of any Claim.

11. LIMITATION OF LIABILITY.

EXCEPT FOR DAMAGES FOR WHICH CYDEX IS RESPONSIBLE PURSUANT TO ITS INDEMNIFICATION OBLIGATIONS SET FORTH IN SECTION 10 ABOVE, CYDEX SPECIFICALLY DISCLAIMS ALL LIABILITY FOR AND SHALL IN NO EVENT BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, EXPENSES, LOST PROFITS, LOST SAVINGS, INTERRUPTIONS OF BUSINESS OR OTHER DAMAGES OF ANY KIND OR CHARACTER WHATSOEVER ARISING OUT OF OR RELATED TO THIS AGREEMENT OR RESULTING FROM THE MANUFACTURE, HANDLING, MARKETING, SALE, DISTRIBUTION OR USE OF THE PRODUCT OR USE OF THE LICENSED PATENTS AND CAPTISOL DATA PACKAGE, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT, STRICT LIABILITY OR OTHERWISE, EVEN IF CYDEX WAS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. PROTEOLIX SHALL HAVE NO REMEDY, AND CYDEX SHALL HAVE NO LIABILITY, OTHER THAN AS EXPRESSLY SET FORTH IN THIS AGREEMENT. EXCEPT WITH RESPECT TO THE INDEMNIFICATION SPECIFICALLY PROVIDED IN SECTION 10 ABOVE, IN NO EVENT SHALL CYDEX'S TOTAL AGGREGATE LIABILITY FOR ALL CLAIMS ARISING OUT OF THIS AGREEMENT EXCEED [**] THE AMOUNTS PAID BY

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PROTEOLIX TO CYDEX PURSUANT TO **SECTION 4** (COMPENSATION) OF THIS AGREEMENT DURING THE [**] MONTH PERIOD IMMEDIATELY PRECEDING THE EVENT GIVING RISE TO LIABILITY. NO ACTION, REGARDLESS OF FORM, ARISING OUT OF OR RELAYED TO THIS AGREEMENT MAY BE BROUGHT BY [**] AFTER SUCH PARTY HAS KNOWLEDGE OF THE OCCURRENCE THAT GAVE RISE TO THE CAUSE OF SUCH ACTION.

12. MANAGEMENT OF LICENSED PATENTS.

- **12.1 Prosecution and Maintenance.** CyDex shall maintain, at its sole cost and expense and using reasonable discretion, the Licensed Patents set forth on *Exhibit A*. CyDex shall have the right to control the prosecution and maintenance of patent applications and the selection of countries where patent applications are filed related to the Licensed Patents.
- **12.2 Infringement by Third Parties.** If Proteolix becomes aware that a third party may be infringing a Licensed Patent, it will promptly notify CyDex in writing, providing all information available to Proteolix regarding the potential infringement. CyDex shall take whatever, if any, action it deems appropriate, in its sole discretion, against the alleged infringer. If CyDex elects to take action, Proteolix shall, at CyDex' request and expense, cooperate and shall cause its employees to cooperate with CyDex in taking any such action, including but not limited to, cooperating with the prosecution of any infringement suit by CyDex.

13. TERM AND TERMINATION.

- **13.1 Term.** The term of this Agreement (the "**Term**") shall commence on the Effective Date and shall continue in effect thereafter until the expiration of Proteolix' obligation to pay royalties under **Section 4.1(c)**, unless terminated earlier as set forth herein.
- 13.2 Termination for Cause. If either party should violate or fail to perform any material term or material covenant of this Agreement, then the non-breaching party may give written notice of such default to the breaching party. If the breaching party should fail to cure such default within thirty (30) days after the date of such notice, the non-breaching party shall have the right to terminate this Agreement by a second written notice (a "Notice of Termination") to the breaching party, such termination to be effective as of the date of such notice. Notwithstanding the above, failure to pay milestones or royalties as described in Section 4 above will result in termination of this Agreement immediately upon delivery of a Notice of Termination by CyDex to Proteolix. In addition, either party may terminate this Agreement immediately upon written notice to the other party in the event such other party makes an assignment for the benefit of creditors or has a petition in bankruptcy filed for or against it that is [**].
- **13.3 Termination by Proteolix.** Proteolix shall have the right at any time to terminate this Agreement in whole by giving CyDex at least [**] days prior written notice.
- 13.4 Effect of Expiration or Termination. Following the expiration or termination of this Agreement, except as otherwise provided in Section 4.1(c)(ii), all rights granted to Proteolix herein shall immediately terminate and, in the event of termination of this Agreement by Proteolix pursuant to Section 13.2, all rights granted to CyDex herein shall immediately

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terminate, and each party shall promptly return all relevant records and materials in its possession or control containing the other party's Confidential Information with respect to which the former party does not retain rights hereunder; *provided, however* that each party may retain one archival copy of such records and materials solely to be able to monitor its obligations that survive under this Agreement.

13.5 Survival. Notwithstanding any other provisions of this Agreement, any liability or obligation of either party to the other for acts or omissions prior to the termination or expiration of this Agreement shall survive the termination or expiration of this Agreement. Such termination or expiration shall not relieve either party from obligations that are expressly indicated to survive termination or expiration of this Agreement, nor shall any termination or expiration of this Agreement relieve Proteolix of its obligation to pay CyDex (a) royalties for all Product sold by Proteolix, its Affiliates or Sublicensees prior to the effective date of such expiration or termination, or (b) sums due in respect of CAPTISOL shipped prior to termination or expiration of this Agreement.

Sections 1 (Definitions); 2.1 (License Grants from CyDex to Proteolix); 2.2 (Grant of License from Proteolix to CyDex); 5 (Records; Reports; Audits); 7.4 (Product Recalls); 8 (Confidentiality); 9.4 (Disclaimer); 10 (Indemnification); 11 (Limitation of Liability); 13.4 (Effect of Termination); 13.5 (Survival); and 14 (General Provisions) shall survive termination or expiration of this Agreement; provided, however, that Section 2.2 (Grant of License from Proteolix to CyDex) shall not survive termination of this Agreement by Proteolix pursuant to Section 13.2 and Section 2.1 (License Grants from CyDex to Proteolix) shall not survive termination of this Agreement by CyDex pursuant to Section 13.2 or by Proteolix pursuant to Section 13.3. Proteolix's exercise of the license under Section 2.1 (if it survives termination) is subject to compliance with Proteolix's continued compliance with Section 4 (Compensation).

14. GENERAL PROVISIONS.

- **14.1 Non-Solicitation.** During the Term and for a period of [**] year thereafter, neither party shall solicit, induce, encourage or attempt to induce or encourage any employee of the other party to terminate his or her employment with such other party or to breach any other obligation to such other party. This section is not meant to encompass general solicitations such as may be found in newspaper advertisements and the like.
- **14.2 Relationship of Parties.** Each of the parties hereto is an independent contractor and nothing in this Agreement is intended or shall be deemed to constitute a partnership, agency, employer-employee or joint venture relationship between the parties. No party shall incur any debts or make any commitments for the other.

14.3 Compliance with Law.

(a) Proteolix agrees that use of the Licensed Patents by Proteolix, its Affiliates and Sublicensees, and the manufacture, handling, marketing, sale, distribution and use of Product will comply with all applicable international, federal, state and local laws, rules and regulations, including, but not limited to, import/export restrictions, laws, rules and regulations governing use and patent, copyright and trade secret protection.

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24.

(b) CyDex agrees the manufacture and supply of CAPTISOL to Proteolix (as applicable for Research Grade CAPTISOL, Clinical Grade CAPTISOL or Commercial Grade CAPTISOL, as the case may be) will comply with all applicable international, federal, state and local laws, rules and regulations, including, but not limited to, import/export restrictions, laws, rules and regulations governing use and patent, copyright and trade secret protection.

14.4 Arbitration.

- (a) Procedure. Except as otherwise expressly set forth in Section 14.4(b) below, any and all disputes or controversies arising out of or relating to this Agreement shall be settled and decided by binding arbitration. The arbitration shall be conducted in New York, New York by an arbitrator reasonably knowledgeable about the pharmaceutical industry and acceptable to CyDex and Proteolix. If CyDex and Proteolix cannot agree on a single arbitrator within ten (10) days after a demand for arbitration has been made, CyDex shall appoint an arbitrator, Proteolix shall appoint an arbitrator, the two (2) arbitrators shall appoint a third arbitrator, and the three (3) arbitrators shall hear and decide the issue in controversy. If either party fails to appoint an arbitrator within twenty (20) days after service of the demand for arbitration, then the arbitrator appointed by the other party shall arbitrate any controversy in accordance with this Section 14.4(a). Except as to the selection of arbitrators, the arbitration proceedings shall be conducted promptly and in accordance with the rules of the American Arbitration Association then in effect. The expenses of any arbitration, including the reasonable attorney fees of the prevailing party, shall be borne by the party deemed to be at fault or on a pro-rata basis should the arbitration conclude in a finding of mutual fault.
- **(b) Short-Form Arbitration.** Any dispute subject to short-form arbitration as provided in this Agreement shall be finally settled by binding arbitration conducted, in accordance with the rules of the American Arbitration Association then in effect, in New York, New York by a single arbitrator reasonably knowledgeable about the pharmaceutical industry and appointed in accordance with such rules. Such arbitrator shall make his or her determination on the basis of "baseball arbitration" principles. THE FOREGOING REMEDY SHALL BE EACH PARTY'S SOLE AND EXCLUSIVE REMEDY WITH RESPECT TO ANY SUCH DISPUTE. The expenses of any arbitration, including the reasonable attorney fees of the prevailing party, shall be borne by the party deemed to be at fault or on a pro-rata basis should the arbitration conclude in a finding of mutual fault. In each case, the parties and arbitrator shall use all diligent efforts to complete such arbitration within thirty (30) days after appointment of the arbitrator.
- (c) Confidentiality of Proceedings. All arbitration proceedings hereunder shall be confidential and the arbitrator(s) shall issue appropriate protective orders to safeguard each party's Confidential Information. Except as required by law, no party shall make (or instruct the arbitrator(s) to make) any public announcement with respect to the proceedings or decision of the arbitrator(s) without prior written consent of the other party.
- (d) Exceptions. Notwithstanding the foregoing, neither party shall be bound to follow the dispute resolution process described in this Section with respect to any dispute: (i) that primarily involves or relates to the scope or validity of the Licensed Patents; or (ii) for

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which interim equitable relief from a court is necessary to prevent serious and irreparable injury to a party.

- **14.5** Costs and Expenses. Except as otherwise expressly provided in this Agreement, each party shall bear all costs and expenses associated with the performance of such party's obligations under this Agreement.
- **14.6 Force Majeure.** Neither party shall be liable for failure to perform, or delay in the performance of, its obligations under this Agreement (other than payment obligations) when such failure or delay is caused by an event of *force majeure*; *provided, however*, that the affected party resumes performance hereunder as soon as reasonably possible following cessation of such *force majeure* event; and *provided further* that no such delay or failure in performance shall continue for more than three (3) months. For purposes of this Agreement, an event of *force majeure* means any event or circumstance beyond the reasonable control of the affected party, including but not limited to, war, insurrection, riot, fire, flood or other unusual weather condition, explosion, act of God, peril of the sea, strike, lockout or other industrial disturbance, sabotage, accident, embargo, injunction, act of governmental authority, compliance with governmental order on national defense requirements, or inability to obtain fuel, power, raw materials, labor, transportation facilities. If, due to any event of *force majeure*, either party shall be unable to fulfill its obligations under this Agreement (other than payment obligations), the affected party shall immediately notify the other party of such inability and of the period during which such inability is expected to continue. In the event that a delay or failure in performance by a party under this **Section 14.6** continues longer than three (3) months, the other party may terminate this Agreement in accordance with the terms and conditions of **Section 13.2**.
- **14.7 Notices.** Any notice, request, or communication under this Agreement shall be effective only if it is in writing and personally delivered; sent by certified mail, postage pre-paid; facsimile with receipt confirmed; or by nationally recognized overnight courier with signature required, addressed to the parties at the addresses stated below or such other persons and/or addresses as shall be furnished in writing by any party in accordance with this **Section 14.7**. Unless otherwise provided, all notices shall be sent:

If to CyDex, to:

CyDex, Inc. 10513 W. 84th Terrace Lenexa, KS 66214 **Attention: CEO** Fax: (913) 685-8856

If to Proteolix, to:

Proteolix, Inc. 225 Gateway Boulevard South San Francisco, CA 94080 **Attention: VP, Development** (Fax) 650-866-6351

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26.

If sent by facsimile transmission, the date of transmission shall be deemed to be the date on which such notice, request or communication was given. If sent by overnight courier, the next business day after the date of deposit with such courier shall be deemed to be the date on which such notice, request or communication was given. If sent by certified mail, the third business day after the date of mailing shall be deemed the date on which such notice, request or communication was given.

- **14.8** Use of Name. Neither party shall have any right, express or implied, to use in any manner the name or other designation of the other party or any other trade name or trademark of the other party for any purpose, except as may be required by applicable law or regulation.
- 14.9 Public Announcements. Except for such disclosure as is deemed necessary, in the reasonable judgment of a party, to comply with applicable laws or regulations, securities filings or the rules of the NYSE or NASDAQ, no announcement, news release, public statement, publication, or presentation relating to the existence of this Agreement, or the terms hereof, will be made without the other party's prior written approval, which approval shall not be unreasonably withheld. Notwithstanding the above, once the content and timing of a public announcement of the fact that the parties have entered into this Agreement has been agreed to between the parties and such announcement has been made, each party shall be free to disclose to third parties the fact that it has entered into the Agreement (including a description of the Field), but without disclosing the economic terms hereof, as well as any other information contained in said public announcement. In the event of a required public announcement, the party making such announcement shall provide the other party with a copy of the proposed text prior to such announcement sufficiently in advance of the scheduled release of such announcement to afford such other party a reasonable opportunity to review and comment upon the proposed text and the timing of such disclosure.
- **14.10 Governing Law.** This Agreement shall be governed by and construed in accordance with the laws of the State of New York (without giving effect to any conflicts of law principles that require the application of the law of a different state).
- **14.11 Entire Agreement; Amendment.** This Agreement and all Exhibits attached hereto or thereto contain the entire agreement of the parties relating to the subject matter hereof and supersede any and all prior and contemporaneous agreements, written or oral, between CyDex and Proteolix relating to the subject matter of this Agreement. This Agreement may not be amended unless agreed to in writing by both parties.
- **14.12 Binding Effect.** This Agreement shall be binding upon, and the rights and obligations hereof shall apply to the CyDex and the Proteolix and any successor(s) and permitted assigns. The name of a party appearing herein shall be deemed to include the names of such party's successors and permitted assigns to the extent necessary to carry out the intent of this Agreement.
- **14.13 Waiver.** The rights of either party under this Agreement may be exercised from time to time, singularly or in combination, and the exercise of one or more such rights shall not
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be deemed to be in waiver of any one or more of the other. No waiver of any breach of a term, provision or condition of this Agreement shall be deemed to have been made by either party unless such waiver is addressed in writing and signed by an authorized representative of that party. The failure of either party to insist upon the strict performance of any of the terms, provisions or conditions of this Agreement, or to exercise any option contained in this Agreement, shall not be construed as a waiver or relinquishment for the future of any such term, provision, condition or option or the waiver or relinquishment of any other term, provision, condition or option.

- **14.14 Severability.** If a final judicial determination is made that any provision of this Agreement is unenforceable, this Agreement shall be rendered void only to the extent that such judicial determination finds such provisions unenforceable, and such unenforceable provisions shall be automatically reconstituted and become a part of this Agreement, effective as of the date first written above, to the maximum extent they are lawfully enforceable.
- **14.15 Assignment.** Neither party may assign its rights or delegate its obligations under this Agreement, in whole or in part, by operation of law or otherwise, to any third party without the prior written consent of the other party, which consent shall not be unreasonably withheld. Notwithstanding the foregoing, either party may assign its rights and delegate its obligations under this Agreement to an Affiliate or to a third party successor, whether by way of merger, sale of all or substantially all of its assets, sale of stock or otherwise, without the other party's prior written consent. As a condition to any permitted assignment hereunder, the assignor must guarantee the performance of any assignee to the terms and obligations of this Agreement. Any assignment not in accordance with this **Section 14.15** shall be void.
- **14.16 Headings.** The descriptive headings of this Agreement are for convenience only, and shall be of no force or effect in construing or interpreting any of the provisions of this Agreement.
- **14.17** Counterparts. This Agreement may be executed in two counterparts, each of which shall constitute an original document, but both of which shall constitute one and the same instrument.

* * *

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28.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

CYDEX, INC.

By: /s/ John M. Siebert

Name: John M. Siebert Title: Chairman & CEO

PROTEOLIX, INC.

By: /s/ Susan M. Molineaux

Name: Susan M. Molineaux

Title: CSO

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EXHIBIT A

LICENSED PATENTS

PATENT 1: "Derivatives of Cyclodextrins Exhibiting Enhanced Aqueous Solubility and the Use Thereof"

| Country | Filing Date | Serial No. | Patent No. | Expiration Date |
|--------------------|-------------|----------------|------------|--------------------|
| United States | 01/23/90 | 07/469087 | 5,134,127 | 01/23/10 |
| PCT | 01/23/70 | 077 109007 | 5,151,127 | 01/23/10 |
| (U.S. 5,134,127) | 01/22/91 | PCT/US91/00326 | W091/11172 | |
| Australia | 01/22/91 | 72364/91 | 646020 | 01/22/07 |
| EPO | 01/22/91 | 91903891.9 | 0512050 | 01/22/11 |
| Austria | 01/22/91 | 91903891.9 | E-170742 | 01/22/11 |
| Belgium | 01/22/91 | 91903891.9 | 0512050 | 01/22/11 |
| France | 9/11/98 | 91903891.9 | 0512050 | 01/22/11 |
| Germany | 01/22/91 | 69130165.4 | 69130165 | 01/22/11 |
| Great Britain (UK) | 01/22/91 | 91903891.9 | 0512050 | 01/22/11 |
| Greece | 11/30/98 | 980402865 | 3028691 | 01/23/11 |
| Italy | 12/01/98 | 70988BE/98 | 0512050 | 01/22/11 |
| Luxembourg | 01/22/91 | 91903891.9 | 0512050 | 01/22/11 |
| Netherlands | 12/03/98 | 91903891.9 | 0512050 | 01/22/11 |
| Sweden | 01/22/91 | 91903891.9 | 0512050 | 01/22/11 |
| Switzerland | 11/10/98 | 91903891.9 | 0512050 | 01/22/11 |
| Korea | 07/22/92 | 92-701734 | 166088 | 01/22/11 |
| Canada | 01/22/91 | 2,074,186 | 2,074,186 | 01/22/11 |
| Russia | 07/22/92 | 5052811.04 | 2099354 | 01/22/11 |
| Japan | 01/22/91 | 3-504051 | 2722277 | 1/22/11 |

^{*} Awaiting confirmation documents

^{[**] =} Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

PATENT 2: CIP of 5,134,127 — "Derivatives of Cyclodextrins Exhibiting Enhanced Aqueous Solubility and the Use Thereof"

| Country | Filing Date | Serial No. | Patent No. | Expiration Date |
|---------------------------|-------------|----------------|------------|--------------------|
| United States | 07/27/92 | 07/918,702 | 5,376,645 | 01/23/10 |
| PCT | | · | | |
| (U.S. 5,376,645) | 07/26/93 | PCT/US93/06880 | W094/02518 | |
| Australia | 07/26/93 | 47799/93 | 672814 | 07/26/13 |
| EPO | 07/26/93 | 93918302.6 | 620828 | 07/26/13 |
| Austria | 07/26/93 | 93918302.6 | E 217325 | 07/26/13 |
| Belgium | 07/26/93 | 93918302.6 | 620828 | 07/26/13 |
| Denmark | 07/26/03 | 93918302.6 | 620828 | 07/31/13 |
| Djibouti | 05/08/02 | 93918302.6 | 620828 | 05/08/22 |
| France | 07/26/93 | 93918302.6 | 620828 | 07/31/13 |
| Germany | 07/26/93 | 69331900 | 69331900 | 07/31/13 |
| Great Britain (UK) | 05/17/02 | 93918302.6 | 620828 | 07/26/13 |
| Greece | 07/26/93 | 93918302.6 | 3040489 | 07/26/13 |
| Ireland | 07/26/03 | 93918302.6 | 620828 | 07/31/13 |
| Italy | 07/26/03 | 93918302.6 | 620828 | 07/26/13 |
| Luxembourg | 07/26/03 | 93918302.6 | 620828 | 07/26/13 |
| Monaco | 07/26/03 | 93918302.6 | 620828 | 07/26/13 |
| Netherlands | 07/26/03 | 93918302.6 | 620828 | 07/26/13 |
| Portugal | 07/26/93 | 93918302.6 | 620828 | 07/26/13 |
| Spain | 07/26/93 | 93918302.6 | 620828 | 07/26/13 |
| Sweden | 07/26/93 | 93918302.6 | 620828 | 07/26/13 |
| Switzerland/Liechtenstein | 07/26/93 | 93918302.6 | 620828 | 07/26/13 |
| Korea | 03/23/94 | 94-700951 | 279111 | 07/26/13 |
| Canada | 07/26/93 | 2,119,154 | 2,119,154 | 07/26/13 |
| Japan | 07/26/93 | 6-504678 | 3393253 | 07/26/13 |
| Russia | 07/26/93 | 94028890/04 | 2113442 | 07/26/13 |
| Georgia | 03/17/95 | 691/01-95 | 1649 | 07/26/13 |

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2.

| Country | Filing Date | Serial No. | Patent No. | Expiration Date |
|--------------|-------------|---------------|--------------|--------------------|
| Country | Filing Date | Seriai No. | r aieni 1vo. | Date |
| Armenia | 07/26/93 | 96237 | 822 | 07/22/13 |
| Kyrgyzstan | 08/09/96 | 960481.1 | 333 | 05/10/16 |
| Moldova | 08/08/96 | 960306/PCT | 1813 | 07/26/13 |
| Tajikistan | 07/26/93 | 96000377 | 275 | 07/26/13 |
| Turkmenistan | 08/08/96 | 393 | 430 | 07/26/13 |
| Uzbeckistan | 09/15/94 | IHAP9400808.2 | 5799 | 04/28/19 |

^{*} Awaiting confirmation documents

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EXHIBIT B

SPECIFICATIONS — Commercial Grade and Clinical Grade CAPTISOL

| Test Appearance | Specification White to off-white solid essentially free from foreign matter | Test Method CY-VI-005 |
|--|--|--------------------------|
| Identification (IR) | Spectrum is consistent with the SBECD standard | CY-IR-100 |
| Sodium Identity | Sodium identity tests are positive | CY-PR-200 |
| Solution Clarity | A 30% w/v solution in water is clear, colorless and essentially free from particles of foreign matter | CY-VI-002 |
| Average Degree of Substitution (CE) | 6.0-7.1 | CY-CE-603 |
| Solution pH | The pH of a 30% w/v solution in water is within the range of $5.4 - 6.8$ | CY-PH-100 |
| β-cyclodextrin Content | Maximum 0.2% | CY-IC-203 |
| Sodium Chloride | Maximum 0.2% | CY-IC-303 |
| 1,4-Butane Sultone | Maximum 1 ppm | CY-GC-104 |
| Water (by KF) | Maximum 10.0% | CY-KF-100 |
| Heavy Metals | Maximum 10 ppm | CY-HM-222 |
| Specific Rotation (anhydrous basis) | For information only | CY-SR-163 |
| Assay (anhydrous basis) | Minimum 95% | CY-LC-903 |
| Bacterial Endotoxins | Not more than 50 EU/g | CY-LAL-002 |
| Microbiology | | |
| Aerobic microorganisms Escherichia coli Salmonella species Molds & Yeasts | 1000 CFU/g Maximum Meets test requirements for absence Meets test requirements for absence For Information Only | CY-MB-105 |

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EXHIBIT C

PURCHASE PRICE FOR CAPTISOL

- **1. Clinical Grade CAPTISOL:** US\$[**] per kg, until such time as Proteolix orders more than [**] of Clinical Grade CAPTISOL, at which time the price of Clinical Grade CAPTISOL will [**] US\$[**] per kg.
- **2. Commercial Grade CAPTISOL:** The price of Commercial Grade CAPTISOL shall be determined pursuant to the following table, but subject to adjustment pursuant to **Section 4.2(a)** of the Agreement.

| Supplied CAPTISOL | Cost |
|------------------------|---------------|
| (Metric Tons Per Year) | (US\$ per kg) |
| [**] | [**] |
| [**] | [**] |
| [**] | [**] |
| [**] | [**] |

3. Research Grade CAPTISOL:

| Catalog No. | Package Size | Price (USD) |
|-------------|---------------|-------------|
| NC-CAP-103 | 100 grams | [**] |
| NC-CAP-105 | 500 grams | [**] |
| NC-CAP-106 | 1 kilogram | [**] |
| NC-CAP-107 | 5 kilograms | [**] |
| | > 5 kilograms | [**] |

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EXHIBIT D

DOSING MATRIX FOR IN-VIVO PRE-CLINICAL STUDIES

The following eight tables specify the maximum allowable CAPTISOL doses for intravenous, intramuscular, intraperitoneal, subcutaneous and oral routes of administration. These doses do not necessarily represent the highest safe dosing conditions but represent the current knowledge base. For many of these routes, available data is limited to only a few studies and species. Therefore, some doses have been based on assumptions and extrapolation from those studies and species. Adaptive responses may still be present at some of the doses identified in these tables; however, toxic responses affecting organ function should not be elicited at these doses. As additional data becomes available, these tables may be revised.

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CONTRACTUAL PROVISIONS ATTACHMENT

These pages contain mandatory contractual provisions and must be attached to or incorporated in all copies of the foregoing Agreement.

Captisol® Dosing Matrix In-Vivo Preclinical Studies

| BACKGROUND INFORMATION FOR USING THE CAPTISOL® DOSING MATRIX | 5 |
|---|----|
| Table 1: Allowable IV Bolus Captisol® Doses by Duration of Study | 6 |
| Table 2: Allowable IV Infusion Captisol® Doses by Duration of Study | 7 |
| Table 3: Allowable IM Captisol® Doses by Duration of Study | 8 |
| Table 4: Allowable IP Captisol® Doses by Duration of Study | 9 |
| Table 5: Allowable SC Injection Captisol® Doses by Duration of Study | 10 |
| Table 6: Allowable SC Implantable Device Captisol® Doses by Duration of Study | 11 |
| Table 7: Allowable Oral Solution Captisol® Doses by Duration of Study | 12 |
| Table 8: Allowable Oral Solid Captisol® Doses by Duration of Study | 13 |
| Appendix A | 14 |
| Parenteral Formulation Protocol | 16 |
| Oral Solution Formulation Protocol | 15 |
| Oral Solid Formulation Protocol | 17 |
| Appendix B | 18 |
| Results Summary | 1 |
| | |

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BACKGROUND INFORMATION FOR USING THE CAPTISOL® DOSING MATRIX

The enclosed tables contain summary dosing information for Captisol® by different routes for various species. There is one summary page for each route, which contains information for mice, rats, rabbits, dogs, and non-human primates. Routes of administration discussed include intravenous, subcutaneous, intramuscular, intraperitoneal and oral. For intravenous studies, an extensive database is available for the rat and dog, with less information being available for the mouse, rabbit and monkey. For other routes of administration data are limited to rats, rabbits and monkeys for subcutaneous administration, rats for intramuscular administration, and rats and dogs for oral administration. Because data is limited for some routes and species, extrapolations were sometimes used in determining the allowable dose. In other instances where data is limited, CyDex requires consultation prior to dosing.

In each case the allowable dose is the Captisol® dose that can be administered without prior consultation and/or specific approval of CyDex. The doses listed are based on data from studies conducted with Captisol® or are an extrapolation from those studies. At the doses listed in the matrix adaptive responses may be present, but toxic effects would not be anticipated. In addition to considering the allowable Captisol® dose, one must be cognizant of the two variables (concentration and dose volume) determining the dose. In using the matrix table, these two variables may be adjusted to best fit the needs of the client. However, the allowable Captisol® dose and allowable Captisol® concentration may not be exceed without prior approval from CyDex. The concentration listed on the matrix is based on the concentration used in the majority of the toxicity studies conducted with Captisol®. As implied above, lesser concentrations may be administered as long as the total dose does not exceed the approved limit set forth in the Dosing Matrix.

With respect to dose volumes, those listed in the Captisol® dosing matrix represent volumes that are recognized as appropriate for the species and route (based on published literature). CyDex recognizes that individual laboratories may have established different dosing volumes for use in a particular species for a given route. In those instances, CyDex does not wish to restrict the laboratory to the volumes listed in the matrix table. However without prior consultation and permission of CyDex, the total Captisol® dose administered must remain at or below the dose listed in the dosing matrix for the route and species. For example, in the rat a single intravenous bolus dose of 4000 mg/kg can be administered using a dosing volume of 13.3 mL/kg with a Captisol® concentration of 300 mg/mL (30% w/v). If your laboratory routinely uses a higher dose volume, say 15 ml/kg for a single intravenous bolus dose in rats, then the concentration would need to be adjusted to 267 mg/mL (26.7% w/v) for a 4000 mg/kg dose.

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- NOTES:1) The allowable dose may not be exceeded without CyDex approval. These doses and the 30% w/v concentration do not necessarily represent the highest safe dosing conditions. However, they are the highest values to which CyDex has given limited approval for use.
 - 2) If Captisol concentration used is < 30% w/v, then the volume administered may be increased accordingly, but the dose delivered may not exceed that granted under this limited approval.

Table 1: Allowable IV Bolus Captisol® Doses by Duration of Study

| Example Volume ² | | F 16 4 | | Daily Allowable | | |
|-----------------------------|----------|--|----------------------|-----------------------|--------------|-----------------|
| IV Bolus | - · | (based on use of 30% w/v Captisol delivering indicated dose) | | Example Concentration | | Captisol® Dose1 |
| Species | Duration | (mL/dose) | (mL/kg) ² | (% w/v) | (mg/mL) | (mg/kg) |
| | single | | | | | |
| mouse | dose | 0.27 | 13.33 | | | 4000 |
| | 14 days | 0.20 | 10.00 | | | 3000 |
| | 1 month | 0.07 | 3.33 | | | 1000 |
| | single | | | | | |
| rat | dose | 3.33 | 13.33 | | | 4000 |
| 141 | 14 days | 2.50 | 10.00 | | | 3000 |
| | 1 month | 0.83 | 3.33 | | | 1000 |
| | | 0.83 | 3.33 | Thal | h≟alla aa4 | 1000 |
| 11.5 | single | 25.00 | 10.00 | | highest | 2000 |
| rabbit | dose | 25.00 | 10.00 | | tion granted | 3000 |
| | 14 days | 16.67 | 6.67 | | is limited | 2000 |
| | 1 month | 8.33 | 3.33 | | is 30% w/v | 1000 |
| | | | | (300 m | g/mL).1 | |
| | single | | | | | |
| dog | dose | 100.00 | 10.00 | | | 3000 |
| C | 14 days | 66.67 | 6.67 | | | 2000 |
| | 1 month | 50.00 | 5.00 | | | 1500 |
| | single | | 2.2.2 | | | |
| non-human primate | dose | 50.00 | 10.00 | | | 3000 |
| non numum primute | 14 days | 33.33 | 6.67 | | | 2000 |
| | - | | | | | 1500 |
| | 1 month | 25.00 | 5.00 | | | 1300 |

- a conversions between mL/dose and mL/kg assumes mouse weight of 0.02 kg
- a conversions between mL/dose and mL/kg assumes rat weight of 0.25 kg
- a conversions between mL/dose and mL/kg assumes rabbit weight of 2.5 kg
- a conversions between mL/dose and mL/kg assumes dog weight of 10 kg
- a conversions between mL/dose and mL/kg assumes monkey weight of 5 kg

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Page 6 07/17/00

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NOTES:

- 1) The allowable dose may not be exceeded without CyDex approval. These doses and the 30% w/v concentration do not necessarily represent the highest safe dosing conditions. However, they are the highest values to which CyDex has given limited approval for use.
- 2) If Captisol concentration used is < 30% w/v, then the volume administered may be increased accordingly, but the dose delivered may not exceed that granted under this limited approval.

The current continuous intravenous infusion dosing matrix only provides information for 24-hour continuous infusion with the Captisol concentration limited to 30% (300 mg/mL) and the maximum dose limited to that listed in the dosing matrix.

Table 2: Allowable IV Infusion Captisol® Doses by Duration of Study

| | | | Example Volume ² | | | | Daily A | llowable |
|--------------|--|-------------|-----------------------------|---------------|---------------|---------------------|-------------|--------------|
| IV Continuou | IV Continuous Infusion (based on use 0130% w/v Captisol delivering indicated dose) | | Concentration | Captisol®Dose | | | | |
| Species | Duration | mL/dose/HR) | (mL/dose/DAY) | (mL/kg/HR)a | (roL/kg/DAY)a | (% w/v) (mg/mL) | (mg/kg/HR)b | (mg/kg/DAY)b |
| mouse | 14 days | 0.01 | 0.20 | 0.42 | 10.00 | The highest | 125 | 3000 |
| rat | 14 days | 0.10 | 2.50 | 0.42 | 10.00 | concentration | 125 | 3000 |
| rabbit | 14 days | 1.04 | 25.00 | 0.42 | 10.00 | granted under this | 125 | 3000 |
| dog | 14 days | 4.20 | 100.00 | 0.42 | 10.00 | limited approval is | 125 | 3000 |
| non-human | 14 days | 2.08 | 50.00 | 0.42 | 10.00 | 30% w/v (300 | 125 | 3000 |
| primate | | | | | | mg/mL).1 | | |

FOOTNOTES:

- a conversions between mi./dose and mL/kg assumes mouse weight of 0,02 kg
- a conversions between mL/dose and mL/kg assumes rabbit weight of 2,5 kg
- a conversions between mi./dose and mL/kg assumes monkey weight of 5 kg
- a conversions between triL/dose and mL/kg assumes rat weight of 0.25 kg
- a conversions between mL/dose and mL/kg assumes dog weight of 10 kg
- b doses are mg/kg/day except for continuous infusion which is reported as both mg/kg/hour and mg/kg/day

CyDex recognizes that continuous IV infusion protocols vary greatly from study to study and that when designing continuous IV infusion protocols several variables must be considered, such as infusion rate, infusion duration, use of a bolus plus infusion, etc. The doses permitted under this limited agreement are based upon a protocol that requires 24-hour continuous IV infusion per the dosing matrix.

For all other intravenous infusion study designs we require that CyDex be consulted for approval prior to initiation of the study.

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Page 7 07/17/00

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NOTES:

- 1) The allowable dose may not be exceeded without CyDex approval. These doses and the 30% w/v concentration do not necessarily represent the highest safe dosing conditions. However, they are the highest values to which CyDex has given limited approval for use.
- 2) If Captisol concentration used is < 30% w/v, then the volume administered may be increased accordingly, but the dose delivered may not exceed that granted under this limited approval.

Table 3: Allowable IM Captisol® Doses by Duration of Study

| Intramuscular | | Exa (based on use of 30% w/v | Example Co | Daily Allowable Captisol® Dose ¹ | | |
|---------------|--------------------|---------------------------------|------------|--|---------|---------|
| Species | Duration | (mL/dose) | (mL/kg) | (% w/v) | (mg/mL) | (mg/kg) |
| mouse | single | * | * | * | * | * |
| | dose | * | * | * | * | * |
| | 14 days 1 month | * | * | * | * | * |
| rat | single | * | * | * | * | * |
| | dose | * | * | * | * | * |
| | 14 days 1 month | * | * | * | * | * |
| rabbit | single | * | * | * | * | * |
| | dose | * | * | * | * | * |
| | 14 days 1 month | * | * | * | * | * |
| dog | single | * | * | * | * | * |
| - | dose | * | * | * | * | * |
| | 14 days 1 month | * | * | * | * | * |
| non-human | single | * | * | * | * | * |
| primate | dose | * | * | * | * | * |
| | 14 days 1 month | * | * | * | * | * |

^{*}Limited to no data exists for these species. Contact CyDex for approval of dosing conditions.

FOOTNOTES:

- a conversions between mL/dose and mL/kg assumes mouse weight of 0.02 kg
- a conversions between mL/dose and mL/kg assumes rat weight of 0.25 kg
- a conversions between mL/dose and mL/kg assumes rabbit weight of 2.5 kg
- a conversions between mL/dose and mL/kg assumes dog weight of 10 kg
- a conversions between mL/dose and mL/kg assumes monkey weight of 5 kg
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Page 8



NOTES:

- 1) The allowable dose may not be exceeded without CyDex approval. These doses and the 30% w/v concentration do not necessarily represent the highest safe dosing conditions. However, they are the highest values to which CyDex has given limited approval for use.
- 2) If Captisol concentration used is < 30% w/v, then the volume administered may be increased accordingly, but the dose delivered may not exceed that granted under this limited approval.

Table 4: Allowable IP Captisol ® Doses by Duration of Study

| | | Exa | | Daily Allowable | | |
|-----------|--------------------|--|---------|-----------------|-----------------|---------|
| Intraperi | | (based on use of 30% w/v Captisol delivering indicated dose) | | Example Co | Captisol® Dose1 | |
| Species | Duration | (mL/dose) | (mL/kg) | (% w/v) | (mg/mL) | (mg/kg) |
| mouse | single | * | * | * | * | * |
| | dose | * | * | * | * | * |
| | 14 days 1 month | * | * | * | * | * |
| rat | single | * | * | * | * | * |
| | dose | * | * | * | * | * |
| | 14 days 1 month | * | * | * | * | * |
| rabbit | single | * | * | * | * | * |
| | dose | * | * | * | * | * |
| | 14 days 1 month | * | * | * | * | * |
| dog | single | * | * | * | * | * |
| • | dose | * | * | * | * | * |
| | 14 days 1 month | * | * | * | * | * |
| non-human | single | * | * | * | * | * |
| primate | dose | * | * | * | * | * |
| | 14 days 1 month | * | * | * | * | * |

^{*}Limited to no data exists for these species. Contact CyDex for approval of dosing conditions.

FOOTNOTES:

- a conversions between mL/dose and mL/kg assumes mouse weight of 0.02 kg
- a conversions between mL/dose and mL/kg assumes rat weight of 0.25 kg
- a conversions between mL/dose and mL/kg assumes rabbit weight of 2.5 kg
- a conversions between mL/dose and mL/kg assumes dog weight of 10 kg
- a conversions between mL/dose and mL/kg assumes monkey weight of 5 kg
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Page 9



- NOTES: 1) The allowable dose may not be exceeded without CyDex approval. These doses and the 30% w/v concentration do not necessarily represent the highest safe dosing conditions. However, they are the highest values to which CyDex has given limited approval for use.
 - 2) If Captisol concentration used is < 30% w/v, then the volume administered may be increased accordingly, but the dose delivered may not exceed that granted under this limited approval.

Table 5: Allowable SC Injection Captisol®Doses by Duration of Study

| | | | | nple Volume ² | | | |
|----------------------|--|--|--|--------------------------------|---|---|--|
| | Subcutaneous Injection | | (based on use of 30% w/v Captisol delivering indicated dose) | | Example Concentration | | Daily Allowable Captisol® Dose ¹ |
| Species | | Duration | (mL/dose) | (mL/kg) | (% w/v) | (mg/mL) | (mg/kg) |
| mouse | 1 site possible | single dose 14 days | 0.27 0.20 | 13.33 10.00 | | | 4000 3000 |
| rat | 1 site possible | 1 month single dose 14 days 1 month | 0.07 3.33 2.50 0.83 | 3.33 13.33 10.00 3.33 | | | 1000 4000 3000 1000 |
| rabbit | 1 site possible | single dose 14 days 1 month | 25.00 16.67 8.33 | 10.00 6.67 3.33 | concen grante this li approva w/v | ighest tration d under mited dl is 30% (300 nL). ¹ | 3000 2000 1000 |
| dog | 3 sites of 2 ml/kg each 3 sites of 2 ml/kg each 3 sites of 1.67 ml/kg each | single dose 14 days 1 month | 20.00 20.00 16.67 | 6.00 6.00 5.00 | J | Ź | 1800 1800 1500 |
| non-human primate | 2 sites of 5 ml/kg each 2 sites of 3.33 ml/kg each 2 site of 2.5 ml/kg each | single dose 14 days 1 month | 25.00 16.67 12.50 | 10.00 6.66 5.00 | | | 3000 2000 1500 |
| | . *** | | | | | | |

- a conversions between mL/dose and mL/kg assumes mouse weight of 0.02 kg
- a conversions between mL/dose and mL/kg assumes rat weight of 0.25 kg
- a conversions between mL/dose and mL/kg assumes rabbit weight of 2.5 kg
- a conversions between mL/dose and mL/kg assumes dog weight of 10 kg
- a conversions between mL/dose and mL/kg assumes monkey weight of 5 kg

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Page 10 07/17/00

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- NOTES: 1) The allowable dose may not be exceeded without CyDex approval. These doses and the 30% wlv concentration do not necessarily represent the highest safe dosing conditions. However, they are the highest values to which CyDex has given limited approval for use.
 - 2) If Captisol concentration used is < 30% w/v, then the volume administered may be increased accordingly, but the dose delivered may not exceed that granted under this limited approval.

Table 6: Allowable SC Implantable Device Captisol® Doses by Duration of Study

| | | | | ple Volume ² | | |
|----------------------|---|------------------------------|-------------------------|-------------------------|--|-------------------|
| | | | | of 30% w/v Captisol | Example | Daily Allowable |
| | Subcutaneous Implantable Device | | delivering | gindicated dose) | Concentration | Captisol®Dose1 |
| Species | MiniPumps | Duration | (mL/dose) | (mL/kg) | (% w/v) (mg/ml | L) (mg/kg) |
| mouse | 1 pump @ 1 uL/hr = 0.024 mL/day | 7 days | 0.024 | 1.20 | The highest | 360 |
| | 1 pump (a) $0.5 \text{ uL/hr} = 0.012 \text{ mL/day each}$ | 14 days | 0.012 | 0.60 | concentration | 180 |
| | 1 pump @ $0.25 \text{ uL/hr} = 0.006 \text{ mL/day}$ | 1 month | 0.006 | 0.30 | granted under th | is 90 |
| | | | | | limited approval 30% w/v (300 mg/mL). ¹ | is |
| rat | 2 pumps @ 10 uL/hr = 0.24 mL/day each 2 pumps @ 5 uL/hr = 0.12 mL/day each 2 pumps @ 2.5 uL/hr = 0.06 mL/day each | 7 days 14 days 1 month | 0.480 0.240 0.120 | 1.92 0.96 0.48 | | 576 288 144 |
| rabbit | * | * | * | * | * | * |
| dog | * | * | * | * | * | * |
| non-human primate | * | * | * | * | * | * |

^{*} Limited to no data exists for these species. Contact CyDex for approval of dosing conditions.

- a conversions between mL/dose and mL/kg assumes mouse weight of 0.02 kg
 a conversions between mL/dose and mL/kg assumes rat weight of 0.25 kg
 a conversions between mL/dose and mL/kg assumes rabbit weight of 2.5 kg
 a conversions between mL/dose and mL/kg assumes dog weight of 10 kg
- a conversions between mL/dose and mL/kg assumes monkey weight of 5 kg

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Page 11 07/17/00

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- NOTES: 1) The allowable dose may not be exceeded without CyDex approval. These doses and the 30% w/v concentration do not necessarily represent the highest safe dosing conditions. However, they are the highest values to which CyDex has given limited approval for use.
 - 2) If Captisol concentration used is $< 30^{\circ}$ /0 w/v, then the volume administered may be increased accordingly, but the dose delivered may not exceed that granted under this limited approval.

Table 7: Allowable Oral Solution Captisol® Doses by Duration of Study

| Oral Solution (Ga | | (based on use of 3 delivering in | Volume ² 30% w/v Captisol dicated dose) | | oncentration | Daily Allowable Captisol® Dose ¹ |
|-------------------|-----------------------------------|-------------------------------------|--|--------------------------|---|--|
| Species | Duration | (mL/dose) | (mL/kg) | (% w/v) | (mg/mL) | (mg/kg) |
| mouse | single dose 14 days 1 month | 0.33 0.27 0.13 | 16.67 13.33 6.67 | granted unde approval | concentration er this limited is 30% w/v g/mL). ¹ | 5000 4000 2000 |
| rat | single dose 14 days 1 month | 4.17 3.33 1.67 | 16.67 13.33 6.67 | , | , | 5000 4000 2000 |
| rabbit | single dose 14 days 1 month | * * * | * * * | * * * | * * * | * * * |
| dog | single dose 14 days 1 month | * * * | * * * | * * | * * * | * * |
| non-human primate | single dose 14 days 1 month | * * * | * * * | * * | * * * | * * * |

^{*}Limited to no data exists for these species. Contact CyDex for approval of dosing conditions.

- a conversions between mL/dose and mL/kg assumes mouse weight of 0.02 kg
- a conversions between mL/dose and mL/kg assumes rat weight of 0.25 kg
- a conversions between mL/dose and mL/kg assumes rabbit weight of 2.5 kg
- a conversions between mL/dose and mL/kg assumes dog weight of 10 kg
- a conversions between mL/dose and mL/kg assumes monkey weight of 5 kg

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Page 12 07/17/00

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NOTES: 1) The allowable dose may not be exceeded without CyDex approval. At this time, limited data exists for the oral dosing of solid Captisol. Please contact CyDex for approval of dosing conditions.

Table 8: Allowable Oral Solid Captisol® Doses by Duration of Study

| Oral Solid | | Examp | le Formulation | Example Dosage Forms | Daily Allowable Captisol® Dose |
|-------------------|----------------|-----------|-------------------|---|-----------------------------------|
| Species | Duration | (mg/dose) | (Number of Doses) | | (mg/kg) |
| mouse | single dose | * | * | Powders | * |
| | 14 days | * | * | Capsules | * |
| | 1 month | * | * | Tablets | * |
| rat | single dose | * | * | | * |
| | 14 days | * | * | | * |
| | 1 month | * | * | | * |
| rabbit | single dose | * | * | At this time, limited data exists for the oral | * |
| | 14 days | * | * | dosing of solid Captisol. | * |
| | 1 month | * | * | Please contact CyDex for approval of dosing conditions. | * |
| dog | single dose | * | * | | * |
| _ | 14 days | * | * | | * |
| | 1 month | * | * | | * |
| non-human primate | single dose | * | * | | * |
| • | 14 days | * | * | | * |
| | 1 month | * | * | | * |

^{*}Limited to no data exists for these species. Contact CyDex for approval of dosing conditions.

FOOTNOTES:

CyDex Inc. 12980 Metcalf Ave., Suite 470, Overland Park, KS 66213 • (913) 685-8850 • FAX (913) 685-8856 • E-mail: CDInfo@cydexinc,com*Version 1*,

Page 13 07/17/00

a — conversions between mL/dose and mL/kg assumes mouse weight of 0.02

a — conversions between mL/dose and mL/kg assumes rat weight of 0.25 kg

a — conversions between mL/dose and mL/kg assumes rabbit weight of 2.5 kg

a — conversions between mL/dose and mL/kg assumes dog weight of 10 kg

a — conversions between mL/dose and mL/kg assumes monkey weight of 5 kg

^{[**] =} Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.



Appendix A

[**] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

CyDex Inc. 12980 Metcalf Ave., Suite 470, Overland Park, KS 66213 \bullet (913) 685-8850 \bullet FAX (913) 685-8856 \bullet E-mail: CDInfo@cydexinc,com $Version\ I$,



Oral Solution Formulation Protocol

| CyDex Protocol Tracking form | | Protocol # | | | | |
|---|--|---|---|--|--|--|
| Title of Study: | | | | | | |
| Purpose: | | | | | | |
| Animal: (include species, age, and | d weight) | | | | | |
| Study Design | | | | | | |
| Formulation | Drug Exposure (optional) | Captisol Exposure | # of Animals | | | |
| Volume Doses (ml/kg) per Day | mg/ml mg/kg mg/kg/day | mg/ml mg/kg mg/kg/day | Male Female | | | |
| | | | | | | |
| Route: | | | | | | |
| Dosing Regine: | | | | | | |
| Vehicle: | | | | | | |
| Examination: (check all that apply | y) | | | | | |
| ☐ Clinical Observation ☐ Food Consumption ☐ Ophthalmology ☐ Organ Weight ☐ Others | ☐ Body Weight ☐ Electrocardiograms ☐ Urinalysis ☐ Necropsy | ☐ Clinical Chemis☐ Toxicokinetics☐ Hematology☐ Microscopy | stry | | | |
| Performing Laboratory: | | | | | | |
| Dosing Schedule: | | | | | | |
| Expected Report Submission: | | | | | | |
| GLP: This study | be conducted in accordance | with GLP standards. (will or will not) | | | | |
| Necessary amount of Captisol nec | eded for study: | | | | | |
| [**] = Certain confidential info the Securities and Excha | ormation contained in this document, ma ange Commission pursuant to Rule 24b- | arked by brackets, has been omitted and 2 of the Securities Exchange Act of 19 | d filed separately with 34, as amended. | | | |
| CyDex Inc. 12980 Metcalf Ave., S CDInfo@cydexinc,comVersion 1, | Suite 470, Overland Park, KS 66213 • (9 | 13) 685-8850 • FAX (913) 685-8856 • | E-mail: | | | |



Parenteral Formulation Protocol

| CyDex Protocol Tracking form | | | | Protocol # | | | | | |
|---|------------------|--|------------------|---|--------------|---------------|------------------|--------------|--------|
| Title of Study: | | | | | | | | | |
| Purpose: | | | | | | | | | |
| Animal: (include spe | cies, age, and | l weight) | | | | | | | |
| Study Design | | | | | | | | | |
| Formulation | 1 | Dı | rug Exposure (op | otional) | | Captisol Expo | sure | # of Animals | |
| Volume (ml/kg) | Doses per Day | mg/ml | mg/kg | mg/kg/day | mg/ml | mg/kg | mg/kg/day | Male | Female |
| Route: | | | | | | | | | |
| Duration | | | | | | | | | |
| Injection Speed: | | | | | | | | | |
| Injection Volume | | | | | | | | | |
| Vehicle: | | | | | | | | | |
| Examination: (check | all that apply | <i>y</i>) | | | | | | | |
| ☐ Clinical Observation ☐ Food Consumption ☐ Ophthalmology ☐ Organ Weight ☐ Others | | ☐ Body Weight ☐ Electrocardiograms ☐ Urinalysis ☐ Necropsy | | ☐ Clinical Chemistry ☐ Toxicokinetics ☐ Hematology ☐ Microscopy | | | | | |
| Performing Laborato | ry: | | | | | | | | |
| Dosing Schedule: | | | | | | | | | |
| Expected Report Sub | mission: | | | | | | | | |
| GLP: This study | | | be conducted | in accordance | with GLP st | andards. (w | ill or will not) | | |
| Necessary amount of | Captisol nee | eded for stu | dy: | | | | | | |
| [**] = Certain cor the Securiti | | | | s document, mant to Rule 24b- | | | | | |
| CyDex Inc. 12980 M CDInfo@cydexinc,co | | | Overland Park, | KS 66213 • (9 | 913) 685-88. | 50 • FAX (9 | 13) 685-8856 | · E-mail: | |



Oral Solid Formulation Protocol

| CyDex Protocol Track | | Protocol # | | | | | | |
|---|------------------|--|-------------------|---|----------------|-----------------|--------------|--------|
| Title of Study: | | | | | | | | |
| Purpose: | | | | | | | | |
| Animal: (include specie | es, age, and | weight) | | | | | | |
| Mean Weight Range: | | | | | | | | |
| Study Design | | | | | | | | |
| Formulation | | Drug Exposure | (optional) | | Captisol Expos | ure | # of Animals | |
| Volume (ml/kg) | Doses per Day | mg/ml mg/kg | mg/kg/day | mg/ml | mg/kg | mg/kg/day | Male | Female |
| | | | | | | | | |
| | | | | | | | | |
| Dosing Regime: | | | | | | | | |
| Vehicle: | | | | | | | | |
| Examination: (check all | that apply |) | | | | | | |
| ☐ Clinical Observation ☐ Food Consumption ☐ Ophthalmology ☐ Organ Weight ☐ Others | | ☐ Body Weight ☐ Electrocardiograms ☐ Urinalysis ☐ Necropsy | | ☐ Clinical Chemistry ☐ Toxicokinetics ☐ Hematology ☐ Microscopy | | | | |
| Performing Laboratory: | : | | | | | | | |
| Dosing Schedule: | | | | | | | | |
| Expected Report Submi | ission: | | | | | | | |
| GLP: This study | | be conducted | ed in accordance | with GLP sta | andards. (wi | ll or will not) | | |
| Necessary amount of C | aptisol need | ded for study: | | | | | | |
| [**] = Certain confid the Securities | | rmation contained in t nge Commission purs | | | | | | |
| CyDex Inc. 12980 Meta CDInfo@cydexinc,com | | uite 470, Overland Pa | rk, KS 66213 • (9 | 913) 685-885 | 50 • FAX (91 | 13) 685-8856 • | E-mail: | |



Appendix B

[**] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

CyDex Inc. 12980 Metcalf Ave., Suite 470, Overland Park, KS $66213 \cdot (913) \cdot 685-8850 \cdot FAX$ (913) $685-8856 \cdot E$ -mail: CDInfo@cydexinc,comVersion I,



RESULTS SUMMARY

| Protoc | ol # | | |
|--------|--|--|--|
| Title: | | | |
| | | | |
| Studie | s conducted under protocol: | | |
| | Study Number | Dates of Study | Variations from Protocol? (If so, please explain) |
| | | | |
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| | | Results Sum | |
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| Attach | any supporting documents as n | eeded. | |
| | | | |
| [**] | = Certain confidential informat the Securities and Exchange | ion contained in this document, m Commission pursuant to Rule 24b | arked by brackets, has been omitted and filed separately with -2 of the Securities Exchange Act of 1934, as amended. |
| | | ve., Suite 470, Overland Park, KS | 66213 • (913) 685-8850 • FAX (913) 685-8856 • E-mail: |
| | <i>.</i> , | | |
| | | | |

March 6, 2007

Dr. Susan Molineaux CSO Proteolix 230 East Grand Avenue, Suite A South San Francisco, CA 94080

Dear Dr. Molineaux:

Per section 4.2(a) of our license and supply agreement dated October 12th, 2005, the purchase price of clinical and research grades of Captisol is subject to an annual increase equal to the average percentage indicated by the Producer Price Index (Pharmaceutical Preparations) as reported by the Bureau of Labor Statistics, U.S. Department of Labor, for the 12-month period ending October 31 of the prior year (http://data.bls.gov/cgi-bin/surveymost?wp).

Said increase for the captioned period is 4.7%. This change is effective as of January 1st, 2007 and for the remainder of the calendar year. Kindly reflect price change on any purchases during 2007.

This letter serves as an amendment to the supply agreement. Attached you will find amendment to Exhibit C detailing the new price list.

If you have any questions, please contact Allen Roberson at (913) 402-3536 or via email at aroberson@cydexinc.com.

With best regards,

/s/ Michelle Baragary

Michelle Baragary Business Development Coordinator enclosure

cc: Jeff Stegall Allen Roberson

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AMENDMENT TO EXHIBIT C

PURCHASE PRICE FOR CAPTISOL Effective January 1, 2007

- **1. Clinical Grade CAPTISOL**: US\$[**] per kg, until such time as Proteolix orders more than [**] of Clinical Grade CAPTISOL, at which time the price of Clinical Grade CAPTISOL will [**] US\$[**] per kg.
- **2. Commercial Grade CAPTISOL**: The price of Commercial Grade CAPTISOL shall be determined pursuant to the following table, but subject to adjustment pursuant to Section 4.2(a) of the Agreement.

| SUPPLIED CAPTISOL (METRIC TONS PER YEAR) | COST (US\$ PER KG) |
|---|-----------------------|
| [**] | [**] |
| [^] | [^^] [**] |
| [**] | [**] |

3. Research Grade CAPTISOL:

| Catalog No. | Package Size | Price (USD) |
|-------------|---------------|-------------|
| NC-CAP-103 | 100 grams | [**] |
| NC-CAP-105 | 500 grams | [**] |
| NC-CAP-106 | 1 kilogram | [**] |
| NC-CAP-107 | 5 kilograms | [**] |
| | > 5 kilograms | [**] |

^{[**] =} Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

2 January 2008

Dr. Susan Molineaux CSO Proteolix 230 East Grand Avenue, Suite A South San Francisco, CA 94080

Dear Dr. Molineaux,

Per section 4.2(a) of our License and Supply Agreement dated October 12, 2005, the purchase price of research, clinical and commercial grades of Captisol is subject to an annual increase equal to the average percentage indicated by the Producer Price Index (Pharmaceutical Preparations) as reported by the Bureau of Labor Statistics, U.S. Department of Labor, for the 12-month period ending October 31 of the prior year (http://data.bls.gov/cgi-bin/surveymost?wp).

Said increase for the captioned period is 5.0%. However, CyDex has made the decision to increase only the clinical grade of Captisol by [**]%. This change is effective as of January 1, 2008 and for the remainder of the calendar year. Kindly reflect price change on future purchase orders.

This letter serves as an amendment to the license and supply agreement. Attached you will find the 2nd Amendment to Exhibit C detailing the new price list.

If you have any questions, please contact Allen Roberson at (913) 402-3536 or via email at aroberson@cydexinc.com.

With best regards,

/s/ Michelle Baragary

Michelle Baragary Business Development Coordinator Enclosure

cc: Jeff Stegall Leon Ku Allen Roberson

^{[**] =} Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

2nd AMENDMENT TO EXHIBIT C

PURCHASE PRICE FOR CAPTISOL

Effective January 1, 2008

- **1. Clinical Grade CAPTISOL:** US\$[**] per kg, until such time as Proteolix orders more than [**] of Clinical Grade CAPTISOL, at which time the price of Clinical Grade CAPTISOL will [**] US\$[**] per kg.
- **2. Commercial Grade CAPTISOL:** The price of Commercial Grade CAPTISOL shall be determined pursuant to the following table, but subject to adjustment pursuant to Section 4.2(a) of the Agreement.

| Supplied CAPTISOL | Cost |
|------------------------|---------------|
| (Metric Tons Per Year) | (US\$ per kg) |
| [**] | [**] |
| [**] | [**] |
| [**] | [**] |
| [**] | [**] |

3. Research Grade CAPTISOL:

| Catalog No. | Package Size | Price (USD) |
|-------------|---------------|-------------|
| NC-CAP-103 | 100 grams | [**] |
| NC-CAP-105 | 500 grams | [**] |
| NC-CAP-106 | 1 kilogram | [**] |
| NC-CAP-107 | 5 kilograms | [**] |
| | > 5 kilograms | [**] |

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February 9, 2009

Dr. Susan Molineaux CSO Proteolix 230 East Grand Avenue, Suite A South San Francisco, CA 94080

Dear Dr. Molineaux,

Per section 4.2(a) of our License and Supply Agreement dated October 12, 2005, the purchase price of research, clinical and commercial grades of Captisol is subject to an annual increase equal to the average percentage indicated by the Producer Price Index (Pharmaceutical Preparations) as reported by the Bureau of Labor Statistics, U.S. Department of Labor, for the 12-month period ending October 31 of the prior year (http://data.bls.gov/cgi-bin/surveymost?wp).

Said increase for the captioned period is 6.2%. However, CyDex has made the decision to increase only clinical grade of Captisol by [**]% and research grade of Captisol by [**]%. This change is effective as of March 1, 2009 and for the remainder of the calendar year. Kindly reflect price change on future purchase orders.

This letter serves as an amendment to the license and supply agreement. Attached you will find the 3rd Amendment to Exhibit C detailing the new price list.

If you have any questions, please contact Allen Roberson at (913) 402-3536 or via email at aroberson@cydexinc.com.

With best regards,

/s/ Marylyn Rives

Marylyn Rives Business Development Coordinator

Enclosure

cc: Jeff Stegall Leon Ku Allen Roberson

[**] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

3rd AMENDMENT TO EXHIBIT C

PURCHASE PRICE FOR CAPTISOL

Effective March 1, 2009

- **1. Clinical Grade CAPTISOL:** US\$[**] per kg, until such time as Proteolix orders more than [**] of Clinical Grade CAPTISOL, at which time the price of Clinical Grade CAPTISOL will [**] US\$[**] per kg.
- **2. Commercial Grade CAPTISOL:** The price of Commercial Grade CAPTISOL shall be determined pursuant to the following table, but subject to adjustment pursuant to Section 4.2(a) of the Agreement.

| Supplied CAPTISOL | Cost |
|------------------------|---------------|
| (Metric Tons Per Year) | (US\$ per kg) |
| [**] | [**] |
| [**] | [**] |
| [**] | [**] |
| [**] | [**] |

3. Research Grade CAPTISOL:

| Catalog No. | Package Size | Price (USD) |
|-------------|---------------|-------------|
| NC-CAP-103 | 100 grams | [**] |
| NC-CAP-105 | 500 grams | [**] |
| NC-CAP-106 | 1 kilogram | [**] |
| NC-CAP-107 | 5 kilograms | [**] |
| | > 5 kilograms | [**] |

^{[**] =} Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.



10513 W. 84th Terrace Lenexa, KS 65214 P 913.685.8850 F: 913.685.8856 www.cydexpharma.com

January 20, 2010

Leon Ku Director, Supply Chain Management Onyx Pharmaceuticals 333 Allerton Avenue South San Francisco, CA 94080

Dear Mr. Ku,

Per section 4.2(a) of our License and Supply Agreement dated October 12, 2005, the purchase price of research, clinical and commercial grades of Captisol is subject to an annual increase equal to the average percentage indicated by the Producer Price Index (Pharmaceutical Preparations) as reported by the Bureau of Labor Statistics, U.S. Department of Labor, for the 12-month period ending October 31 of the prior year (http://data.bls.gov/cgi-bin/surveymost?wp).

Said increase for the captioned period is 6.3%. However, CyDex has made the decision to increase the price of clinical grade of Captisol by [**]% and research grade of Captisol by [**]%. This change is effective as of February 15, 2010 and for the remainder of the calendar year. Kindly reflect price change on future purchase orders.

This letter serves as an amendment to the license and supply agreement. Attached you will find the 4th Amendment to Exhibit C detailing the new price list.

If you have any questions, please contact Marylyn Rives at (913) 685-8850 or via email at mrives@cydexpharma.com.

With best regards,

/s/ Jessica Smith

Jessica Smith Business Development & Marketing Assistant

Enclosure

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10513 W. 84th Terrace Lenexa, KS 65214 P 913.685.8850 F: 913.685.8856 www.cydexpharma.com

cc: Jeff Stegall Evan Lewis Allen Roberson

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10513 W. 84th Terrace Lenexa, KS 65214 P 913.685.8850 F: 913.685.8856 www.cydexpharma.com

4th AMENDMENT TO EXHIBIT C PURCHASE PRICE FOR CAPTISOL

Effective February 15, 2010

- **1. Clinical Grade CAPTISOL**: US\$[**] per kg, until such time as Proteolix orders more than [**] of Clinical Grade CAPTISOL, at which time the price of Clinical Grade CAPTISOL will [**] US\$[**] per kg.
- **2. Commercial Grade CAPTISOL**: The price of Commercial Grade CAPTISOL shall be determined pursuant to the following table, but subject to adjustment pursuant to Section 4.2(a) of the Agreement.

| SUPPLIED CAPTISOL | COST |
|------------------------|---------------|
| (METRIC TONS PER YEAR) | (US\$ PER KG) |
| [**] | [**] |
| [**] | [**] |
| [**] | [**] |
| [**] | [**] |

3. Research Grade CAPTISOL:

| CATALOG NO. | PACKAGE SIZE | PRICE (USD) |
|-------------|---------------|-------------|
| NC-CAP-103 | 100 grams | [**] |
| NC-CAP-105 | 500 grams | [**] |
| NC-CAP-106 | 1 kilogram | [**] |
| NC-CAP-107 | 5 kilograms | [**] |
| | > 5 kilograms | [**] |

^{[**] =} Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

ONYX PHARMACEUTICALS, INC. SUBSIDIARIES OF THE REGISTRANT

Subsidiary Legal Name Jurisdiction of Incorporation

Onyx Therapeutics, Inc. (formerly Proteolix, Inc.)

Delaware

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statement (Form S-3 No. 333-143825) of Onyx Pharmaceuticals, Inc.,
- (2) Registration Statement (Form S-3 No. 333-33322) of Onyx Pharmaceuticals, Inc.,
- (3) Registration Statement (Form S-8 No. 333-159496) pertaining to the 2005 Equity Incentive Plan of Onyx Pharmaceuticals, Inc.,
- (4) Registration Statement (Form S-8 No. 333-150928) pertaining to the 2005 Equity Incentive Plan of Onyx Pharmaceuticals, Inc.,
- (5) Registration Statement (Form S-8 No. 333-143309) pertaining to the 2005 Equity Incentive Plan and the 1996 Employee Stock Purchase Plan of Onyx Pharmaceuticals, Inc.,
- (6) Registration Statement (Form S-8 No. 333-134567) pertaining to the 1996 Employee Stock Purchase Plan of Onyx Pharmaceuticals, Inc.,
- (7) Registration Statement (Form S-8 No. 333-126089) pertaining to the 2005 Equity Incentive Plan, 1996 Equity Incentive Plan, and the 1996 Non-Employee Directors' Stock Option Plan of Onyx Pharmaceuticals, Inc.,
- (8) Registration Statement (Form S-8 No. 333-120324) pertaining to the 1996 Equity Incentive Plan of Onyx Pharmaceuticals, Inc.,
- (9) Registration Statement (Form S-8 No. 333-110469) pertaining to the 1996 Equity Incentive Plan and the 1996 Non-Employee Directors' Plan of Onyx Pharmaceuticals, Inc.,
- (10) Registration Statement (Form S-8 No. 333-96895) pertaining to the 1996 Equity Incentive Plan and the 1996 Employee Stock Purchase Plan of Onyx Pharmaceuticals, Inc.,
- (11) Registration Statement (Form S-8 No. 333-64706) pertaining to the 1996 Equity Incentive Plan and the 1996 Non-Employee Directors' Stock Option Plan of Onyx Pharmaceuticals, Inc.,
- (12) Registration Statement (Form S-8 No. 333-48146) pertaining to the 1996 Equity Incentive Plan, the 1996 Non-Employee Directors' Stock Option Plan and the Employee Stock Purchase Plan of Onyx Pharmaceuticals, Inc.,
- (13) Registration Statement (Form S-8 No. 333-84113) pertaining to the 1996 Equity Incentive Plan of Onyx Pharmaceuticals, Inc.,
- (14) Registration Statement (Form S-8 No. 333-60805) pertaining to the 1996 Equity Incentive Plan and the 1996 Employee Stock Purchase Plan of Onyx Pharmaceuticals, Inc.,
- (15) Registration Statement (Form S-8 No. 333-34681) pertaining to the 1996 Equity Incentive Plan, as amended, of Onyx Pharmaceuticals, Inc., and
- (16) Registration Statement (Form S-8 No. 333-04839) pertaining to the 1996 Equity Incentive Plan, the 1996 Employee Stock Purchase Plan, and the 1996 Non-Employee Directors' Stock Option Plan of Onyx Pharmaceuticals, Inc.

of our reports dated February 23, 2010, with respect to the consolidated financial statements of Onyx Pharmaceuticals, Inc., and the effectiveness of internal control over financial reporting of Onyx Pharmaceuticals, Inc., included in this Annual Report (Form 10-K) for the year ended December 31, 2009.

/s/ ERNST & YOUNG LLP

Palo Alto, California February 23, 2010

CERTIFICATION

- I, N. Anthony Coles, President and Chief Executive Officer of Onyx Pharmaceuticals, Inc., certify that:
- 1. I have reviewed this Annual Report on Form 10-K of Onyx Pharmaceuticals, Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- **3.** Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- **4.** The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- **5.** The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: February 23, 2010

/s/ N. Anthony Coles

N. Anthony Coles President and Chief Executive Officer (Principal Executive Officer)

CERTIFICATION

- I, Matthew K. Fust, Executive Vice President and Chief Financial Officer of Onyx Pharmaceuticals, Inc., certify that:
- 1. I have reviewed this Annual Report on Form 10-K of Onyx Pharmaceuticals, Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- **3.** Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- **4.** The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- **5.** The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: February 23, 2010

/s/ Matthew K. Fust

Matthew K. Fust Executive Vice President and Chief Financial Officer (Principal Financial Officer)

CERTIFICATION

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. § 1350), N. Anthony Coles, President and Chief Executive Officer of Onyx Pharmaceuticals, Inc. (the "Company"), and Matthew K. Fust, Executive Vice President and Chief Financial Officer of the Company, each hereby certify that, to the best of his knowledge:

- 1. The Company's Annual Report on Form 10-K for the period ended December 31, 2009, to which this Certification is attached as Exhibit 32.1 (the "Annual Report"), fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and
- 2. The information contained in the Annual Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: February 23, 2010

/s/ N. Anthony Coles

N. Anthony Coles President and Chief Executive Officer (Principal Executive Officer)

/s/ Matthew K Fust

Matthew K. Fust Executive Vice President and Chief Financial Officer (Principal Financial Officer)

A signed original of this written statement required by Rule 13(a)-14(b) of the Exchange Act and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. § 1350) has been provided to Onyx Pharmaceuticals, Inc. and will be retained by Onyx Pharmaceuticals, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

"This certification accompanies the Form 10-K to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Onyx Pharmaceuticals, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-K), irrespective of any general incorporation language contained in such filing."

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