

UNITED STATES

SECURITIES AND EXCHANGE
COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K



11007165

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15 (d) OF
THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2010

Or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE
SECURITIES EXCHANGE ACT OF 1934
Commission File Number 000-21243

OncoGenex Pharmaceuticals, Inc.

(Exact name of the registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

95-4343413
(I.R.S. Employer
Identification No.)

1522 - 217th Place SE, Suite 100, Bothell, Washington 98021
(Address of principal executive offices, including zip code)

(425) 686-1500
(Registrant's telephone number, including area code)

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

| Title of Each Class | Name of Exchange on Which Registered |
|---|--------------------------------------|
| Common Stock, par value \$0.001 per share | The NASDAQ Capital Market |

Securities registered pursuant to Section 12(g) of the Act:
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 of 15(d) of the Act. Yes No

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such report), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T

(§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

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

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

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

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

As of June 30, 2010, the aggregate market value of the registrant's Common Stock held by non-affiliates of the registrant was \$86,062,824. As of March 4, 2011, 9,714,501 shares of the registrant's Common Stock were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement to be filed with the Securities and Exchange Commission not later than April 30, 2011, in connection with the solicitation of proxies for its 2011 Annual Meeting of Stockholders, are incorporated by reference into Items 10, 11, 12, 13 and 14 of Part III hereof.

OncoGenex Pharmaceuticals, Inc.

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PART I

References in this Form 10-K to "OncoGenex Pharmaceuticals," "OncoGenex," the "Company," "we," "us" or "our" refer to OncoGenex Pharmaceuticals, Inc. and its wholly owned subsidiaries. The information in this Annual Report on Form 10-K contains certain forward-looking statements, including statements related to clinical trials, regulatory approvals, markets for our products, new product development, capital requirements and trends in its business that involve risks and uncertainties. Our actual results may differ materially from the results discussed in the forward-looking statements. Factors that might cause such a difference include those discussed in "Business," "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations," as well as those discussed elsewhere in this Annual Report on Form 10-K.

ITEM 1. BUSINESS

Overview of Our Business

OncoGenex is a biopharmaceutical company committed to the development and commercialization of new cancer therapies that address treatment resistance in cancer patients. We have five product candidates in our pipeline, custirsen, OGX-427, OGX-225, SN2310 and CSP-9222, each of which has a distinct mechanism of action and represents a unique opportunity for cancer drug development. Of the product candidates in our pipeline, custirsen, OGX-427 and SN2310 are clinical-stage assets.

Product Candidates Overview and Recent Developments

Our product candidates custirsen, OGX-427 and OGX-225 focus on mechanisms for treating resistance in cancer patients and are designed to address resistance by blocking the production of specific proteins that we believe promote survival of tumor cells and are over-produced in response to a variety of cancer treatments. Our aim in targeting these particular proteins is to disable the tumor cell's adaptive defenses, thereby rendering the tumor cell more susceptible to attack with a variety of cancer therapies, including chemotherapy. We believe this approach will increase the time of survival and improve the quality of life for cancer patients. Product candidate SN2310 is a novel camptothecin for treating cancer. Camptothecins are potent anticancer agents that belong to the family of drugs called topoisomerase I inhibitors. These inhibitors bind reversibly to the TOPO-I-DNA complex, thereby causing breaks in the DNA strands during replication that result in cell death. Product candidate CSP-9222 is the lead compound from a family of caspase activators that demonstrates activation of programmed cell death in pre-clinical models.

Custirsen

In December 2009, we announced that our wholly owned subsidiary, OncoGenex Technologies Inc., or OncoGenex Technologies, entered into a Collaboration and License Agreement, or Collaboration Agreement, with Teva Pharmaceutical Industries Ltd., or Teva, for the development and global commercialization of custirsen (and related compounds targeting clusterin, excluding OGX-427 and OGX-225). In connection with the Collaboration Agreement, we and Teva developed a Clinical Development Plan under which the following three phase 3 clinical trials will be initiated:

- A phase 3 clinical trial, referred to as the Prostate Cancer SATURN trial, or SATURN, to evaluate a durable pain palliation benefit for custirsen in combination with docetaxel retreatment as second-line chemotherapy in approximately 300 patients with metastatic castrate-resistance prostate cancer, or CRPC, which was initiated in the second quarter of 2010.
- A phase 3 clinical trial, referred to as the Synergy trial, or SYNERGY, to be conducted in approximately 125 cancer centers to evaluate a survival benefit for custirsen in combination with first-line docetaxel treatment in approximately 800 patients with CRPC, which was initiated in the third quarter of 2010.
- A phase 3 clinical trial to evaluate a survival benefit for custirsen in combination with first-line chemotherapy in patients with non-small cell lung cancer, or NSCLC, which is expected to be initiated in

2011 following successful manufacturing of additional custirsen drug product and completion of drug-drug interaction, or DDI, studies. The trial is expected to enroll approximately 950 patients. The study protocol will include two futility assessments and one interim analysis for efficacy. The first-line chemotherapy regimen has been selected as carboplatin and paclitaxel.

Under the Collaboration Agreement, Teva agreed to make upfront payments to us in the aggregate amount of \$50 million, payments of up to \$370 million to us upon the achievement of developmental and commercial milestones and royalties at percentage rates ranging from the mid-teens to mid-twenties on net product sales. Additionally, we have retained an option to co-promote custirsen in the United States and Canada.

Funding responsibilities for the Clinical Development Plan have been allocated as follows:

- We are required to contribute \$30 million towards development of custirsen, which will include our personnel costs for certain development activities.
- Teva is required to fund all other expenses under the Clinical Development Plan.

In addition to the development costs noted above, Teva is also responsible for all costs relating to product commercialization, including any costs incurred in relation to our co-promotion option, except for start-up costs of any exercised co-promotion activities in advance of commercialization. For a detailed discussion of the terms of the Collaboration Agreement, refer to the discussion below under the heading "License and Collaboration Agreements -- Teva Pharmaceutical Industries Ltd."

We and collaborating investigators have conducted five phase 2 clinical trials to evaluate the ability of custirsen to enhance the effects of therapy in prostate, non-small cell lung and breast cancers. Results have been presented for each of these phase 2 trials. We have designed phase 3 registration clinical trials to evaluate the clinical benefit of custirsen in combination with first-line docetaxel chemotherapy, and docetaxel retreatment as second-line therapy in patients with CRPC. Together with Teva, we are in the process of designing a phase 3 registration clinical trial with respect to NSCLC. Refer to the discussion below under the headings "Our Product Candidates--Custirsen--Summary of Custirsen Product Registration Strategy" and "--Summary of Results of Custirsen Phase 2 Clinical Trials" for further details.

OGX-427

OGX-427, is designed to inhibit heat shock protein 27, or Hsp27, completed a phase 1 clinical trial to evaluate safety for OGX-427 administered alone, as well as in combination with docetaxel chemotherapy, or docetaxel, in patients with various types of cancer. Final results of this phase 1 trial were presented during an oral presentation at the American Society of Clinical Oncology, or ASCO, 2010 annual meeting.

A second investigator-sponsored phase 1 clinical trial evaluating OGX-427 when administered directly into the bladder in patients with bladder cancer was initiated in August 2009. The trial, which will enroll up to 36 patients with bladder cancer, is designed to determine the safety and potential benefit of OGX-427 administered directly into the bladder using a catheter, an administration procedure known as intravesical instillation. In addition, the trial will measure the direct effect of OGX-427 on expression of Hsp27 in bladder tumor cells, as well as determine the pharmacokinetics and pharmacodynamics of OGX-427 when delivered by intravesical instillation.

In September 2010, we announced the initiation of a separate investigator-sponsored, randomized phase 2 clinical trial evaluating OGX-427 when administered as a monotherapy to patients with CRPC. This randomized, controlled phase 2 trial will enroll up to 72 patients who have minimally symptomatic or asymptomatic advanced prostate cancer and who have not yet received chemotherapy, and is designed to determine the potential benefit of OGX-427 by evaluating the number of patients who are without disease progression at 12 weeks post-trial treatment with or without OGX-427.

We expect to initiate a randomized phase 2 clinical trial of OGX-427 in approximately 180 patients with metastatic bladder cancer in the second half of 2011. The proposed trial design is a three-arm, randomized phase 2 in

combination with standard chemotherapy in the first-line metastatic setting. Each arm would enroll approximately 60 patients and the trial would be initiated in sites throughout the United States, Canada and Europe. We are consulting with external bladder cancer experts and anticipate initiating this trial in the second half of 2011.

We are assessing various alternatives, including partnering, to potentially further expand the OGX-427 development plan.

SN2310, OGX-225 and CSP-9222

SN2310 completed a phase 1 clinical trial in 2008 that was designed to evaluate safety in patients with advanced cancer who have received on average three to five prior chemotherapy treatments. We are currently exploring options to out-license this product candidate.

OGX-225 is a product candidate in pre-clinical development that is designed to inhibit production of both Insulin Growth Factor Binding Protein 2, or IGFBP-2, and Insulin Growth Factor Binding Protein-5, or IGFBP-5. Increased IGFBP-2 or IGFBP-5 production is observed in many human cancers, including prostate, non-small cell lung, breast, ovarian, bladder, pancreatic and colon, as well as acute myeloid leukemia, acute lymphoblastic leukemia, neuroblastoma, glioma and melanoma. Increased IGFBP-2 or IGFBP-5 production is linked to faster rates of cancer progression, treatment resistance and shorter survival duration in humans.

CSP-9222, which is in pre-clinical development, is the lead compound from a family of caspase activators. These novel, small molecules have been identified as activators of programmed cell death in pre-clinical models.

Financial Overview

In 2010, we recognized \$13.6 million in collaboration revenue attributable to our Collaboration Agreement with Teva. We have devoted substantially all of our resources to the development of our product candidates.

We incurred a loss for the year ended December 31, 2010 of \$12.6 million and had a cumulative loss at December 31, 2010 of \$66.1 million. We expect to continue to incur increasing additional losses in the future as we continue our research and development activities.

To date, we have funded our operations primarily through private and public placements of equity securities and upfront payments received from our Collaboration Agreement with Teva.

Management believes that additional human resources will be required to carry on existing development activities, although some of these costs will be passed through to Teva. We are unable to predict when, if ever, we or Teva will be able to commence the sale of custirsen or any of our other product candidates.

Recent Corporate History

On August 21, 2008, the Company, then named Sonus Pharmaceuticals, Inc., completed its acquisition, or the Arrangement, of OncoGenex Technologies, a Canadian corporation, as contemplated by the Arrangement Agreement between the companies dated May 27, 2008. As a result of the Arrangement, OncoGenex Technologies became a wholly owned subsidiary of the Company. As used in this Annual Report on Form 10-K, the term "Sonus" refers to the business of the Company prior to August 21, 2008. More information concerning the Arrangement is contained in Note 5 of the Notes to Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K.

We account for the Arrangement as a reverse acquisition and OncoGenex Technologies was treated as the acquiring entity from an accounting perspective. The consolidated results of operations for the years ended December 31, 2010, December 31, 2009 and December 31, 2008 include the results of operations of only OncoGenex Technologies for the time period of January 1, 2008 through August 20, 2008 and include the results of the combined company following the completion of the Arrangement on August 21, 2008. This treatment and presentation is in accordance with Statement of Financial Accounting Standard, or SFAS, 141. Information relating

to the number of shares, price per share and per share amounts of common stock are presented on a post- reverse stock split basis, as a one-for-eighteen reverse stock split was effected in connection with the Arrangement.

We were incorporated in October 1991 and OncoGenex Technologies was incorporated in May 2000.

Our Product Candidates

We have three clinical-stage product candidates, custirsen, OGX-427 and SN2310, and two pre-clinical-stage product candidates, CSP-9222 and OGX-225.

Custirsen

Overview of Custirsen

Through our clinical trials, we are treating cancer patients with custirsen to reduce clusterin production. Clusterin is a protein that is over-produced in several types of cancer and in response to many cancer treatments, including hormone ablation therapy, chemotherapy and radiation therapy. Preclinical and other data suggest that clusterin promotes cell survival. Increased clusterin production has been linked to faster rates of cancer progression, treatment resistance and shorter survival duration. Since increased clusterin production is observed in many human cancers, including prostate, non-small cell lung, breast, ovarian, bladder, renal, pancreatic, colon, anaplastic large cell lymphoma, and melanoma, we believe that custirsen may have broad market potential to treat many cancer indications and disease stages.

A broad range of pre-clinical studies conducted by the Vancouver Prostate Centre and others have shown that reducing clusterin production with custirsen (i) facilitates tumor cell death by sensitizing human prostate, non-small cell lung, breast, ovarian, bladder, renal and melanoma tumor cells to various chemotherapies and (ii) sensitizes prostate tumor cells to hormone ablation therapy and sensitizes prostate and non-small cell lung tumor cells to radiation therapy. Pre-clinical studies conducted by the Vancouver Prostate Centre also indicate that reducing clusterin production with custirsen re-sensitizes docetaxel-resistant prostate tumor cells to docetaxel.

Our phase 1 clinical trials evaluated the safety and established a recommended dose of custirsen in combination with docetaxel (two different schedules), a gemcitabine and a platinum chemotherapy regimen and hormone ablation therapy. Docetaxel, gemcitabine and platinum (cisplatin and carboplatin) are all examples of chemotherapy agents. The highest dose evaluated in all of our phase 1 clinical trials was 640 mg, which dose was determined by the clinical investigators to be well tolerated and therefore established as the recommended dose.

We have conducted five phase 2 clinical trials to evaluate the ability of custirsen to enhance the effects of therapy in prostate, non-small cell lung and breast cancer. Data is available from each of the five phase 2 trials that demonstrate that adding custirsen to therapy shows potential benefits, including:

- longer survival duration when adding custirsen to first-line docetaxel compared to first-line docetaxel alone in patients with CRPC within a randomized phase 2 trial;
- longer survival duration when adding custirsen to either mitoxantrone or docetaxel as second-line chemotherapy compared to survival duration observed in two prior published trials of CRPC patients receiving second-line chemotherapy and comparable survival to cabazitaxel that was recently approved in the United States in 2010. One study evaluated patients with better prognostic risk factors who received docetaxel as second-line chemotherapy, which study, or the BCCA Study, was conducted at the British Columbia Cancer Agency and presented at the ASCO Genitourinary Conference in 2008. The second study was the follow-up evaluation of patients on the TAX 327 Study who later received second-line chemotherapy, which was presented at the ASCO 2007 Prostate Cancer Symposium. The TAX 327 Study was the key registration study that showed a survival benefit for docetaxel over mitoxantrone for first-line chemotherapy treatment of patients with metastatic CRPC. A Phase 3 trial comparing mitoxantrone to cabazitaxel as second-line chemotherapy for patients with CRPC, referred to as the TROPIC trial, and was the key registration study that showed a survival benefit for cabazitaxel over mitoxantrone for second-line

chemotherapy treatment of patients with metastatic CRPC. The reported median survival for second-line chemotherapy in most trials has been approximately 10 months (range 9-12 months) with the exception that the TROPIC trial showed median survival to be 15.1 months for patients treated with cabazitaxel;

- post-treatment serum clusterin levels were lower compared to baseline levels and the average serum clusterin levels were predictive of survival in preliminary analysis;
- increased frequency of pain responses when compared to pain responses from either mitoxantrone or cabazitaxel second-line chemotherapy in the phase 3 TROPIC trial, and increased frequency and duration of pain palliation when adding custirsen to either mitoxantrone or docetaxel as second-line chemotherapy compared to the frequency and duration of pain palliation observed in the TAX 327 Study for first-line chemotherapy alone in patients with CRPC; and
- longer survival duration when adding custirsen to gemcitabine and a platinum-containing chemotherapy compared to the survival duration reported in prior published results from randomized clinical trials in NSCLC patients receiving gemcitabine and a platinum-containing chemotherapy.

Refer to the discussion below under the heading “Summary of Results of Custirsen Phase 2 Clinical Trials” for further details.

As part of our phase 1 and phase 2 clinical trials, custirsen was administered to 294 patients with various types of cancer. Some of the patients experienced a variety of adverse events, the majority of which are associated with other treatments in the protocol and the disease. The majority of adverse events were mild and the most common adverse events associated with custirsen consisted of flu-like symptoms. The most common moderate and severe adverse events associated with custirsen were neutropenia, vomiting, diarrhea and difficulty breathing (also known as “dyspnea”), which occurred in more than 2% of patients.

The U.S. Adopted Name for the custirsen drug product is custirsen sodium, which is the generic name.

Summary of Custirsen Product Registration Strategy

As a result of the partnership with Teva, there is committed funding for three phase 3 clinical trials evaluating custirsen. Two phase 3 clinical trials will evaluate the clinical benefit of custirsen in CRPC. Both trials were initiated in 2010. The third phase 3 trial, which is projected to be initiated in 2011, is being developed in collaboration with Teva, and will evaluate the clinical benefit of custirsen in NSCLC. The Clinical Development Plan between Teva and us, under which the three phase 3 clinical trials are to be initiated, is as follows:

- The phase 3 SATURN trial to evaluate a durable pain palliation benefit for custirsen in combination with docetaxel retreatment as second-line chemotherapy in approximately 300 patients with CRPC, which was initiated in the second quarter of 2010.
- The phase 3 SYNERGY trial to be conducted in approximately 125 cancer centers to evaluate a survival benefit for custirsen in combination with first-line docetaxel treatment in approximately 800 patients with CRPC, which was initiated in the third quarter of 2010.
- A phase 3 clinical trial to evaluate a survival benefit for custirsen in combination with first-line chemotherapy in patients with NSCLC, which is expected to be initiated in 2011 following successful manufacturing of additional custirsen drug product and completion of DDI studies. The trial is expected to enroll approximately 950 patients. The study protocol will include two futility assessments and one interim analysis for efficacy. The first-line chemotherapy regimen has been selected as carboplatin and paclitaxel.

Custirsen has received Fast Track designations from the U.S. Food and Drug Administration, or FDA, for the treatment of CRPC in combination with docetaxel for both first and second-line docetaxel treatment. The FDA has agreed on the design of two phase 3 registration trials, each in CRPC, via the Special Protocol Assessment, or SPA, process. One trial design investigates overall survival as the primary endpoint for custirsen in combination with

first-line chemotherapy, whereas the other trial design investigates pain palliation as the primary endpoint for custirsen in combination with second-line chemotherapy.

We have also received written, scientific advice from the European Medicines Agency, or EMA, on our development plan for custirsen for the treatment of men with CRPC. The input received from the Committee for Medicinal Products for Human Use, or CHMP, at the EMA was in overall agreement with our development plan regarding the proposed pre-clinical studies and both the study designs and analyses for the phase 3 trials. The CHMP also agreed that the intended safety database would enable a sufficiently qualified risk-benefit assessment for market approval.

Summary of Results of Custirsen Phase 2 Clinical Trials

Five phase 2 clinical trials have been conducted to evaluate the ability of custirsen to enhance the effects of therapy in prostate, non-small cell lung and breast cancer. The following is a summary of the clinical trials evaluating custirsen in combination with chemotherapy.

Summary of Final Results of Custirsen Phase 2 Clinical Trial in Patients With CRPC Receiving Custirsen and Docetaxel as First-Line Chemotherapy

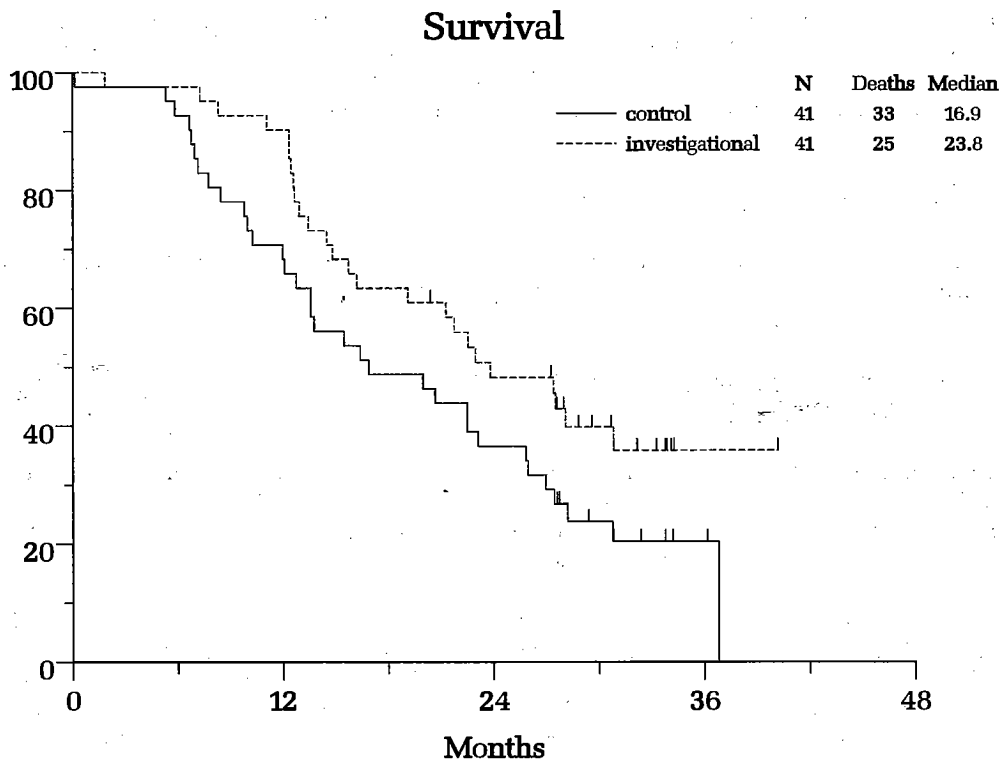
Final results of a randomized phase 2 trial evaluating the benefit of combining custirsen with first-line docetaxel in patients with CRPC were presented during an oral presentation at the ASCO 2009 annual meeting, and were published in the September 20, 2010 issue of the Journal of Clinical Oncology. In this phase 2 trial, patients were randomized to receive either docetaxel or custirsen plus docetaxel.

The trial enrolled 82 patients at 12 sites in Canada and the United States from September 2005 to December 2006. Patients were randomized to one of two treatment arms to receive either 640 mg of custirsen per week by intravenous infusion in combination with docetaxel and prednisone or docetaxel and prednisone alone. Patients in both treatment arms received therapy until disease progression, toxicity or the completion of 10 three-week cycles of therapy. Analyses indicated a survival benefit in patients treated with custirsen in combination with docetaxel compared to docetaxel alone, which is the current standard of care for first-line chemotherapy treatment of patients with advanced prostate cancer:

- The median overall survival in patients who were treated in the custirsen plus docetaxel trial was 23.8 months compared to 16.9 months for patients treated with docetaxel alone, indicating a 6.9 month survival advantage in the custirsen arm.
- The unadjusted hazard ratio, or HR, a measure used to compare the death rates between treatment groups, was 0.61, representing a 39% lower rate of death for patients treated with custirsen.
- A prospectively defined multivariate analysis indicated that the significant predictors of overall survival were treatment arm, performance status and presence of metastases other than in bone or lymph nodes. In the multivariate analysis, patients treated with custirsen had a rate of death of 51% lower than patients treated with docetaxel alone (HR=0.49; p=0.012). Additional exploratory analyses found that the lower rate of death was associated with the effect of custirsen treatment even when varying amounts of chemotherapy were administered. In other words, custirsen treatment resulted in a lower rate of death when compared to the control arm for patients receiving six or less cycles of chemotherapy, as well as for patients receiving 10 cycles of chemotherapy.

Investigators concluded that custirsen treatment was well tolerated in combination with docetaxel. There was an increase in incidence of mild fever, chills and creatinine levels (a laboratory measure for reduced kidney function) and a moderate to significant decrease in circulating lymphocytes in the blood (another laboratory measure) without any increase in infection rate compared to the docetaxel arm. Lymphocytes are a type of white blood cell involved in the body's defense against infections. Due to the final results of this randomized phase 2 trial, the phase 3 SYNERGY trial will evaluate the overall survival benefit of custirsen in patients treated with first-line chemotherapy.

The following graph displays the Kaplan-Meier curves for custirsen in combination with docetaxel as compared to docetaxel alone:



Summary of Results of Custirsen Phase 2 Clinical Trial in Patients Receiving Docetaxel as Second-Line Therapy

We have completed accrual and patient treatment in our randomized phase 2 clinical trial in patients with CRPC evaluating custirsen in combination with either docetaxel or mitoxantrone as second-line chemotherapy. In this phase 2 trial, patients who were previously treated with a first-line, docetaxel-based chemotherapy regimen and progressed on or within six months of discontinuation of docetaxel treatment were randomized to receive custirsen plus either docetaxel retreatment or mitoxantrone. Initially, 42 patients were randomized, and received at least one cycle of custirsen and chemotherapy and were included in the analysis: 20 patients received docetaxel retreatment plus custirsen and 22 patients received mitoxantrone plus custirsen. The protocol was amended to allow additional patients to be enrolled in the docetaxel retreatment arm. Enrollment into the amended protocol was initiated in May 2007 and 25 additional patients were enrolled. All patients received at least one cycle of custirsen and docetaxel retreatment and were included in the analysis. The last survival update was on August 13, 2010. All patients were followed for a minimum of 36 months or until death.

The preliminary results for the clinical trial are summarized as follows:

- Survival duration is longer than the survival duration observed in the follow-up evaluation of patients on the TAX 327 Study who later received second-line chemotherapy and were available for long-term follow-up. In the follow-up evaluation of the TAX 327 Study, 237 patients received either docetaxel or mitoxantrone as second-line chemotherapy. The median (50%) survival duration from the start of second-line chemotherapy was 10 months for both groups of patients (patients receiving mitoxantrone as second-line chemotherapy after receiving docetaxel as first-line chemotherapy or patients receiving docetaxel as second-line chemotherapy after receiving mitoxantrone as first-line chemotherapy). As of August 13, 2010, the estimated median over survival duration for the custirsen plus mitoxantrone arm was 11.5 months (95%

C.I.: 6.1-15.2 months). For the custirsen plus docetaxel retreatment arm, the median overall survival was estimated at 15.8 months (95% C.I.:9.9-23.3 months) for the 20 randomized patients and 12.8 months (95% C.I.:9.9-17.0 months) for the 45 combined patients which included 25 additional patients with high serum clusterin levels at enrolment beyond the 20 randomized patients.

- The survival data from this clinical trial also compares favorably to the median survival duration of 9.6 months for patients who received second-line docetaxel after first-line docetaxel in the retrospective BCCA Study. The patients in the BCCA Study had a better prognosis than the patients in our clinical trial.
- Preliminary analyses have shown that treatment with custirsen in combination with chemotherapy significantly lowers serum clusterin levels and that average serum clusterin levels were predictive of survival, with low serum clusterin levels correlating to longer survival.
- Pain responses were observed in 46% of evaluable patients in the mitoxantrone group and 59% of evaluable patients in the docetaxel retreatment combined group. Evaluable patients had pain or were on opioids for pain control. Durable pain responses (defined as duration of 12 weeks or greater) were observed in 38% of evaluable patients in the mitoxantrone group and 51% of evaluable patients in the docetaxel retreatment combined group.
- Pain responses when adding custirsen to docetaxel treatment as second-line therapy were favorable when compared to the pain responses reported for the Phase 3 TROPIC trial leading to the 2010 approval of cabazitaxel in the United States for patients who had previously received treatment with chemotherapy. In the TROPIC trial, which evaluated a similar patient population for second-line chemotherapy as was evaluated in our Phase 2 trial (i.e., patients who had progressed while on or soon after first-line docetaxel therapy), the pain response for cabazitaxel was 9.2% and for mitoxantrone was 7.7%. The reported median survival for second-line chemotherapy in most trials has been approximately 10 months (range 9-12 months) with the exception that the TROPIC trial showed median survival to be 15.1 months for patients treated with cabazitaxel.

Summary of Preliminary Results of Custirsen Phase 2 Clinical Trial in Patients With NSCLC

We have completed accrual, patient treatment, and reported trial data for our clinical trial in patients with advanced NSCLC, which evaluated custirsen in combination with gemcitabine and a platinum chemotherapy (cisplatin or carboplatin) as first-line chemotherapy. In this phase 2 trial, 81 patients with advanced NSCLC received custirsen in combination with gemcitabine and a platinum chemotherapy as first-line chemotherapy. Eighty-one percent of the patients had stage IV disease at enrollment, and 16% had squamous cell carcinoma. Patients remaining alive have been followed for a median (range) of 41 (38-59) months.

- the median overall survival was 14.1 months and 54% of patients survived at least one year;
- 30% of patients who had received custirsen with first-line chemotherapy survived at least two years;
- for comparison, published studies using a platinum-based regimen plus gemcitabine as first-line chemotherapy for advanced NSCLC reported median survivals of 8 to 11 months and one-year survival rates of 33% to 43%. Market approval for Avastin plus paclitaxel and carboplatin chemotherapy for NSCLC was based on results showing a median survival of 12.3 months compared to 10.3 months for patients treated with chemotherapy alone. Survival rates for Avastin plus chemotherapy versus chemotherapy alone were reported as 51% versus 44% at one year and 23% versus 15% at two years, respectively;
- disease control was achieved in 69% of patients; and
- preliminary analyses have shown that treatment with custirsen in combination with gemcitabine and a platinum chemotherapy significantly lowers serum clusterin levels and that average serum clusterin levels were predictive of survival, with low serum clusterin levels correlating to longer survival.

Summary of Preliminary Results of Custirsen Phase 2 Clinical Trial in Patients With Advanced Breast Cancer

In January 2009, the results of the clinical trial in 15 patients with advanced breast cancer, which evaluated custirsen in combination with docetaxel as first-line or second-line chemotherapy, were published in the scientific journal *Clinical Cancer Research*. The authors' conclusion was that the combination of custirsen and docetaxel at 75 mg/m² was well tolerated and some clinical activity was seen in the patients with metastatic breast cancer.

Summary of Preliminary Results of Custirsen Phase 2 Clinical Trial in Patients With CRPC Receiving Hormone Ablation Therapy

This trial was an investigator-sponsored trial that evaluated weekly OGX-011 with androgen withdrawal therapy for a three-month duration in patients with high-risk, localized prostate carcinoma prior to radical prostatectomy. The results of the trial indicated that OGX-011 was detectable in prostate tissue for 14 days after the last administration, that clusterin expression was decreased in cells from lymph nodes as well as from prostate specimens, and that more of the cells in these patients were undergoing apoptosis (cell death) compared with patients who never received androgen withdrawal therapy or who received only androgen withdrawal therapy.

OGX-427

Overview of OGX-427

OGX-427 is product candidate that, in pre-clinical experiments, inhibits production of Hsp27, a cell survival protein found at elevated levels in many human cancers, including prostate, lung, breast, ovarian, bladder, renal, pancreatic, multiple myeloma and liver cancer. Many anti-cancer therapies are known to further elevate Hsp27 levels. For example, Hsp27 levels increased four-fold in prostate cancer patients after treatment with chemotherapy or hormone therapy. Increased levels of Hsp27 in some human cancers are associated with metastases, poor prognosis and resistance to radiation or chemotherapy.

A number of pre-clinical studies conducted by the Vancouver Prostate Centre and others have shown that inhibiting the production of Hsp27 in human prostate, breast, ovarian, pancreatic and bladder tumor cells sensitizes the cells to chemotherapy. These preclinical studies have shown that reducing Hsp27 production induces tumor cell death in prostate, breast, non-small cell lung, bladder and pancreatic cancers, and indicates that reducing Hsp27 production sensitizes prostate tumor cells to hormone ablation therapy.

Summary of Results of OGX-427 Phase 1 Clinical Trial in Patients With Solid Tumors

OGX-427 has been evaluated in a phase 1 trial in patients with breast, prostate, ovarian, or non-small cell lung cancer who have failed potentially curative treatments or for which a curative treatment does not exist. Final results of this phase 1 trial were presented during an oral presentation at the ASCO 2010 annual meeting. The phase 1 trial evaluated 36 patients treated with OGX-427 as a single agent and 12 patients treated with OGX-427 in combination with docetaxel, who had failed up to six prior chemotherapy treatments. OGX-427 as a single agent administered weekly was evaluated at doses from 200 mg up to 1000 mg in five cohorts of approximately six patients in each cohort. Two further cohorts tested OGX-427 at the 800 and 1000 mg doses combined with docetaxel. Patients could receive up to 10 21-day cycles.

When OGX-427 was given as a single agent, a median of two cycles (range of 0 to 8) was administered. Most adverse events were mild (grade 1 or 2) and mainly occurred during the three "loading doses" given over nine days prior to weekly dosing. The majority of adverse events determined to be related to OGX-427 consisted of grade 1 or 2 fever, chills, itching, or flushing (associated with the infusion of OGX-427) and fatigue.

When OGX-427 was combined with docetaxel, a median of six cycles (range of 1 to 10) was administered. Infusion reactions continued to be the most common adverse events, followed by chills, fatigue, nausea, back pain, itching, poor appetite and shortness of breath. Despite evaluating OGX-427 at very high doses, a maximum tolerated dose for OGX-427 was not reached in this trial.

When OGX-427 was used as monotherapy, 3 of 17 evaluable patients had a decrease in measurable disease of 20% or greater. In this heavily pretreated patient population, two of four patients with ovarian cancer had a decrease of 25% or greater in CA-125 (an ovarian tumor marker) and 3 of 15 patients with prostate cancer had a decrease of 30% or greater in PSA (a prostate tumor marker).

At all doses and in all diseases evaluated in the trial decreases were observed for both total circulating tumor cells, or CTCs, and CTCs which were positive for Hsp27, or Hsp27+CTCs. Recent studies have shown that the presence of CTCs in peripheral blood may be of prognostic significance for patients with solid tumors, and patients with values of five tumor cells or less are generally considered to have a more favorable prognosis. Hsp27+CTCs decreases were noted in 89% of evaluable patients and were observed at all dose levels and all diseases evaluated. In 9 of 26 (31%) patients with ≥ 5 Hsp+CTCs at baseline, Hsp27 + CTCs had decreased to five tumor cells or less. In addition, serum Hsp27 protein levels were decreased by 30% or greater over a period of at least six weeks in approximately 25% of patients at the 800 and 1000 mg doses.

When OGX-427 was combined with docetaxel, 5 of 10 patients had a decrease in measurable disease of 20% or greater. Five of nine patients with prostate cancer had a decrease of 30% or greater in PSA. Again, decreases in both total CTCs and Hsp27 (+) CTCs were observed. Hsp27+CTCs were decreased in 71% of evaluable patients. In four of seven patients with ≥ 5 Hsp+CTCs at baseline, Hsp+ CTCs had decreased to five cells or less. Serum Hsp27 protein levels were decreased by 30% or greater over a time period of at least six weeks in approximately 35% of patients.

Summary of Ongoing OGX-427 Randomized Phase 2 Clinical Trial in Patients With CRPC

In September 2010, we announced the initiation of a second investigator-sponsored phase 2 clinical trial evaluating OGX-427 when administered as a monotherapy to patients with CRPC. This randomized, controlled phase 2 trial will enroll up to 72 patients who have minimally symptomatic or asymptomatic advanced prostate cancer and who have not yet received chemotherapy, and is designed to determine the potential benefit of OGX-427 by evaluating the number of patients who are without disease progression at 12 weeks post-study treatment with or without OGX-427. This phase 2 trial will also measure the direct effect of OGX-427 on PSA levels, time to progression by PSA or measurable disease, numbers of CTCs and other relevant secondary endpoints.

Summary of Ongoing OGX-427 Phase 1 Clinical Trial in Patients With Bladder Cancer

An investigator-sponsored phase 1 clinical trial evaluating OGX-427 when administered directly into the bladder in patients with bladder cancer was initiated in August 2009. The trial, which will enroll up to 36 patients with bladder cancer, is designed to determine the safety and potential benefit of OGX-427 administered directly into the bladder using a catheter, which is known as intravesical instillation. In addition, the trial will measure the direct effect of OGX-427 on expression of Hsp27 in bladder tumor cells, as well as determine the pharmacokinetics and pharmacodynamics of OGX-427 when delivered by intravesical instillation. This investigator-sponsored clinical trial is funded by the National Cancer Institute of Canada.

Summary of Proposed OGX-427 Randomized Phase 2 Clinical Trial in Patients With Metastatic Bladder Cancer

We expect to initiate a phase 2 clinical trial of OGX-427 in approximately 180 patients with metastatic bladder cancer in the second half of 2011. The proposed trial design is a three-arm, randomized phase 2 in combination with standard chemotherapy in the first-line metastatic setting. Each arm would enroll approximately 60 patients and the trial would be initiated in sites throughout the United States, Canada and Europe. We are consulting with external bladder cancer experts and anticipate initiating this trial in the second half of 2011.

SN2310

Product candidate SN2310 is a novel camptothecin for treating cancer. Camptothecins are potent anticancer agents that belong to the family of drugs called topoisomerase I inhibitors that bind reversibly to the TOPO-I-DNA complex causing breaks in the DNA strands during replication, thereby resulting in cell death. The phase 1 clinical trial evaluated safety in patients with advanced cancer who have received on average three to five prior

chemotherapy treatments. The phase 1 clinical trial was completed in 2008 and the dose-limiting toxicity that defined a maximum tolerated dose in this heavily pretreated patient population was a significant decrease in the number of neutrophils, or neutropenia, a type of white blood cell that is involved in the body's defense against infections.

SN2310 has been administered to 26 patients with various types of cancer in a phase 1 clinical trial. Enrollment for this clinical trial has been completed. Some of the patients experienced adverse events, which were considered unrelated to the trial drug and attributed to the underlying disease. Of the adverse events associated with the administration of SN2310, most were mild and the most common events were nausea, diarrhea, vomiting and fatigue. Mild to moderate reactions (back/chest pain, flushing) have been observed during infusions. Significant neutropenia occurred in some patients and was the dose-limiting toxicity observed, sometimes associated with fever or septicemia. We have not defined additional development activities for this product candidate at this time and are currently exploring options to out-license this product candidate.

OGX-225

The development program for our fourth product candidate, OGX-225, is focused on reducing the production of both IGFBP-2 and IGFBP-5, thereby enhancing treatment sensitivity and delaying tumor progression. Increased IGFBP-2 or IGFBP-5 production is observed in many human cancers and is linked to faster rates of cancer progression, treatment resistance and shorter survival duration. We believe that employing OGX-225 as a monotherapy will inhibit the production of both IGFBP-2 and IGFBP-5 and result in the delay of disease progression in cancers that depend on insulin-like growth factor 1, or IGF-1, for proliferation. We have completed pre-clinical proof of concept studies with OGX-225.

We believe that because IGFBP-2 and IGFBP-5 are over-produced in a variety of cancers, OGX-225 may have broad market potential to treat many cancer indications. We believe that the initial opportunity for OGX-225 would be in breast and prostate cancer patients early in the course of their recurrence after failed hormone ablation therapy.

We have identified the lead compound and completed numerous preclinical proof of concept studies with OGX-225, which indicate that OGX-225 delays disease progression in prostate and breast cancer model systems. We have not yet initiated the pre-Investigational New Drug, or IND, studies required for a regulatory submission and initiation of phase 1 clinical trials.

CSP-9222

Product candidate CSP-9222 is the lead compound from a family of caspase activators. These novel, small molecules have been identified as activators of programmed cell death in pre-clinical models.

Second-Generation Antisense Technology

Custirsen, OGX-427 and OGX-225 are based on second-generation antisense drug chemistry and belong to the drug class known as antisense therapeutics. On a product-by-product basis, we have collaborated with Isis Pharmaceuticals Inc., or Isis, and selectively licensed technology from Isis to combine Isis' second-generation antisense chemistry with our proprietary gene target sequences to create inhibitors that are designed to down regulate certain proteins associated with cancer resistance. In contrast to first-generation antisense chemistry, second-generation antisense chemistry has improved target binding affinity, increased resistance to degradation and improved tissue distribution. These improvements result in slower clearance of the therapies from the body, which allow for less frequent dosing and thereby make treatment easier on patients at a lower associated cost. For example, clinical data from our phase 1 clinical trial in prostate cancer patients demonstrated that weekly intravenous administration of custirsen resulted in drug distribution to prostate cancer tissue and over 92% inhibition of its target, clusterin mRNA, in prostate tumor cells in these patients. These data demonstrate that following systemic administration, custirsen entered tumor cells and effectively inhibited clusterin production.

Summary of Product Development Programs

The following table summarizes the status of our product development programs:

| Product Candidate | Cancer Indication and Study | Treatment Combination(1) | Development Phase/Status | Recent and Expected Near Term Data Releases |
|------------------------------|---|---|---|--|
| Custirsen phase 3 (2) | Metastatic Castrate Resistant Prostate Cancer – Survival Endpoint (SYNERGY) | First-line docetaxel with and without custirsen (~800 patients) | <ul style="list-style-type: none"> Phase 3 ongoing; SPA approved by the FDA and EMA in agreement with development plan | <ul style="list-style-type: none"> Phase 3 initiated in third quarter of 2010. Teva has primary responsibility for the oversight of this trial |
| | Metastatic Castrate Resistant Prostate Cancer – Durable Pain Palliation Endpoint (SATURN) | Docetaxel retreatment as second-line chemotherapy with and without custirsen (~300 patients) | <ul style="list-style-type: none"> Phase 3 ongoing; SPA approved by the FDA and EMA in agreement with development plan | <ul style="list-style-type: none"> Phase 3 initiated in the second quarter of 2010. OncoGenex has primary responsibility for the oversight of this trial |
| | Advanced Non-Small Cell Lung Cancer – Survival Endpoint | Chemotherapy with or without custirsen (Protocol not yet disclosed) | <ul style="list-style-type: none"> Initiation pending in 2011 | <ul style="list-style-type: none"> Expected to initiate in 2011. Teva has primary responsibility for the oversight of this trial |
| Custirsen phase 2 | Metastatic Castrate Resistant Prostate Cancer (OGX-011-03) | First-line docetaxel with and without custirsen | <ul style="list-style-type: none"> Phase 2 completed | <ul style="list-style-type: none"> Final survival data presented at 2009 ASCO annual meeting Data published in Journal of Clinical Oncology September 2010 |
| | Metastatic Castrate Resistant Prostate Cancer (OGX-011-07) | Custirsen with second-line chemotherapy (docetaxel or mitoxantrone) | <ul style="list-style-type: none"> Phase 2 completed | <ul style="list-style-type: none"> Interim data presented at ASCO 2008 Genitourinary Cancers Symposium Manuscript in preparation |
| | Metastatic Castrate Resistant Prostate Cancer (OGX-011-07A) | Custirsen with docetaxel as second-line chemotherapy | <ul style="list-style-type: none"> Phase 2 completed | <ul style="list-style-type: none"> Manuscript in preparation |
| | Advanced Non-Small Cell Lung Cancer (OGX-011-05) | Custirsen with first-line chemotherapy (gemcitabine and cisplatin or gemcitabine and carboplatin) | <ul style="list-style-type: none"> Phase 2 completed | <ul style="list-style-type: none"> 2-year survival data presented February 2009 Manuscript in preparation |
| | Localized Prostate Cancer (OGX-011-04) | Custirsen with hormone ablation therapy | <ul style="list-style-type: none"> Phase 2 completed | <ul style="list-style-type: none"> Results presented at ASCO 2008 Genitourinary Cancers Symposium |
| Custirsen phase 1 | Advanced Breast Cancer (OGX-011-06) | Custirsen with docetaxel as second-line chemotherapy | <ul style="list-style-type: none"> Phase 2 completed | <ul style="list-style-type: none"> Data published in Clinical Cancer Research 2009 |
| | Localized Prostate Cancer (OGX-011-01) | Custirsen with hormone ablation therapy | <ul style="list-style-type: none"> Phase 1 completed | <ul style="list-style-type: none"> Data published in Journal of National Cancer Institute 2005 |
| | Solid Tumors (prostate, breast, NSCLC, ovarian, renal, bladder, peritoneum) (OGX-011-02) | Custirsen with docetaxel | <ul style="list-style-type: none"> Phase 1 completed | <ul style="list-style-type: none"> Data published in Clinical Cancer Research 2008 |
| OGX-427 phase 2 | Castrate Resistant Prostate Cancer | OGX-427 as monotherapy (72 patients) | <ul style="list-style-type: none"> Phase 2 ongoing. | <ul style="list-style-type: none"> Phase 2 initiated in the third quarter of 2010. |
| | Metastatic Bladder Cancer | OGX-427 with and without chemotherapy (~ 180 patients) | <ul style="list-style-type: none"> Initiation pending. | <ul style="list-style-type: none"> Expected to initiate in the second half of 2011. |
| OGX-427 phase 1 | Solid Tumors | OGX-427 with and without chemotherapy | <ul style="list-style-type: none"> Phase 1 completed | <ul style="list-style-type: none"> Final data presented at 2010 ASCO annual meeting |
| | Superficial Bladder Cancer | OGX-427 as monotherapy (~36 patients) | <ul style="list-style-type: none"> Phase 1 ongoing | <ul style="list-style-type: none"> None |
| SN2310 | Solid Tumors | SN2310 administered to heavily pre-treated patients with advanced cancer | <ul style="list-style-type: none"> Phase 1 completed | <ul style="list-style-type: none"> Enrollment and treatment completed - maximum tolerated dose determined |
| OGX-225 | Solid Tumors | OGX-225 with and without chemotherapy | <ul style="list-style-type: none"> Pre-clinical proof-of-concept studies completed | <ul style="list-style-type: none"> None |
| CSP-9222 | Solid Tumors | To be determined | <ul style="list-style-type: none"> Formulation to be determined | <ul style="list-style-type: none"> None |

- (1) In all of our prostate cancer clinical trials and in clinical practice for prostate cancer, docetaxel is administered in combination with prednisone.
- (2) We have designed two phase 3 clinical trials to evaluate the clinical benefit of custirsen in CRPC.

Overview of Market and Treatment

In North America, cancer is expected to strike slightly fewer than one in two men and slightly more than one in three women in their lifetimes and has recently surpassed heart disease as the leading cause of death in the United States. The American Cancer Society estimated that in 2010 approximately 1,529,560 new patients in the United States would be diagnosed with cancer and that there would be approximately 569,490 patient deaths attributable to cancers.

Typically, cancer treatment is given sequentially and can include hormone therapy, surgery, radiation therapy, and chemotherapy. Although a particular therapy may initially be effective, tumor cells often react to therapeutic treatment by increasing the production of proteins that afford them a survival advantage, which enable them to become resistant to therapy, multiply and spread to additional organs. As a result, many patients progress rapidly through all available therapies and ultimately die.

Our Strategy

Our objective is to develop and commercialize new cancer therapies that address resistance to therapies in cancer patients. Key elements of our strategy include:

- Gaining market approval for custirsen by conducting registration trials that demonstrate efficacy and safety, in both prostate and lung cancer, in collaboration with Teva. As a result of the Collaboration Agreement with Teva, committed funding is available for phase 3 trials in patients with CRPC to evaluate custirsen in combination with docetaxel as first-line chemotherapy, in patients with CRPC to evaluate custirsen in combination with docetaxel retreatment as second-line chemotherapy, and in patients with NSCLC to evaluate custirsen in combination with first-line chemotherapy. The prostate trials were initiated in 2010 and the NSCLC trial is expected to begin in 2011. Currently, mitoxantrone, docetaxel and cabazitaxel are approved for use in patients with advanced CRPC, but docetaxel and cabazitaxel have shown improved patient survival when compared to mitoxantrone. Currently, carboplatin, gemcitabine and cisplatin are approved for use in patients with advanced NSCLC and bevacizumab in patients with non-squamous NSCLC; bevacizumab in combination with paclitaxel and carboplatin chemotherapy has shown to improve patient survival when compared to carboplatin chemotherapy alone. Pemetrexed is also approved as a single agent in patients with advanced NSCLC after initial chemotherapy and in combination with cisplatin for the initial treatment and maintenance therapy following platinum-based therapy.
- Advancing OGX-427 by conducting clinical trials across multiple cancer indications for OGX-427, including, but not limited to, bladder cancer and CRPC. Consistent with the strategy we are following for custirsen, we intend to conduct parallel clinical trials to evaluate OGX-427 in several cancer indications and treatment combinations to accelerate assessment of this product candidate for further development.
- Developing and commercializing new cancer therapies to inhibit treatment resistance in cancer patients. We plan to leverage our expertise in development to bring new products to market as fast as possible. We intend to maintain and develop our relationship with the Vancouver Prostate Centre, and develop relationships with other research institutions in order to identify additional product candidates.
- Optimizing the development of our product candidates through use of outsourcing and internal expertise. In order to increase efficiency and lower our overhead, we outsource, and plan to continue to outsource, pre-clinical and manufacturing activities. We have chosen to establish critical product development functions in-house, including clinical trial management and regulatory affairs.

License and Collaboration Agreements

Teva Pharmaceutical Industries Ltd.

Custirsen

As discussed above, in December 2009, we, through our wholly owned subsidiary, OncoGenex Technologies, entered into the Collaboration Agreement with Teva for the development and global commercialization of custirsen (and related compounds). Pursuant to the Collaboration Agreement, Teva received the exclusive worldwide right and license to develop and commercialize any products containing custirsen and related compounds, which we refer to as the Licensed Products. We have an option to co-promote custirsen in the United States and Canada.

Under the Collaboration Agreement, Teva made upfront payments in the aggregate amount of \$50 million, and will make payments of up to \$370 million upon the achievement of developmental and commercial milestones and royalties at percentage rates ranging from the mid-teens to mid-twenties on net sales, depending on aggregate annual net sales of Licensed Products. In addition to the ongoing royalties, Teva will pay us additional one-time sales threshold royalties if certain aggregate net sales are achieved. We are required to contribute \$30 million towards the development of custirsen, which will include our personnel costs for certain development activities.

Teva and we have developed a Clinical Development Plan under which the following three phase 3 clinical trials will be initiated:

- The phase 3 SATURN trial to evaluate a durable pain palliation benefit for custirsen in combination with docetaxel retreatment as second-line chemotherapy in approximately 300 patients with CRPC, which was initiated in the second quarter of 2010.
- The phase 3 SYNERGY trial to be conducted in approximately 125 cancer centers to evaluate a survival benefit for custirsen in combination with first-line docetaxel treatment in approximately 800 patients with CRPC, which was initiated in the third quarter of 2010.
- A phase 3 clinical trial to evaluate a survival benefit for custirsen in combination with first-line chemotherapy in patients with NSCLC, which is expected to be initiated in 2011 following successful manufacturing of additional custirsen drug product and completion of DDI studies. The trial is expected to enroll approximately 950 patients. The study protocol will include two futility assessments and one interim analysis for efficacy. The first-line chemotherapy regimen has been selected as carboplatin and paclitaxel.

Teva will be responsible for conducting any other trials and development work necessary to obtain required regulatory approvals. We may assume some of these activities if assigned by the Joint Steering Committee, but Teva would be responsible for all associated costs. The Joint Steering Committee will oversee the development and regulatory approval of any Licensed Product. Funding responsibilities for the Clinical Development Plan will be allocated as follows:

- We will be required to contribute \$30 million towards the development of custirsen, which will include our personnel costs for certain development activities.
- Teva will be required to fund all other expenses.

In addition to the development costs noted above, Teva is also responsible for all costs relating to product commercialization, including any costs incurred in relation to our co-promotion option, except for start-up costs in advance of commercialization.

Teva was also granted the first right to file, prosecute and maintain, and enforce at its expense, the patent rights associated with custirsen. If Teva elects, however, not to, or fails to, file, prosecute and maintain, and enforce, the patent rights associated with custirsen, we retain the right to assume responsibility for such activities.

The Collaboration Agreement will remain in effect, on a country-by-country basis, until the expiration of Teva's obligation to pay royalties on sales of the Licensed Product in such country (or earlier termination under its terms). Commencing after the completion of all three phase 3 clinical trials set forth in the Clinical Development Plan, or upon early termination due to a material adverse change in our patent rights related to custirsen or safety issues or "futility," as defined in the Collaboration Agreement, Teva may terminate the Collaboration Agreement in its sole discretion upon three months' advance notice if notice is given prior to regulatory approval of a Licensed Product, and upon six months' advance notice if notice is given after such regulatory approval. If Teva terminates the Collaboration Agreement for any reason other than an adverse change in custirsen patent rights, safety issues or "futility" determination as previously described, it will remain responsible for paying any remaining costs of all three phase 3 clinical trials, except for specified company development expenses. Either party may terminate the Collaboration Agreement for an uncured material breach by the other party or upon the bankruptcy of either party. If the Collaboration Agreement is terminated other than for an uncured material breach by Teva, we will pay Teva a royalty on sales of Licensed Products. The percentage rates of such royalties (which are in the single digits) depend on whether termination occurs prior to the first regulatory approval in the United States or a primary European market or after one of these approvals. These royalties would expire on a country-by-country basis on the earlier of 10 years after the first commercial sale of a Licensed Product and certain thresholds related to generic competition.

In the event of a change of control of OncoGenex and within 90 days of such a change of control, Teva may, in its sole discretion, terminate the Joint Steering Committee or terminate the co-promotion option if not then exercised by us or if exercised but not yet executed by us, or terminate the co-promotion option if in its commercially reasonable opinion co-promotion with our successor would be materially detrimental to Teva's interests.

Isis Pharmaceuticals, Inc.

Custirsen

In November 2001, OncoGenex Technologies entered into an agreement with Isis, referred to as the Original Isis Agreement, to jointly develop and commercialize custirsen. This strategic relationship provided us with access to Isis' proprietary position in second-generation antisense chemistry for use in custirsen, and Isis' expertise in developing antisense therapeutics, including its manufacturing expertise, and allowed us to develop custirsen cost efficiently. Under the Original Isis Agreement, we paid 65%, and Isis paid 35%, of the costs and revenue resulting from the development and commercialization of custirsen. On July 2, 2008, we and Isis amended the Original Isis Agreement or the Amended Isis Agreement, pursuant to which we became solely responsible for the costs and development of custirsen, and, in turn, assumed certain financial obligations to Isis, primarily related to sharing revenue received by us from a third party as a result of a licensing transaction.

Licensing revenue that are based on a percentage of net sales of a licensor are defined as Royalty Revenue, while other licensing revenue, with the exception of fair market value of equity and reimbursement of research and development expenses, are defined as Non-Royalty Revenue. We will pay Isis royalties comprised of a base percentage of net sales of custirsen and a percentage of Royalty Revenue we receive in excess of a certain threshold up to a certain cap. The amount of the royalties payable to Isis depends on whether Isis owes royalty payments to third parties pursuant to its license agreements with such parties. Based on the Royalty Revenue we are eligible to receive as a result of the royalty rates established in our collaboration with Teva, our total royalty obligations to Isis will range between 6.38% and 7.00% of net sales of custirsen by Teva during the period Isis owes royalty payments to third parties, and between 3.88% and 4.50% when those third-party obligations of Isis have expired, which we expect to occur in 2017.

We paid Isis \$10 million in January 2010 as Isis' share of Non-Royalty Revenue received by us in December 2009 in connection with our Collaboration Agreement with Teva. We do not anticipate making any further payments to Isis in 2011 under the terms of the Amended Isis Agreement.

In addition, we are required to pay Isis 30% of all Non-Royalty Revenue we receive. Isis has disclosed in its Securities and Exchange Commission, or SEC, filings that it is entitled to receive 30% of the up to \$370 million in milestone payments we may receive from Teva as part of the Collaboration Agreement; however, we believe that certain of the milestone payments related to sales targets may qualify as Royalty Revenue, and therefore be subject to the lesser payment obligations discussed above. We cannot provide any assurance that we will be entitled to

receive these milestone payments or, if we are, that the applicable amount payable to Isis will be less than 30%. Neither we nor Isis can pursue the development or commercialization of any antisense compound for clusterin outside of the Amended Isis Agreement. This arrangement will continue until custirsen is no longer being developed or commercialized or until the Amended Isis Agreement is earlier terminated due to an uncured material breach.

To facilitate the execution and performance of the Collaboration Agreement, we and Isis agreed to amend the Amended Isis Agreement, which amendment provides that, among other things, if OncoGenex is the subject of a change of control with a third party, where the surviving entity immediately following such change of control has the right to develop and sell the product, then (i) a milestone payment of \$20 million will be due and payable to Isis 21 days following the first commercial sale of the product in the United States and (ii) unless such surviving entity had previously sublicensed the product and a royalty rate payable to Isis by us has been established, the applicable royalty rate payable to Isis will thereafter be the maximum amount payable under the Amended Isis Agreement. Any non-royalty milestone amounts previously paid will be credited towards the \$20 million milestone if not already paid. As a result of the \$10 million milestone payment paid to Isis in relation to the Collaboration Agreement, the remaining amount owing in the event of change of control discussed above is a maximum of \$10 million. As we have now licensed the product to Teva and established a royalty rate payable to Isis, no royalty rate adjustments would apply if Teva acquires OncoGenex and is the surviving entity.

OncoGenex Technologies has agreed to indemnify Isis and persons affiliated with Isis against liabilities resulting from the development, manufacture, use, handling, storage, sale or other commercialization or disposition of custirsen caused by OncoGenex Technologies' or its licensees' or sublicensees' gross negligence or willful misconduct, or caused by OncoGenex Technologies' material breach of the Original Isis Agreement, as amended.

OGX-427

In January 2005, OncoGenex Technologies entered into a collaboration and license agreement with Isis to jointly identify antisense compounds designed to inhibit the production of proteins encoded by specified gene targets. OncoGenex Technologies is solely responsible for all product development activities for antisense compounds under this collaboration. This relationship provides OncoGenex Technologies with access to Isis' proprietary position in second generation antisense chemistry for use in specified products. OncoGenex Technologies was permitted to designate up to two collaboration gene targets for collaborative research, development and commercialization. In April, 2005, Hsp27 was confirmed as a collaboration gene target, and we and Isis jointly designed and screened antisense compounds for this gene target. OncoGenex Technologies' right to designate a second collaboration gene target expired on January 5, 2007.

Under the terms of the agreement, in the event that OncoGenex Technologies abandons OGX-427, Isis may elect to unilaterally continue development of OGX-427, in which case it must provide Isis with a worldwide license or sublicense (as the case may be) of its relevant technology solely to develop and commercialize OGX-427 in exchange for a royalty on Isis' sales of OGX-427.

In consideration for the grant of rights related to OGX-427, on May 5, 2005 OncoGenex Technologies issued Isis a promissory note, which was converted into shares of OncoGenex Technologies that were subsequently exchanged in the Arrangement for 53,200 shares of OncoGenex Pharmaceuticals common stock. Under the terms of the agreement, OncoGenex Technologies may be obligated to make certain milestone payments to Isis contingent upon the occurrence of certain clinical development and regulatory events related to OGX-427. It is also obligated to pay to Isis certain milestone payments, as well as certain royalties on net sales for OGX-427, with the amount of royalties depending on whether third-party royalty payments are owed. We paid Isis \$750,000 in 2010 upon the initiation of a phase 2 clinical trial of OGX-427 in patients with CRPC. We do not anticipate making any royalty payments to Isis under the terms of the agreement in 2011.

OncoGenex Technologies has agreed to indemnify Isis and certain persons affiliated with Isis against liabilities caused by its and its licensees' and sublicensees' gross negligence or willful misconduct, its material breach of the collaboration and license agreement, and the manufacture, use, handling, storage, sale or other disposition of OGX-427 that is sold by OncoGenex Technologies or its affiliates, agents or sublicensees.

The term of the collaboration and license agreement will continue for each product until the later of 10 years after the date of the first commercial sale of OGX-42 and the expiration of the last to expire of any patents required to be licensed in order to use or sell OGX-427, unless OncoGenex Technologies abandons OGX-427 and Isis does not elect to unilaterally continue development of OGX-427.

University of British Columbia

Custirsen

Efforts conducted at the Vancouver Prostate Centre are owned and managed by the University of British Columbia, or UBC. Under a license agreement entered into in November 2001, as amended, UBC granted to OncoGenex Technologies an exclusive, worldwide license to commercialize its existing intellectual property and any improvements related to clusterin. This technology, combined with Isis' second-generation antisense chemistry, is our product candidate custirsen. In connection with entering into the license agreement, we issued to UBC shares of OncoGenex Technologies that were exchanged in the Arrangement for 15,243 shares of OncoGenex Pharmaceuticals common stock. OncoGenex Technologies agreed to pay UBC certain royalties on milestones and the revenue from sales of custirsen. OncoGenex Technologies is obligated to pay UBC CAD\$2,000 in annual maintenance fees. In January 2010, we paid UBC CAD\$333,333 as a result of upfront payments we received from Teva in December 2009 in connection with our Collaboration Agreement. The occurrence and receipt of future milestone payments and the generation of royalty revenue are uncertain.

OncoGenex Technologies agreed to use its commercially reasonable efforts to develop and exploit the licensed technology and any improvements. OncoGenex Technologies also agreed to promote, market and sell any resulting products and to cause the market demand for such products to be satisfied. OncoGenex Technologies is permitted to sublicense the technology, subject to certain consent and other requirements. OncoGenex Technologies directs patent prosecution and is responsible for all fees and costs related to the preparation, filing, prosecution and maintenance of the patent rights underlying the license agreement. OncoGenex Technologies indemnifies UBC and certain of UBC's affiliates against liability arising out of the exercise of any rights granted pursuant to the agreement. The term of the agreement will expire on the later of 20 years from its effective date and the expiration of the last patent licensed under the agreement. Subject to patent term extensions, the current granted patent for custirsen expires in the United States in 2021 and would expire in all other jurisdictions by 2020. OncoGenex Technologies has additional patent applications pending that, if issued and not invalidated, may extend the expiration date of the last-to-expire patents. OncoGenex Technologies may also file additional patent applications related to clusterin that could potentially extend the expiration date of the last to expire patent in this area.

OGX-427

Under a license agreement entered into in April 2005, as amended, UBC granted to OncoGenex Technologies an exclusive, worldwide license to commercialize its existing intellectual property and any improvements related to Hsp27. This technology, combined with Isis' second-generation antisense chemistry, is our product candidate OGX-427. In connection with entering into the license agreement, OncoGenex Technologies issued to UBC shares that were exchanged in the Arrangement for 6,533 shares of OncoGenex Pharmaceuticals common stock. OncoGenex Technologies also agreed to pay UBC certain royalties on the revenue from sales of OGX-427, which royalty rate may be reduced in the event that OncoGenex Technologies must pay additional royalties under patent licenses entered into with third parties in order to manufacture, use or sell OGX-427. OncoGenex Technologies may be obligated to make milestone payments to UBC contingent upon the occurrence of certain clinical development and regulatory events related to OGX-427. OncoGenex Technologies is obligated to pay UBC CAD\$2,000 in annual maintenance fees. We paid UBC CAD\$100,000 in 2010 in relation to the initiation of a phase 2 trial of OGX-427 in patients with CRPC. The occurrence and receipt of upfront and milestone payments and the generation of royalty revenue are uncertain.

Subject to certain exceptions, OncoGenex Technologies agreed to use its commercially reasonable efforts to (i) develop and exploit the licensed technology and any improvements and (ii) promote, market and sell any resulting products. OncoGenex Technologies is permitted to sublicense the technology, subject to certain consent and other requirements. OncoGenex Technologies directs patent prosecution and is responsible for all fees and costs related to the preparation, filing, prosecution and maintenance of the patent rights underlying the license agreement.

OncoGenex Technologies indemnifies UBC and certain of UBC's affiliates against liability arising out of the exercise of any rights granted pursuant to the agreement. The term of the agreement will expire on the later of 20 years from its effective date and the expiration of the last patent licensed under the agreement. Depending on the outcome of the pending patent applications in the licensed patent family, and subject to any applicable patent term extensions, a patent issuing from this family would expire in all jurisdictions by 2023. OncoGenex Technologies may also file additional patent applications related to Hsp27 that could potentially extend the expiration date of the last to expire patent in this area.

OGX-225 and CSP-9222

Pursuant to the terms of our third-party license agreements relating to OGX-225 and CSP-9222, we will owe payments upon the completion of product development milestones, as well as royalties on product sales. We do not anticipate making any milestone or royalty payments to third parties under the terms of these agreements in 2011.

We are also obligated to pay annual license fees to third parties with respect to these product candidates. These amounts are disclosed in "Management's Discussion and Analysis of Financial Condition and Results of Operations – Contractual Obligations," which is incorporated herein by reference.

Summary of Milestone Obligations by Product Candidate

The following table sets forth the milestones that we may be required to pay to third parties under the license and collaboration agreements described above. As described above, we will also be required to pay certain revenue-based royalties with respect to each of our product candidates.

| Milestone Obligations to Third Parties | Amount Payable |
|---|-----------------------------|
| Custirsen | 31% of non-royalty revenue |
| OGX-427 | Up to \$5,005,000 (1)(2)(3) |
| OGX-225(3) | Up to \$4,347,000 (2)(3) |
| CSP-9222 | Up to \$14,000,000 (4) |

- (1) Additional milestone payments may be required in respect of OGX-427 for product approvals outside the field of oncology.
- (2) Payable in connection with initiating certain clinical trials and obtaining certain market approvals.
- (3) Certain milestone payments are payable in Canadian dollars, which are translated based on the December 31, 2010 exchange rate of US\$1.00 = CAD\$0.9946, and rounded to the nearest \$1,000.
- (4) Payable in connection with initiating certain clinical trials, making certain regulatory filings and obtaining certain market approvals.

Government Regulations

Drug Approval Process

Regulation by governmental authorities in the United States and other countries is a significant factor in our ongoing research and development activities and in the production and marketing of our products. In order to undertake clinical trials and to produce and market products for human use, mandatory procedures and safety standards established by the FDA in the United States and by comparable agencies in other countries must be followed.

The standard process before a pharmaceutical agent may be marketed includes the following steps:

- pre-clinical studies, including laboratory evaluation and animal studies to test for initial safety and efficacy;

- submission to national health authorities of an IND or Clinical Trials Application, or CTA, or equivalent dossier, which must be accepted by each national health authority before human clinical trials may commence in that country;
- adequate and well-controlled clinical trials to establish the safety and efficacy of the drug in its intended population and use(s);
- submission to appropriate national and/or regional regulatory health authorities of a New Drug Application or NDA, or equivalent marketing authorization application, which application is not automatically accepted for review; and
- approval by appropriate regulatory health authorities of the marketing authorization application prior to any commercial sale or shipment of the drug in each country or jurisdiction.

As part of the regulatory health authority approval for each product, the drug-manufacturing establishment is subject to inspection by the FDA and must comply with current Good Manufacturing Practices, or cGMP, requirements applicable to the production of pharmaceutical drug products. The facilities, procedures and operations of manufacturers must be determined to be adequate by the FDA before product approval.

Preclinical studies include laboratory evaluation of the active drug substance and its formulation in animals to assess the potential safety and efficacy of the drug and its formulation. Prior to initiating the first clinical testing of a new drug product candidate, the results of the pre-clinical studies are submitted to regulatory health authorities as part of an IND or CTA, and must be accepted before the proposed clinical trial(s) can begin.

Clinical trials for cancer therapeutics involve the administration of the investigational drug to patients with a defined disease state, under the supervision of a qualified principal investigator.

Clinical trials are conducted in accordance with protocols that detail the parameters to be used to monitor safety and efficacy. Each protocol is submitted to regulatory health authorities as part of the IND or CTA in each country where clinical trials are to be conducted. Each clinical trial is approved and monitored by independent Institutional Review Boards, or IRB, or Ethics Committees who consider ethical factors, informed consent documents, the safety of human subjects and the possible liability of the institutions conducting a clinical trial. The IRB or Ethics Committee may require changes in the clinical trials protocol, which may delay initiation or completion of the trial.

Clinical trials typically are conducted in three sequential phases, although the phases may overlap. In phase 1, the initial introduction of the drug to humans, the drug is tested for safety and clinical pharmacology. Phase 2 trials involve more detailed evaluation of the safety and efficacy of the drug in patients with a defined disease. Phase 3 trials consist of large-scale evaluations of safety and efficacy of the investigational drug compared to accepted standard therapy in a defined disease.

The process of completing clinical testing and obtaining regulatory approval for a new product takes a number of years and requires the expenditure of substantial resources. The FDA, or another regulatory authority, may not grant approval on a timely basis, if at all. We may encounter difficulties in securing regulatory approval or unanticipated costs, which may delay or preclude the commercialization of our product candidates. For instance, regulatory authorities may conclude that the data submitted in a marketing authorization application, such as a NDA, are not adequate to support approval of a pharmaceutical agent and may require further clinical and pre-clinical testing, re-submission of the application, and further review. Even after initial approval has been obtained, an indication may be limited or conditioned on the provision of further studies to support an approved indication, and further studies will be required to gain approval for the use of a product for clinical indications other than those for which the product was approved initially. Also, regulatory authorities require post-marketing surveillance programs to monitor the drug product's side effects.

Marketing of pharmaceutical products outside of the United States is subject to regulatory requirements that vary from country to country. In the European Union, the general trend has been towards coordination of common

standards for clinical testing of new drug products. Centralized approval in the European Union is coordinated through the EMA.

The level of regulation outside the United States and the European Union varies widely. The time required to obtain regulatory approval from regulatory agencies in each country may be longer or shorter than that required for FDA or EMA approval. In addition, in certain markets, reimbursement is subject to governmentally mandated prices.

Contract Research Agreements

Consistent with our strategy to outsource certain product development activities, we have established contract research agreements for pre-clinical, manufacturing and some data management services. We choose which business or institution to use for these services based on their expertise, capacity and reputation and the cost of the service.

We also provide quantities of our product candidates to academic research institutions to investigate the mechanism of action and evaluate novel combinations of product candidates with other cancer therapies in various cancer indications. These collaborations expand our research activities for product candidates with modest contribution from us.

Research and Development Expenditures

For the years ended December 31, 2010, 2009 and 2008, our expenditures for research and development activities were \$18.5 million, \$20.2 million, and \$7.8 million, respectively. Such research and development expenses primarily related to the advancement of our lead product candidate, custirsen.

Manufacturing

We do not own facilities for the manufacture of materials for clinical or commercial use. We rely and expect to continue to rely on contract manufacturers to manufacture our product candidates in accordance with cGMP, for use in clinical trials, as well as for process development as required. We will ultimately depend on contract manufacturers for the manufacture of our products, when and if we have any, for commercial sale.

To date, all active pharmaceutical ingredient, or API, for custirsen has been manufactured by Isis or Avecia Biotechnology Inc., or Avecia, on a purchase order basis, under cGMP. Drug product manufactured from API has been performed by Formatech, Inc., Pyramid Laboratories Inc., and Laureate Pharma, Inc. in several separate manufacturing campaigns, pursuant to purchase orders or short-term contracts with us or our licensors. For OGX-427, all API has been manufactured for us by Avecia and all drug product has been manufactured for us by Laureate Pharma, Inc., in each case pursuant to a purchase order or short-term contract that has been fulfilled. If our product candidates are approved for commercial sale in the future, we may be required to contract with larger contract manufacturers that can meet higher commercial drug quantities.

Intellectual Property

Our success depends in part on the ability of us and our collaborators to obtain and maintain proprietary protection for our product candidates, technology and know-how, prevent others from infringing the proprietary rights for our product candidates, and operate without infringing on the proprietary rights of others.

Patents

We have a license from UBC and ISIS to use, make, have made, or make improvements upon custirsen, OGX-427 and OGX-225. In addition, Isis has assigned a three-member patent family related to clusterin antisense to OncoGenex Technologies, and we have a pending family of applications on an OGX-427 formulation.

As discussed above, certain intellectual property rights relating to custirsen have been sublicensed exclusively to Teva, which has subsequently assumed direct control of the prosecution of those rights as custirsen is developed.

We have been granted non-exclusive rights to all intellectual property owned, licensed or otherwise controlled by Isis as of the date of its agreements with Isis that relate to second-generation antisense chemistry and that are required for its product candidates (such as custirsen, OGX-427 and OGX-225). Isis is generally restricted from engaging in research, development and commercialization of antisense compounds related to clusterin, Hsp27, IGFBP-5 and IGFBP-2, other than as provided in the collaboration and license agreement related to each target. Isis directs patent prosecution and is responsible for all fees and costs related to the preparation, filing, prosecution and maintenance of these patent rights, which extend to numerous jurisdictions throughout the world. Individual patents have terms of protection depending on the laws of the countries in which the applications are made.

SN2310 intellectual property is owned by us, and intellectual property relating to CSP-9222 is licensed from Bayer.

We direct patent prosecution, and are responsible for all fees and costs related to the preparation, filing, prosecution and maintenance of the patent rights for intellectual property under license from UBC and Bayer covering OGX-427, OGX-225 and CSP-9222. We file patent applications for this intellectual property in the United States, Canada, Europe (through the European Patent Office), Japan and other jurisdictions.

Composition of matter patents covering custirsen, OGX-427, SN2310, and CSP-9222 have issued in the United States and certain other jurisdictions. Additional patent applications covering all of these products, as well as other technologies, are pending in the United States and certain other countries.

Generally, patents issued in the United States are effective for 20 years from the earliest non-provisional filing date, if the application from which the patent issues was filed on or after June 8, 1995 (otherwise the term is the longer of 17 years from the issue date and 20 years from the earliest non-provisional filing date). The duration of patent terms for non-U.S. patents is typically 20 years from the earliest corresponding national or international filing date. Our licensed UBC patent estate, based on those patents and applications existing now and expected by us to issue, will expire in years ranging from 2020 to 2024, which dates do not include extensions that may be available. Our SN2310 and CSP-9222 patent terms will expire starting from 2023. Patent term extensions, specifically to make up for regulatory delays, are available in the United States, Europe and Japan. Although we believe that some or all of our product candidates will meet the criteria for patent term extensions, we can provide no assurance that we will obtain such extensions.

We also rely on unpatented trade secrets, proprietary know-how and continuing technological innovation, which we seek to protect, in part, by confidentiality agreements with our corporate partners, collaborators, employees and consultants in our drug development research. We can provide no assurance that these agreements will not be breached, that we will have adequate remedies for any breach, or that our trade secrets or know-how will not otherwise become known or be independently discovered by competitors. Further, we can provide no assurance that we will be able to protect our trade secrets or that others will not independently develop substantially equivalent proprietary information and techniques.

Trademarks

We own two approved Canadian trademarks: OncoGenex™ and Bringing Hope to Life™. We have registered the corresponding trademark Bringing Hope to Life® in the United States, and applied for OncoGenex™ in the United States. We are aware of a company called Tikvah Therapeutics of Atlanta, Georgia, which has filed Bringing Hope to Life™ for different goods and services on an intent-to-use basis. We and Tikvah have agreed not to oppose or prevent the other from establishing its respective marks for its respective goods.

Registrations and applications relating to the SONUSTM trademarks are no longer being maintained.

We can provide no assurance that our registered or unregistered trademarks or trade names will not infringe upon third-party rights or will be acceptable to regulatory agencies.

Competition

The development and commercialization of new drugs is highly competitive. Our major competitors are large pharmaceutical, specialty pharmaceutical and biotechnology companies in the United States, Canada and abroad. Many oncology drugs in clinical trials are being developed for the four primary cancer indications: lung, breast, colorectal, and prostate cancer. Certain of these drugs are, like custirsen, OGX-427 and OGX-225, designed to interfere with mechanisms potentially involved with treatment resistance. If new drugs targeting mechanisms of treatment resistance are approved for sale for the indications that we are targeting in advance of our product candidates, or even after their commercialization, it may reduce the market's interest in our product candidates. We are aware of several other companies developing therapeutics, whether antisense or otherwise, that seek to promote tumor cell death by inhibiting proteins believed to promote cell survival. Our competitors may seek to identify gene sequences, protein targets or antisense chemistry different from ours, and outside the scope of our intellectual property protection, to develop antisense therapeutics that serve the same function as our product candidates. Our competitors may also seek to use mechanisms other than antisense to inhibit the proteins that our product candidates are designed to inhibit.

Some of our product candidates' development plans include pursuing prostate cancer indications. Substantial advancements in the treatment of prostate cancer have occurred in the past two years and new products have been approved for marketing on the basis of showing a survival advantage. Many of our existing and potential competitors have substantially greater financial resources and expertise in manufacturing and developing products, conducting clinical trials, obtaining regulatory approvals, and marketing than we do. These entities also compete with us in recruiting and retaining qualified scientific and management personnel, as well as in acquiring products and technologies complementary to our programs. Standard treatments vary considerably by cancer indication, and new drugs may be more effective in treating one cancer indication than another. In addition, cancer is a difficult disease to treat and it is likely that no one therapeutic will replace all other therapies in any particular indication. Therapeutic strategies for treating cancer are increasingly focused on combining a number of drugs in order to yield the best results. Since custirsen and OGX-427 are intended to be used in multiple cancer indications and target the tumors' adaptive survival mechanisms, these drugs will potentially be synergistic with many new and currently marketed therapies. Our ability to compete successfully will depend largely on our ability and, where applicable, the ability of our collaborators to:

- establish that our product candidates are well tolerated and result in a clinical benefit when administered to cancer patients;
- establish that our product candidates address significant unmet needs for patients resulting in prioritization of our product candidates over other treatment options;
- advance the development of our lead programs, including the enrollment of patients for our clinical trials;
- gain regulatory approval for our product candidates in their respective first indications as well as expand into additional indications;
- commercialize our lead product candidates successfully, including convincing physicians, insurers and other third-party payors of the advantages of our products, when and if it has any, over current therapies;
- obtain intellectual property protection and protect the exclusivity for our product candidates and products, when and if we have any; and
- acquire other product candidates to expand our pipeline.

Employees

We have a total of 27 employees, of whom 17 are engaged in research and development functions, including clinical development, regulatory affairs and manufacturing, and 10 are engaged in general and administrative functions, including administration, corporate communications, accounting and finance.

All of our employees have entered into non-disclosure agreements regarding our intellectual property, trade secrets and other confidential information. None of our employees are represented by a labor union or covered by a collective bargaining agreement, nor have we experienced any work stoppages. We believe that we maintain satisfactory relations with our employees.

From time to time, we also use outside consultants to provide advice on our clinical development plans, research programs, administration and potential acquisitions of new technologies.

Company Information

We were incorporated in California in October 1991 and subsequently reorganized as a Delaware corporation in September 2005. Our principal executive offices are located 1522 - 217th Place SE, Suite 100, Bothell, Washington 98021, and our telephone number is (425) 686-1500.

On August 21, 2008, pursuant to the Arrangement, OncoGenex Technologies Inc. became our wholly owned subsidiary. OncoGenex Technologies was incorporated under the federal laws of Canada in May 2000. OncoGenex, Inc., the subsidiary of OncoGenex Technologies, was incorporated under the laws of Washington in August 2005 and was dissolved pursuant to Articles of Dissolution filed on July 1, 2009.

Available Information

We maintain a website at <http://www.oncogenex.com>. The information contained on or accessible through our website is not part of this Annual Report on Form 10-K. Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to reports filed or furnished pursuant to Sections 13(a) and 15(d) of the Securities Exchange Act of 1934, as amended, or Exchange Act, are available free of charge on our website as soon as reasonably practicable after we electronically file such reports with, or furnish those reports to, the SEC.

ITEM 1A. RISK FACTORS

Risks Related to Our Business

Investing in our common stock involves a high degree of risk. You should consider carefully the risks and uncertainties described below, together with all of the other information contained in this Annual Report on Form 10-K, before deciding to invest in our common stock. If any of the following risks materialize, our business, financial condition, results of operation and future prospects will likely be materially and adversely affected. In that event, the market price of our common stock could decline and you could lose all or part of your investment.

Risks Related to Our Business

We have a limited operating history, have incurred losses since inception and anticipate that we will continue to incur losses for the foreseeable future. We have never had any products available for commercial sale and we may never achieve or sustain profitability.

We are a clinical-stage biopharmaceutical company with a limited operating history. We are not profitable and have incurred losses in each year since our inception. We have never had any products available for commercial sale and we have not generated any revenue from product sales nor do we anticipate that we will generate revenue from product sales in the foreseeable future. Our only revenue to date has been collaboration revenue under our Collaboration Agreement with Teva. We have not yet submitted any products for approval by regulatory authorities and we continue to incur research and development and general and administrative expenses related to our operations. We expect to continue to incur losses for the foreseeable future, and we expect these losses to increase as we continue our research activities and conduct development of, and seek regulatory approvals for, our product candidates, and prepare for and begin to commercialize any approved products. If our product candidates fail in clinical trials or do not gain regulatory approval, or if our product candidates do not achieve market acceptance, we may never become profitable. Even if we achieve profitability in the future, we may not be able to sustain profitability in subsequent periods.

We are highly dependent on the success of our lead product candidate, custirsen, and we cannot give any assurance that custirsen, or any of our other product candidates, will receive regulatory approval or will be successfully commercialized.

Custirsen has been evaluated in five phase 2 clinical trials, the results of which were previously disclosed. If competitive products developed by third parties show significant benefit in the cancer indications in which we are developing our product candidates, any planned supportive or primary registration trials may be delayed, altered or not initiated and custirsen may never receive regulatory approval. In order to market custirsen, we and Teva must, among other things, conduct additional clinical trials, including phase 3 or registration clinical trials, to demonstrate safety and efficacy. We have initiated two registration trials with custirsen and are intending to initiate a third registration trial in 2011. OGX-427 and SN2310 have been evaluated in humans, although we have very limited safety data and have not yet established efficacy in humans. We have completed enrollment in the phase 1 clinical trial of SN2310 and the dose limiting toxicity that defined a maximum tolerated dose in this heavily pretreated patient population, as expected, was significant neutropenia. Additional clinical trials will be required for OGX-427 and SN2310 to establish the safety and efficacy of this product candidate. Neither OGX-225 nor CSP-9222 has been tested in humans. Our pre-clinical testing of these product candidates may not be successful and we may not be able to clinically evaluate them. Our clinical development programs for our product candidates may not receive regulatory approval either if such product candidates fail to demonstrate that they are safe and effective in clinical trials and consequently fail to obtain necessary approvals from the FDA, or similar non-U.S. regulatory agencies, or if we have inadequate financial or other resources to advance these product candidates through the clinical trial process. Any failure to obtain regulatory approval of custirsen or our other product candidates could have a material and adverse effect on our business.

We depend on our collaborative relationship with Teva to further develop and commercialize custirsen, and if our relationship is not successful or is terminated, we may not be able to effectively develop and/or commercialize custirsen, which would have a material adverse effect on our business.

We depend on Teva to collaborate with us to develop and globally commercialize custirsen. Furthermore, under the Collaboration Agreement, we and Teva must agree on any changes to the Clinical Development Plan for custirsen. As a result of our dependence on Teva, the eventual success or commercial viability of custirsen is largely beyond our control. The financial returns to us, if any, under the Collaboration Agreement depend in large part on the achievement of development and commercialization milestones, plus a share of any revenue from sales. Therefore, our success, and any associated financial returns to us and our investors, will depend in large part on Teva's performance under the Collaboration Agreement. We are subject to a number of additional specific risks associated with our dependence on our collaborative relationship with Teva, including:

- adverse decisions by Teva or the Joint Steering Committee regarding the development and commercialization of custirsen;
- possible disagreements as to the timing, nature and extent of our development plans, including clinical trials or regulatory approval strategy;
- loss of significant rights if we fail to meet our obligations under the Collaboration Agreement;
- our limited control over clinical trials of custirsen;
- changes in key management personnel at Teva that are members of the Joint Steering Committee; and
- possible disagreements with Teva regarding the Collaboration Agreement or ownership of proprietary rights.

If we and Teva are unable to reach an agreement under the Clinical Development Plan, or if either we or Teva fail to perform our respective obligations or effectively manage our relationship, any clinical trial, regulatory approval or development progress could be significantly delayed or halted, could result in costly or time-consuming litigation or arbitration and could have a material adverse effect on our business.

Decisions by Teva to either reduce or eliminate its participation in the oncology field, to emphasize other competitive agents currently in its portfolio, or to add additional competitive agents to its portfolio could result in a decision to terminate the Collaboration Agreement, in which event, among other things, we may be responsible for paying any remaining costs of all three phase 3 clinical trials. Any such termination could adversely affect the timing and extent of our development and commercialization activities, which could cause significant delays and funding shortfalls for those activities and seriously harm our business.

Clinical trials may not demonstrate a clinical benefit of our product candidates.

Positive results from pre-clinical studies and early clinical trials, including those results from the custirsen clinical trials conducted to date, should not be relied on as evidence that later-stage or large-scale clinical trials will succeed. We will be required to demonstrate with substantial evidence through well-controlled clinical trials that our product candidates are safe and effective for use in a diverse population before we can seek regulatory approvals for their commercial sale. Success in early clinical trials does not mean that future clinical trials will be successful because product candidates in later-stage clinical trials may fail to demonstrate sufficient safety and efficacy to the satisfaction of the FDA and other non-U.S. regulatory authorities despite having progressed through initial clinical trials.

Even after the completion of our planned phase 3 clinical trials, the FDA or other non-U.S. regulatory authorities may disagree with our clinical trial design and our interpretation of data, and may require us to conduct additional clinical trials to demonstrate the efficacy of our product candidates.

Our clinical trials may be suspended or terminated at any time, including by the FDA, other regulatory authorities, the IRB overseeing the clinical trial at issue, by a clinical trial site or investigator, by Teva in the case of custirsen, or by us. Any failure or significant delay in completing clinical trials for our product candidates could materially harm our financial results and the commercial prospects for our product candidates.

We do not know whether any of our currently planned clinical trials for custirsen or OGX-427 will proceed or be completed on schedule, if at all, or, with respect to our other product candidates, whether we will be able to initiate any future pre-clinical studies or clinical trials, as applicable, beyond those currently planned. The completion or commencement of future pre-clinical studies or clinical trials could be substantially delayed or prevented by several factors, including:

- limited number of, and competition for, suitable patients with the particular types of cancer required for enrollment in our clinical trials;
- limited number of, and competition for, suitable sites to conduct clinical trials;
- decrease in Teva's level of focus and efforts to develop custirsen;
- introduction of new product candidates to the market in therapeutic areas similar to those that we are developing our product candidates;
- concurrent evaluation of new investigational product candidates in therapeutic areas similar to those that we are developing our product candidates;
- delay or failure to obtain the FDA's or non-U.S. regulatory agencies' approval or agreement to commence a clinical trial, including our phase 3 or registration clinical trials or amendment of those trials under an SPA;
- delay or failure to obtain required future additional funding, when needed, through private or public offerings of our equity securities, debt financings, or the execution of a licensing, partnership or collaboration agreement with a third party for any of our product candidates;
- delay or failure to obtain sufficient manufacturing supply of custirsen;
- delay or failure to obtain sufficient supplies of the product candidate for our clinical trials;
- delay or failure to reach agreement on acceptable clinical trial agreement terms or clinical trial protocols with prospective sites or investigators; and
- delay or failure to obtain the approval of the IRB to conduct a clinical trial at a prospective site.

The completion of our clinical trials currently in progress could also be substantially delayed or prevented by several factors, including:

- slower than expected rates of patient recruitment and enrollment;
- failure of patients to complete the clinical trial;
- unforeseen safety issues;
- lack of efficacy evidenced during clinical trials;
- termination of our clinical trials by one or more clinical trial sites or investigators;
- inability or unwillingness of patients or medical investigators to follow clinical trial protocols;
- inability to monitor patients adequately during or after treatment;
- introduction of competitive products that may impede our ability to retain patients in clinical trials;
- delay or failure to obtain sufficient manufacturing supply of custirsen; and
- delay or failure to obtain future additional funding through private or public offerings of our equity securities, debt financings, or the execution of a licensing, partnership or collaboration agreement with a third party for any of our product candidates in the event of material unforeseen costs relating to our clinical trials currently in progress.

Our clinical trials may be suspended or terminated at any time by the FDA, other regulatory authorities, the IRB overseeing the clinical trial at issue, any of our clinical trial sites with respect to that site, or us. Any failure or significant delay in completing clinical trials for our product candidates could materially harm our financial results and the commercial prospects for our product candidates.

We rely, in part, on third parties to conduct clinical trials for our product candidates and plan to rely on third parties to conduct future clinical trials. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may be unable to obtain regulatory approval for or commercialize our current and future product candidates.

To implement our product development strategies, we rely on third parties, such as collaborators, contract research organizations, medical institutions, clinical investigators and contract laboratories, to conduct clinical trials of our product candidates. In particular, we will have limited control over the two custirsen phase 3 trials over which Teva will have primary oversight. Although we rely on third parties to conduct our clinical trials, we are responsible for ensuring that each of our clinical trials is conducted in accordance with our investigational plan and protocol. Moreover, the FDA and non-U.S. regulatory authorities require us to comply with regulations and standards, commonly referred to as Good Clinical Practices, or GCPs, for conducting, monitoring, recording and reporting the results of clinical trials to ensure that the data and results are scientifically credible and accurate and that the clinical trial subjects are adequately informed of the potential risks of participating in clinical trials. Our reliance on third parties does not relieve us of these responsibilities and requirements. If the third parties conducting our clinical trials do not perform their contractual duties or obligations, do not meet expected deadlines or need to be replaced, or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to GCPs or for any other reason, we may need to enter into new arrangements with alternative third parties and our clinical trials may be extended, delayed or terminated. In addition, a failure by such third parties to perform their obligations in compliance with GCPs may cause our clinical trials to fail to meet regulatory requirements, which may require us to repeat our clinical trials.

We rely on third parties to manufacture and supply our product candidates.

We do not own or operate manufacturing facilities, and we depend on third-party contract manufacturers for production of our product candidates. We lack the resources and the capability to manufacture any of our product candidates ourselves. To date, our product candidates have been manufactured in limited quantities for pre-clinical studies and clinical trials. All API for custirsen has been manufactured for us by Isis or Avecia, and all drug product has been manufactured for us by Formatech, Inc., Pyramid Laboratories, Inc. and Laureate Pharma, Inc., in each case pursuant to a purchase order or short-term contract that has been fulfilled. Avecia is our contract manufacturer for additional quantities of custirsen to complete our phase 3 clinical trials.

All API for OGX-427 for IND-enabling toxicology studies and initial clinical trials has been manufactured for us by Avecia and all drug product has been manufactured for us by Laureate Pharma, Inc., in each case pursuant to a purchase order or short-term contract which has been fulfilled.

If, in the future, one of our product candidates is approved for commercial sale, we, or a pharmaceutical partner that has licensed such product candidate, will need to manufacture that product candidate in commercial quantities. We cannot provide assurance that the third-party manufacturers with which we have contracted in the past will have sufficient capacity to satisfy our future manufacturing needs, that we will be able to negotiate additional purchases of API or drug product from these or alternative manufacturers on terms favorable to us, if at all, or that a pharmaceutical partner that has licensed such product candidate will have sufficient capacity or expertise to satisfy future needs.

Third-party manufacturers may fail to perform under their contractual obligations, or may fail to deliver the required commercial quantities of bulk API or finished drug product on a timely basis and at commercially reasonable prices. We have experienced manufacturing quality issues resulting in an unusable lot of product candidate. Any performance failure on the part of our contract manufacturers could delay clinical development or regulatory approval of our product candidates or commercialization of our future product candidates, depriving us of potential product revenue and resulting in additional losses. If we are required to identify and qualify an alternate manufacturer, we may be forced to delay or suspend our clinical trials, regulatory submissions, required approvals or commercialization of our product candidates, which may cause us to incur higher costs and could prevent us from commercializing our product candidates successfully. If we are unable to find one or more replacement manufacturers capable of production at a reasonably favorable cost, in adequate volumes, of adequate quality, and on a timely basis, we would likely be unable to meet demand for our product candidates and our clinical trials could be delayed or we could lose potential revenue. Our ability to replace an existing API manufacturer may be difficult

because the number of potential manufacturers is limited to approximately five manufacturers, and the FDA must inspect any replacement manufacturer and review information related to product produced at the manufacturer before they can begin manufacturing our product candidates. It may be difficult or impossible for us to identify and engage a replacement manufacturer on acceptable terms in a timely manner, if at all. We expect to continue to depend on third-party contract manufacturers for the foreseeable future.

Our product candidates require precise, high-quality manufacturing. Any of our contract manufacturers will be subject to ongoing periodic unannounced inspection by the FDA and non-U.S. regulatory authorities to ensure strict compliance with cGMP, and other applicable government regulations and corresponding standards. If our contract manufacturers fail to achieve and maintain high manufacturing standards in compliance with cGMP regulations, we may experience manufacturing errors resulting in patient injury or death, product recalls or withdrawals, delays or interruptions of production or failures in product testing or delivery, delay or prevention of filing or approval of marketing applications for our product candidates, cost overruns or other problems that could seriously affect our business.

Significant manufacturing scale-up may require additional validation studies, which the FDA must review and approve. Additionally, any third-party manufacturers we retain to manufacture our product candidates on a commercial scale must pass an FDA pre-approval inspection for conformance to cGMP regulations before we can obtain approval of our product candidates. If we are unable to successfully increase the manufacturing capacity for a product candidate in conformance with cGMP regulations, the regulatory approval or commercial launch of any related products may be delayed or there may be a shortage in supply.

If our competitors develop and market products that are more effective, safer or less expensive than our future product candidates, our clinical trials and commercial opportunities will be negatively affected.

The life sciences industry is highly competitive, and we face significant competition from many pharmaceutical, biopharmaceutical and biotechnology companies that are researching and marketing products designed to address cancer indications for which we are currently developing products or for which we may develop products in the future. We are aware of several other companies which are developing therapeutics that seek to promote tumor cell death by inhibiting proteins believed to promote cell survival. Any products we may develop in the future are also likely to face competition from other drugs and therapies. Many of our competitors have significantly greater financial, manufacturing, marketing and drug development resources than we do. Large pharmaceutical companies, in particular, have extensive experience in clinical testing and in obtaining regulatory approvals for drugs. These companies also have significantly greater research and marketing capabilities than we do. In addition, many universities and private and public research institutes are, or may become, active in cancer research, which products may directly compete with ours. If our competitors market products that are more effective, safer or less expensive than our future product candidates, if any, or that reach the market sooner than our future product candidates, if any, we may not achieve commercial success.

If new therapies become broadly used, we may need to conduct clinical trials of our product candidates in combination with these new therapies to demonstrate safety and efficacy of the combination. Additional trials will delay the development of our product candidates and increase our costs. The failure of certain of our product candidates to work in combination with these new therapies would have an adverse effect on our business.

Our intention is to combine certain of our product candidates with therapies that are broadly used by clinicians and considered highly effective. As new therapies are developed, we will need to assess these therapies to determine whether to conduct clinical trials of our product candidates in combination with them to demonstrate safety and efficacy of the combination. If we determine that it is appropriate to conduct additional clinical trials of our product candidates in combination with these new therapies, the development of our product candidates will be delayed and our costs will be increased. If these clinical trials generate safety concerns or lack of efficacy, our business would be adversely affected.

If our product candidates are approved in combination with a specific therapy that is broadly used and that therapy is displaced by another product, the market for our product candidate may decrease.

Our product candidates may cause undesirable and potentially serious side effects during clinical trials that could delay or prevent their regulatory approval or commercialization.

Custirsen was administered to 294 patients with various types of cancer in phase 1 and phase 2 clinical trials. Some patients experienced various adverse events, the majority of which are associated with other treatments in the protocol and the disease. The majority of adverse events were mild and the most common adverse events associated with custirsen consisted of flu-like symptoms. The most common serious adverse events associated with custirsen were neutropenia, vomiting, dehydration, pyrexia, pleural effusion and difficulty breathing (also known as "dyspnea"), which occurred in greater than 2% of patients. In addition, we are conducting a phase 1 DDI study, the results of which may affect the development of custirsen in NSCLC.

OGX-427 was administered to 59 patients with various types of cancer in a phase 1 clinical trial. Enrollment is complete in five cohorts with dose-escalation of OGX-427 as monotherapy and in two cohorts in which docetaxel was administered in combination with OGX-427. There was only one dose-limiting toxicity; thus, the maximum tolerated dose was not reached. Of the 46 patients presented at the ASCO 2010 annual meeting, the majority of the adverse events were infusion reactions, which were documented in 72% of patients and increased in incidence with increasing dose. The majority (93%) were grade 1 or 2. Grade 3/4 laboratory events, which occurred in decreasing frequency, were lymphopenia, prolonged PTT, neutropenia, hyponatremia, anemia, elevated creatinine and thrombocytopenia. During monotherapy and when OGX-427 was administered as combination therapy, there was evidence of decreases in tumor markers (CA-125 and PSA), decreases in Hsp27+ circulating tumor cells, and reduction of serum Hsp27 protein levels.

SN2310 was administered to 26 patients with various types of cancer in a phase 1 clinical trial. Data collection for this clinical trial has been completed. Some of the patients experienced adverse events, which were considered unrelated to the study drug and attributed to the underlying disease. Of the adverse events associated with SN2310, most were mild and the most common events were nausea, diarrhea, vomiting and fatigue. Mild to moderate reactions (back/chest pain, flushing) have been observed during infusions. Significant neutropenia has occurred in some patients and was the dose-limiting toxicity observed, sometimes associated with fever or septicemia.

Since patients in our clinical trials have advanced stages of cancer, we expect that additional adverse events, including serious adverse events, will occur.

Undesirable side effects caused by any of our product candidates could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in the denial of regulatory approval by the FDA or non-U.S. regulatory authorities for any or all targeted indications. This, in turn, could prevent us from commercializing our product candidates and generating revenue from their sale. In addition, if our product candidates receive marketing approval and we or others later identify undesirable side effects caused by the product:

- Teva may elect to terminate the ongoing clinical trials and cease development of custirsen;
- regulatory authorities may withdraw their approval of the product;
- we may be required to recall the product, change the way the product is administered, conduct additional clinical trials or change the labeling of the product;
- a product may become less competitive and product sales may decrease; and
- our reputation may suffer.

Any one or a combination of these events could prevent us from achieving or maintaining market acceptance of the affected product or could substantially increase the costs and expenses of commercializing the product, which in turn could delay or prevent us from generating significant revenue from the sale of the product. Recent events have raised questions about the safety of marketed drugs and may result in increased cautiousness by the FDA in reviewing new drugs based on safety, efficacy or other regulatory considerations and may result in significant delays in obtaining regulatory approvals, additional clinical trials being required, or more stringent product labeling requirements. Any delay in obtaining, or the inability to obtain, applicable regulatory approvals would prevent us from commercializing our product candidates.

Because we depend on financing from third parties for our operations, our business may fail if such financing becomes unavailable or is not available on commercially reasonable terms.

To date, we have financed our operations primarily through the sale of our equity securities and from the upfront payment we received pursuant to the Collaboration Agreement with Teva. We believe that our existing capital resources and interest on such resources, including the financing we completed in October 2010, will be sufficient to meet our current operating requirements into 2014. If, however, the Collaboration Agreement with Teva were to terminate or if Teva fails to fulfill its obligations under the Collaboration Agreement, or if the trials proceed slower than expected or are initiated later than expected, or if we change our development plans, acquire rights to new product candidates or cannot find third-party collaborators for our other product candidates, we may need additional capital sooner than we expect. Our future capital requirements will depend on many factors, including, without limitation:

- maintaining our partnership with Teva and Teva's ongoing commitment to develop custirsen in a timely manner;
- whether we experience delays in our pre-clinical and clinical development programs, or slower-than-anticipated product development;
- the scope and results of our pre-clinical studies and clinical trials;
- whether opportunities to acquire additional product candidates arise and the costs of acquiring and developing those product candidates;
- whether we are able to enter into additional third-party collaborative partnerships to develop and/or commercialize any of our other product candidates on terms that are acceptable to us;
- the timing and requirements of, and the costs involved in, conducting studies required to obtain regulatory approvals for our product candidates from the FDA and comparable foreign regulatory agencies;
- the availability of third parties to perform the key development tasks for our product candidates, including conducting pre-clinical studies and clinical trials and manufacturing our product candidates to be tested in those studies and trials and the associated costs of those services; and
- the costs involved in preparing, filing, prosecuting, maintaining, defending the validity of and enforcing patent claims and other costs related to patent rights and other intellectual property rights, including litigation costs and the results of such litigation.

If we are unable to raise funds on acceptable terms when it becomes necessary to do so, we may not be able to continue developing our product candidates, acquire or develop additional product candidates or respond to competitive pressures or unanticipated requirements. For these reasons, any inability to raise additional funds when we require it could have a material adverse effect on our business.

Even if we or Teva receive regulatory approval to market our product candidates, the market may not be receptive to our products.

Even if our product candidates obtain regulatory approval, they may not gain market acceptance among physicians, patients, healthcare payors and/or the medical community. We believe that the degree of market acceptance will depend on a number of factors, including:

- timing of market introduction of competitive products;
- safety and efficacy of our products;
- prevalence and severity of any side effects;
- potential advantages or disadvantages over alternative treatments;
- strength of marketing and distribution support;
- price of our products, both in absolute terms and relative to alternative treatments; and
- availability of coverage and reimbursement from government and other third-party payors.

If our future product candidates fail to achieve market acceptance, we may not be able to generate significant revenue or achieve or sustain profitability.

Although we have entered into a Collaboration Agreement with Teva for custirsen, we have not yet partnered with third-party collaborators with respect to any of our other product candidates, and we cannot control whether we will be able to do so on favorable terms, if at all.

Our business strategy relies in part on potentially partnering successful product candidates with larger companies to complement our internal development and commercialization efforts. While we have successfully entered into a Collaboration Agreement with Teva with respect to custirsen, it may be difficult for us to find third parties that are willing to enter into a collaboration on acceptable economic terms, if at all, with respect to our other product candidates. We also will be competing with many other companies as we seek partners for our other product candidates and may not be able to compete successfully against those companies. If we are not able to enter into collaboration arrangements for our other product candidates, we would be required to undertake and fund further development, clinical trials, manufacturing and commercialization activities solely at our own expense and risk. If we are unable to finance and/or successfully execute those expensive activities, our business could be materially and adversely affected, and we may be forced to discontinue clinical development of these product candidates.

If we were to be successfully sued related to our products or operations, we could face substantial liabilities that may exceed our resources.

We may be held liable if any of our products or operations cause injury or death or are found otherwise unsuitable during product testing, manufacturing, marketing or sale. These risks are inherent in the development of pharmaceutical products. We currently maintain Commercial General and Umbrella Liability policies with combined limits of \$10 million per occurrence and in the aggregate, in addition to a \$10 million per claim and annual aggregate product liability insurance policy related to our clinical trials consistent with industry standards. When necessary for our products, we intend to obtain additional product liability insurance. Insurance coverage may be prohibitively expensive, may not fully cover potential liabilities or may not be available in the future. Inability to obtain sufficient insurance coverage at an acceptable cost or otherwise to protect against potential product liability claims could prevent or inhibit the commercialization of our products. If we were to be sued for any injury caused by or associated with our products or operations, the litigation could consume substantial time and attention of our management, and the resulting liability could exceed our total assets.

If we fail to acquire and develop products or product candidates at all or on commercially reasonable terms, we may be unable to grow our business.

We currently do not have internal discovery capabilities and depend on pharmaceutical and biotechnology companies and other researchers to sell or license products or product candidates to us. To date, three of our product candidates have been derived from technologies discovered by the Vancouver Prostate Centre and licensed to us by UBC, and one candidate has been in-licensed from Bayer. We intend to continue to rely on the Vancouver Prostate Centre, UBC and other research institutions and other biotechnology or pharmaceutical companies as sources of product candidates. We cannot guarantee that the Vancouver Prostate Centre or UBC will continue to develop new product candidate opportunities, that we will continue to have access to such opportunities or that we will be able to purchase or license these product candidates on commercially reasonable terms, if at all. If we are unable to purchase or license new product candidates from the Vancouver Prostate Centre or UBC, we will be required to identify alternative sources of product candidates.

The success of our product pipeline strategy depends on our ability to identify, select and acquire pharmaceutical product candidates. Proposing, negotiating and implementing an economically viable product acquisition or license is a lengthy and complex process. We compete for partnering arrangements and license agreements with pharmaceutical and biotechnology companies and academic research institutions. Our competitors may have stronger relationships with third parties with whom we are interested in collaborating and/or may have more established histories of developing and commercializing products. As a result, our competitors may have a competitive advantage in entering into partnering arrangements with such third parties. In addition, even if we find promising product candidates, and generate interest in a partnering or strategic arrangement to acquire such product candidates, we may not be able to acquire rights to additional product candidates or approved products on terms that we find acceptable, if at all. If we fail to acquire and develop product candidates from others, we may be unable to grow our business.

We expect that any product candidate that we acquire rights to will require additional development efforts prior to commercial sale, including extensive clinical evaluation and approval by the FDA and non-U.S. regulatory authorities. All product candidates are subject to the risks of failure inherent in pharmaceutical product development, including the possibility that the product candidate will not be shown to be sufficiently safe and effective for approval by regulatory authorities. Even if the product candidates are approved, we can make no assurance that we would be capable of economically producing the product or that the product would be commercially successful.

We will need to retain additional personnel and expand our other resources in order to promote custirsen in the event we exercise our co-promotion option and develop our other product candidates. If we fail to effectively expand our operations, including attracting and retaining key management and scientific personnel, we may be unable to successfully develop or commercialize our product candidates and our business may be materially adversely affected.

We will need to expand and effectively manage our managerial, operational, financial, development and other resources in order to successfully pursue our research, development and commercialization efforts for our existing and future product candidates. Our success depends on our continued ability to attract, retain and motivate highly qualified personnel, such as management, pre-clinical and clinical personnel, including our executive officers Michelle Burris, Scott Cormack, and Cindy Jacobs. In addition, although we have entered into employment agreements with each of Ms. Burris, Mr. Cormack, and Dr. Jacobs, such agreements permit the executive to terminate his or her employment with us at any time, subject to providing us with advance written notice.

Should custirsen receive marketing approval in the United States and Canada, or should we exercise our co-promotion option, which is unlikely without sufficient funds, we would need to hire a substantial number of specialized personnel, including field-based medical affairs representatives. In turn, we would need to increase our administrative headcount to support such expanded development and commercialization operations with respect to our product candidates. Our ability to attract and retain qualified personnel in the future is subject to intense competition for qualified personnel among biotechnology, pharmaceutical and other businesses and our current financial position. The loss of the services of any of our senior management could delay or prevent the development and commercialization of our product candidates, or have other adverse effects on our business for an indefinite term. In particular, if we lose any members of our current senior management team, we may not be able to find suitable replacements in a timely fashion, if at all and our business may be harmed as a result. If any of such events were to occur, among other things, we may not be able to comply with our contractual obligations to Teva under our Collaboration Agreement or advance our product candidates, which could have a material adverse effect on our business.

We have scientific and clinical advisors who assist us in formulating our development and clinical strategies. These advisors are not our employees and may have commitments to, or consulting or advisory contracts with, other entities that may limit their availability to us. In addition, our advisors may have arrangements with other companies to assist those companies in developing products or technologies that may compete with ours.

We may encounter difficulties in managing our expected growth and in expanding our operations successfully.

As we advance our product candidates custirsen, OGX-427, OGX-225, and CSP-9222 through development and clinical trials, we will need to develop or expand our development, regulatory, manufacturing, marketing and sales capabilities or contract with third parties to provide these capabilities for us. Maintaining additional relationships and managing our future growth will impose significant added responsibilities on members of our management. We must be able to manage our development efforts effectively, manage our clinical trials effectively, hire, train and integrate additional management, development, administrative and sales and marketing personnel, improve our managerial, development, operational and finance systems, and expand our facilities, all of which may impose a strain on our administrative and operational infrastructure.

Under the Collaboration Agreement, Teva is responsible for the commercialization costs associated with custirsen; however, if we were to exercise our co-promotion option, which we do not anticipate having sufficient funds to do, we would need to expand our marketing and sales capabilities. In addition, as we have primary responsibility for the oversight of the second-line trial in CRPC, we must be able to manage our development responsibilities effectively, which may impose a strain on our administrative and operational infrastructure.

Furthermore, we may acquire additional businesses, products or product candidates that complement or augment our existing business. Integrating any newly acquired business, product or product candidate could be expensive and time-consuming. We may not be able to integrate any acquired business, product or product candidate successfully or operate any acquired business profitably. Our future financial performance will depend, in part, on our ability to manage any future growth effectively and our ability to integrate any acquired businesses. We may not be able to accomplish these tasks, which failure could prevent us from successfully growing our business.

We may be adversely affected if our controls over external financial reporting fail or are circumvented.

We regularly review and update our internal controls, disclosure controls and procedures, and corporate governance policies. In addition, we are required under the Sarbanes Oxley Act of 2002 to report annually on our internal control over financial reporting. If it were to be determined that our internal control over financial reporting is not effective, such shortcoming could have an adverse effect on our business and financial results and the price of our common stock could be negatively affected. This reporting requirement could also make it more difficult or more costly for us to obtain certain types of insurance, including director and officer liability insurance, and we may be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. Any system of internal controls, however well designed and operated, is based in part on certain assumptions and can provide only reasonable, not absolute, assurances that the objectives of the system are met. Any failure or circumvention of the controls and procedures or failure to comply with regulation concerning control and procedures could have a material effect on our business, results of operation and financial condition. Any of these events could result in an adverse reaction in the financial marketplace due to a loss of investor confidence in the reliability of our financial statements, which ultimately could negatively affect the market price of our shares, increase the volatility of our stock price and adversely affect our ability to raise additional funding. The effect of these events could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors and our board committees and as executive officers.

Risks Related to Our Intellectual Property

Our proprietary rights may not adequately protect our technologies and product candidates.

Our commercial success will depend on our ability to obtain patents and/or regulatory exclusivity and maintain adequate protection for our technologies and product candidates in the United States and other countries. We will be able to protect our proprietary rights from unauthorized use by third parties only to the extent that our proprietary technologies and future product candidates are covered by valid and enforceable patents or are effectively maintained as trade secrets.

We and our collaborators, including Teva, intend to apply for additional patents covering both our technologies and product candidates, as we deem appropriate. We or our collaborators may, however, fail to apply for patents on important technologies or product candidates in a timely fashion, if at all. Our existing patents and any future patents we or our collaborators obtain may not be sufficiently broad to prevent others from practicing our technologies or from developing competing products and technologies. In addition, we do not always control the patent prosecution of subject matter that we license from others. Accordingly, we are sometimes unable to exercise a significant degree of control over such intellectual property as we would over our own. Moreover, the patent positions of biopharmaceutical companies are highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. As a result, the validity and enforceability of our patents cannot be predicted with certainty. In addition, we cannot guarantee that:

- we or our licensors were the first to make the inventions covered by each of our issued patents and pending patent applications;
- we or our licensors were the first to file patent applications for these inventions;
- others will not independently develop similar or alternative technologies or duplicate any of our technologies;
- any of our or our licensors' pending patent applications will result in issued patents;
- any of our or our licensors' patents will be valid or enforceable;

- any patents issued to us or our licensors and collaboration partners will provide us with any competitive advantages, or will not be challenged by third parties; and
- we will develop additional proprietary technologies that are patentable, or the patents of others will not have an adverse effect on our business.

The actual protection afforded by a patent varies on a product-by-product basis, from country to country and depends on many factors, including the type of patent, the scope of its coverage, the availability of regulatory related extensions, the availability of legal remedies in a particular country and the validity and enforceability of the patents. Our ability or the ability of our collaborators to maintain and solidify our proprietary position for our product candidates will depend on our success in obtaining effective claims and enforcing those claims once granted. Our issued patents and those that may issue in the future, or those licensed to us or our collaborators, may be challenged, invalidated, unenforceable or circumvented, and the rights granted under any issued patents may not provide us with proprietary protection or competitive advantages against competitors with similar products. Due to the extensive amount of time required for the development, testing and regulatory review of a potential product, it is possible that, before any of our product candidates can be commercialized, any related patent may expire or remain in force for only a short period following commercialization, thereby reducing any advantage of the patent.

We and our collaborators, including Teva, also rely on trade secrets to protect some of our technology, especially where it is believed that patent protection is appropriate or obtainable. However, trade secrets are difficult to maintain. While we use reasonable efforts to protect our trade secrets, our or our collaboration partners' employees, consultants, contractors or scientific and other advisors may unintentionally or willfully disclose our proprietary information to competitors. Enforcement of claims that a third party has illegally obtained and is using trade secrets is expensive, time consuming and uncertain. In addition, non-U.S. courts are sometimes less willing than U.S. courts to protect trade secrets. If our competitors independently develop equivalent knowledge, methods and know-how, we would not be able to assert our trade secrets against them and our business could be harmed.

We and our collaborators, including Teva, may not be able to protect our intellectual property rights throughout the world.

Filing, prosecuting and defending patents on all of our product candidates and products, when and if we have any, in every jurisdiction would be prohibitively expensive. Competitors may use our technologies in jurisdictions where we or our licensors have not obtained patent protection to develop their own products. These products may compete with our products, when and if we have any, and may not be covered by any of our or our licensors' patent claims or other intellectual property rights.

The laws of some non-U.S. countries do not protect intellectual property rights to the same extent as the laws of the United States, and many companies have encountered significant problems in protecting and defending such rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biotechnology and/or pharmaceuticals, which could make it difficult for us to stop the infringement of our patents. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial cost and divert our efforts and attention from other aspects of our business.

The intellectual property protection for our product candidates depends on third parties.

With respect to custirsen, OGX-427 and OGX-225, we have exclusively licensed from UBC certain issued patents and pending patent applications covering the respective antisense sequences underlying these product candidates and their commercialization and use and we have licensed from Isis certain issued patents and pending patent applications directed to product compositions and chemical modifications used in product candidates for commercialization, use and the manufacturing thereof, as well as some alternative antisense sequences. We have also received a sublicense from Isis under certain third-party patent portfolios directed to such modifications. We have entered into an exclusive in-licensing agreement with Bayer for development of caspase activators that are presently being evaluated in pre-clinical studies.

The patents and pending patent applications underlying our licenses do not cover all potential product candidates, modifications and uses. In the case of patents and patent applications licensed from Isis, we do not have and have not had any control over the filing, prosecution or enforcement of these patents or patent applications. In the case of patents and patent applications licensed from Bayer, we did not have any control over the filing of the patents and patent applications before the effective date of the Bayer license, and have had control over the filing and prosecution of these patents and patent applications after the effective date of the Bayer license. Under certain circumstances, we also have the right to enforce patents and patent applications licensed from Bayer. We cannot be certain that such prosecution efforts have been or will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents. We also cannot be assured that our licensors or their respective licensing partners will agree to enforce any such patent rights at our request or devote sufficient efforts to attain a desirable result. Any failure by our licensors or any of their respective licensing partners to properly protect the intellectual property rights relating to our product candidates could have a material adverse effect on our financial condition and results of operation.

We may become involved in disputes with Teva or potential future collaborators over intellectual property ownership, and publications by our research collaborators and scientific advisors could impair our ability to obtain patent protection or protect our proprietary information, which, in either case, could have a significant effect on our business.

Inventions discovered under research, material transfer or other such collaborative agreements, including our Collaboration Agreement with Teva, may become jointly owned by us and the other party to such agreements in some cases and the exclusive property of either party in other cases. Under some circumstances, it may be difficult to determine who owns a particular invention, or whether it is jointly owned, and disputes could arise regarding ownership of those inventions. These disputes could be costly and time consuming and an unfavorable outcome could have a significant adverse effect on our business if we were not able to protect or license rights to these inventions. In addition, our research collaborators and scientific advisors generally have contractual rights to publish our data and other proprietary information, subject to our prior review. Publications by our research collaborators and scientific advisors containing such information, either with our permission or in contravention of the terms of their agreements with us, may impair our ability to obtain patent protection or protect our proprietary information, which could significantly harm our business.

The patent protection for our product candidates or products may expire before we are able to maximize their commercial value, which may subject us to increased competition and reduce or eliminate our opportunity to generate product revenue.

The patents for our product candidates have varying expiration dates and, when these patents expire, we may be subject to increased competition and we may not be able to recover our development costs. For example, certain of the U.S. patents directed to custirsen and its use that have been licensed from UBC are scheduled to expire in 2020 and 2021. In some of the larger economic territories, such as the United States and Europe, patent term extension/restoration may be available to compensate for time taken during aspects of the product candidate's regulatory review. We cannot, however, be certain that an extension will be granted or, if granted, what the applicable time period or the scope of patent protection afforded during any extended period will be. In addition, even though some regulatory agencies may provide some other exclusivity for a product candidate under its own laws and regulations, we may not be able to qualify the product candidate or obtain the exclusive time period.

If we are unable to obtain patent term extension/restoration or some other exclusivity, we could be subject to increased competition and our opportunity to establish or maintain product revenue could be substantially reduced or eliminated. Furthermore, we may not have sufficient time to recover our development costs prior to the expiration of our U.S. and non-U.S. patents.

We may incur substantial costs as a result of litigation or other proceedings relating to patent and other intellectual property rights and we may be unable to protect our rights to, or use of, our technology.

If we choose to go to court to stop someone else from using the inventions claimed in our patents or our licensed patents, that individual or company has the right to ask the court to rule that these patents are invalid and/or should not be enforced against that third party. These lawsuits are expensive and would consume time and other resources

even if we were successful in stopping the infringement of these patents. In addition, there is a risk that the court will decide that these patents are invalid or unenforceable and that we do not have the right to stop the other party from using the inventions. There is also the risk that, even if the validity or unenforceability of these patents is upheld, the court will refuse to stop the other party on the grounds that such other party's activities do not infringe our rights.

If we wish to use the technology or compound claimed in issued and unexpired patents owned by others, we will need to obtain a license from the owner, enter into litigation to challenge the validity or enforceability of the patents or incur the risk of litigation in the event that the owner asserts that we infringed its patents. The failure to obtain a license to technology or the failure to challenge an issued patent that we may require to discover, develop or commercialize our product candidates may have a material adverse effect on us.

If a third party asserts that we infringed its patents or other proprietary rights, we could face a number of risks that could seriously harm our results of operations, financial condition and competitive position, including:

- patent infringement and other intellectual property claims, which would be costly and time consuming to defend, whether or not the claims have merit, and which could delay the regulatory approval process and divert management's attention from our business;
- substantial damages for past infringement, which we may have to pay if a court determines that our product candidates or technologies infringe a competitor's patent or other proprietary rights;
- a court prohibiting us from selling or licensing our technologies or future drugs unless the third party licenses its patents or other proprietary rights to us on commercially reasonable terms, which it is not required to do; and
- if a license is available from a third party, we may have to pay substantial royalties or lump-sum payments or grant cross licenses to our patents or other proprietary rights to obtain that license.

The biotechnology industry has produced a proliferation of patents, and it is not always clear to industry participants, including us, which patents cover various types of products or methods of use. The coverage of patents is subject to interpretation by the courts, and the interpretation is not always uniform. If we are sued for patent infringement, we would need to demonstrate that our product candidates or methods of use either do not infringe the patent claims of the relevant patent, and/or that the patent claims are invalid, and/or that the patent is unenforceable and we may not be able to do this. Proving invalidity, in particular, is difficult since it requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents.

U.S. patent laws as well as the laws of some foreign jurisdictions provide for provisional rights in published patent applications beginning on the date of publication, including the right to obtain reasonable royalties, if a patent subsequently issues and certain other conditions are met.

Because some patent applications in the United States may be maintained in secrecy until the patents are issued, because patent applications in the United States and many foreign jurisdictions are typically not published until 18 months after filing, and because publications in the scientific literature often lag behind actual discoveries, we cannot be certain that others have not filed patent applications for technology covered by our licensors' issued patents or our pending applications or our licensors' pending applications, or that we or our licensors were the first to invent the technology.

Patent applications filed by third parties that cover technology similar to ours may have priority over our or our licensors' patent applications and could further require us to obtain rights to issued patents covering such technologies. If another party files a U.S. patent application on an invention similar to ours, we may elect to participate in or be drawn into an interference proceeding declared by the U.S. Patent and Trademark Office to determine priority of invention in the United States. The costs of these proceedings could be substantial, and it is possible that such efforts would be unsuccessful, resulting in a loss of our U.S. patent position with respect to such inventions. Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. In addition, any uncertainties resulting from the initiation and continuation of any litigation could have a material adverse effect on our ability to raise the funds necessary to continue our operations. We cannot predict whether third parties will assert these claims against us or

against the licensors of technology licensed to us, or whether those claims will harm our business. If we are forced to defend against these claims, whether they are with or without any merit and whether they are resolved in favor of or against us or our licensors, we may face costly litigation and diversion of management's attention and resources. As a result of these disputes, we may have to develop costly non-infringing technology, or enter into licensing agreements. These agreements, if necessary, may be unavailable on terms acceptable to us, if at all, which could seriously harm our business or financial condition.

If we breach any of the agreements under which we license rights to our product candidates or technology from third parties, we could lose license rights that are important to our business. Certain of our license agreements may not provide an adequate remedy for a breach by the licensor.

We license the development and commercialization rights for most of our product candidates, including custirsen, OGX-427, OGX-225 and CSP-9222, and we expect to enter into similar licenses in the future. Under such licenses, we are subject to various obligations such as sublicensing, royalty and milestone payments, annual maintenance fees, limits on sublicensing, insurance obligations and the obligation to use commercially reasonable best efforts to develop and exploit the licensed technology. If we fail to comply with any of these obligations or otherwise breach these agreements, our licensors may have the right to terminate the license in whole or in part or to terminate the exclusive nature of the license. Loss of any of these licenses or the exclusivity rights provided by the licenses could harm our financial condition and results of operations. In addition, certain of our license agreements with UBC eliminate our ability to obtain money damages in respect of certain claims against UBC.

Under the terms of our Collaboration Agreement with Teva, we are required to use commercially reasonable efforts to maintain and not to breach in any material manner certain of our third-party license agreements relating to custirsen. If we breach any of these agreements in a material manner, we would be in breach of the Collaboration Agreement, which would allow Teva to terminate the Collaboration Agreement.

We may be subject to damages resulting from claims that we, or our employees or consultants, have wrongfully used or disclosed alleged trade secrets of third parties.

Many of our employees were previously employed, and certain of our consultants are currently employed, at universities or biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although we have not received any claim to date, we may be subject to claims that these employees or consultants or we have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of these current or former employers. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. We may be subject to claims that employees of our partners or licensors of technology licensed by us have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers. We may become involved in litigation to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel.

Risks Related to our Common Stock and Other Securities

If we raise additional financing, the terms of such transactions may cause dilution to existing stockholders or contain terms that are not favorable to us.

To date, our sources of cash have been limited primarily to proceeds from the private or public placement of our securities and proceeds from the Collaboration Agreement with Teva. In the future, we may seek to raise additional financing through private placements or public offerings of our equity or debt securities. We cannot be certain that additional funding will be available on acceptable terms, if at all. To the extent that we raise additional financing by issuing equity securities, our stockholders may experience significant dilution. Any debt financing, if available, may involve restrictive covenants, such as limitations on our ability to incur additional indebtedness, limitations on our ability to acquire or license intellectual property rights and other operating restrictions that could adversely affect our ability to conduct our business.

The price for our common stock is volatile.

The market prices for our common stock and that of emerging growth companies generally have historically been highly volatile. Future announcements concerning us or our competitors may have a significant effect on the market price of our common stock. The stock markets also experience significant price and volume fluctuation unrelated to the operating performance of particular companies. These market fluctuations may also adversely affect the market price of our common stock.

An increase in the market price of our common stock, which is uncertain and unpredictable, may be the sole source of gain from an investment in our common stock. An investment in our common stock may not be appropriate for investors who require dividend income. We have never declared or paid cash dividends on our capital stock and do not anticipate paying any cash dividends on our capital stock in the foreseeable future. We currently intend to retain all available funds and any future earnings to fund the development and growth of our business. As a result, capital appreciation, if any, of our common stock will be the sole source of gain for stockholders for the foreseeable future. Accordingly, an investment in our common stock may not be appropriate for investors who require dividend income.

We are at risk of securities class action litigation.

In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because our stock price and those of other biotechnology and biopharmaceutical companies have experienced significant stock price volatility in recent years. If we face such litigation, it could result in substantial costs and a diversion of management's attention and resources, which could harm our business.

Anti-takeover provisions in our stockholder rights plan, our charter documents and under Delaware law could make a third-party acquisition of us difficult.

We have a stockholder rights plan that may have the effect of discouraging unsolicited takeover proposals. Specifically, the rights issued under the stockholder rights plan could cause significant dilution to a person or group that attempts to acquire us on terms not approved in advance by our board of directors. In addition, our certificate of incorporation and bylaws contain provisions that may discourage unsolicited takeover proposals that stockholders may consider to be in their best interests. These provisions include the ability of our board of directors to designate the terms of and issue new series of preferred stock and the ability of our board of directors to amend our bylaws without stockholder approval. In addition, as a Delaware corporation, we are subject to Section 203 of the Delaware General Corporation Law, which generally prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that the stockholder became an interested stockholder, unless certain specific requirements are met as set forth in Section 203. Collectively, these provisions could make a third-party acquisition of us difficult or could discourage transactions that otherwise could involve payment of a premium over prevailing market prices for our common stock.

Risks Related to Our Industry

The regulatory approval process is expensive, time consuming and uncertain and may prevent us from obtaining approvals for the commercialization of some or all of our product candidates.

The research, testing, manufacturing, labeling, approval, selling, marketing and distribution of drug products are subject to extensive regulation by the FDA and non-U.S. regulatory authorities, which regulations differ from country to country. We are not permitted to market our product candidates in the United States until we receive approval of a NDA from the FDA. We have not submitted an application for or received marketing approval for any of our product candidates. Obtaining approval of an NDA can be a lengthy, expensive and uncertain process. In addition, failure to comply with FDA, non-U.S. regulatory authorities' or other applicable United States and non-U.S. regulatory requirements may, either before or after product approval, if any, subject us to administrative or judicially imposed sanctions, including:

- restrictions on the products, manufacturers or manufacturing process;
- warning letters;
- civil and criminal penalties;
- injunctions;
- suspension or withdrawal of regulatory approvals;
- product seizures, detentions or import bans;
- voluntary or mandatory product recalls and publicity requirements;
- total or partial suspension of production;
- imposition of restrictions on operations, including costly new manufacturing requirements; and
- refusal to approve pending NDAs or supplements to approved NDAs.

Regulatory approval of an NDA or NDA supplement is not guaranteed, and the approval process is expensive and may take several years. The FDA also has substantial discretion in the drug approval process. Despite the time and expense exerted, failure can occur at any stage, and we could encounter problems that could cause us to abandon clinical trials or to repeat or perform additional pre-clinical studies and clinical trials. The number of pre-clinical studies and clinical trials that will be required for FDA approval varies depending on the drug candidate, the disease or condition that the drug candidate is designed to address, and the regulations applicable to any particular drug candidate. The FDA can delay, limit or deny approval of a drug candidate for many reasons, including:

- a drug candidate may not be deemed safe or effective;
- the FDA may not find the data from pre-clinical studies and clinical trials sufficient;
- the FDA might not approve our third-party manufacturer's processes or facilities;
- the FDA may change its approval policies or adopt new regulations; and
- third-party products may enter the market and change approval requirements.

Even if we obtain regulatory approvals for our product candidates, the terms of approvals and ongoing regulation of our product candidates may limit how we manufacture and market our product candidates, which could materially affect our ability to generate revenue.

If any of our product candidates are approved, the approved product and its manufacturer will be subject to continual review. Any regulatory approval that we receive for a product candidate is likely to be subject to limitations on the indicated uses for which the end product may be marketed, or include requirements for potentially costly post-approval follow-up clinical trials. In addition, if the FDA and/or non-U.S. regulatory authorities approve any of our product candidates, the labeling, packaging, adverse event reporting, storage, advertising and promotion for the end product will be subject to extensive regulatory requirements. We and the manufacturers of our products, when and if we have any, will also be required to comply with cGMP regulations, which include requirements relating to quality control and quality assurance, as well as the corresponding maintenance of records and documentation. Further, regulatory agencies must approve these manufacturing facilities before they can be used to manufacture our products, when and if we have any, and these facilities are subject to ongoing regulatory inspection. If we fail to comply with the regulatory requirements of the FDA and other non-U.S. regulatory authorities, or if previously unknown problems with our products, when and if we have any, manufacturers or manufacturing processes are discovered, we could be subject to administrative or judicially imposed sanctions, including:

- restrictions on the products, manufacturers or manufacturing process;
- warning letters;
- civil or criminal penalties or fines;
- injunctions;
- product seizures, detentions or import bans;
- voluntary or mandatory product recalls and publicity requirements;
- suspension or withdrawal of regulatory approvals;
- total or partial suspension of production;
- imposition of restrictions on operations, including costly new manufacturing requirements; and
- refusal to approve pending NDAs or supplements to approved NDAs.

In addition, the FDA and non-U.S. regulatory authorities may change their policies and additional regulations may be enacted that could prevent or delay regulatory approval of our product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States, Canada or abroad. If we are not able to maintain regulatory compliance, we would likely not be permitted to market our future product candidates and we may not achieve or sustain profitability.

There is a high risk that our drug development activities will not result in commercial products.

Our product candidates are in various stages of development and are prone to the risks of failure inherent in drug development. We will need to complete significant additional clinical trials before we can demonstrate that our product candidates are safe and effective to the satisfaction of the FDA and non-U.S. regulatory authorities. Clinical trials are expensive and uncertain processes that take years to complete. Failure can occur at any stage of the process, and successful early clinical trials do not ensure that later clinical trials will be successful. Product candidates in later-stage clinical trials may fail to show desired efficacy and safety traits despite having progressed through initial clinical trials. A number of companies in the pharmaceutical industry have suffered significant setbacks in advanced clinical trials, even after obtaining promising results in earlier clinical trials. In addition, a clinical trial may prove successful with respect to a secondary objective, but fail to demonstrate clinically significant benefits with respect to a primary objective. Failure to satisfy a primary objective in a phase 3 clinical trial (registration trial) would generally mean that a product candidate would not receive regulatory approval.

If government and third-party payors fail to provide coverage and adequate reimbursement rates for our product candidates, our revenue and potential for profitability will be reduced.

In the United States and elsewhere, our product revenue will depend principally on the reimbursement rates established by third-party payors, including government health administration authorities, managed-care providers, public health insurers, private health insurers and other organizations. These third-party payors are increasingly challenging the price, and examining the cost-effectiveness, of medical products and services. In addition, significant uncertainty exists as to the reimbursement status, if any, of newly approved drugs, pharmaceutical products or product indications. We may need to conduct post-marketing clinical trials in order to demonstrate the cost-effectiveness of our products, if any. Such clinical trials may require us to commit a significant amount of management time and financial and other resources. If reimbursement of such product is unavailable or limited in scope or amount or if pricing is set at unsatisfactory levels, our revenue could be reduced.

In some countries other than the United States, particularly the countries of the European Union and Canada, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, obtaining pricing approval from governmental authorities can take six to 12 months or longer after the receipt of regulatory marketing approval of a product for an indication. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost-effectiveness of one of our product candidates to other available therapies. If reimbursement of such product candidate is unavailable or limited in scope or amount or if pricing is set at unsatisfactory levels, our revenue could be reduced.

Domestic and foreign governments continue to propose and pass legislation designed to reduce the cost of healthcare, including drugs. In the United States, there have been, and we expect that there will continue to be, federal and state proposals to implement similar governmental control. In addition, increasing emphasis on managed care in the United States will continue to put pressure on the pricing of pharmaceutical products. For example, the Medicare Prescription Drug Improvement and Modernization Act of 2003 reforms the way Medicare will cover and reimburse pharmaceutical products. The legislation expands Medicare coverage for drug purchases by the elderly and eventually will introduce a new reimbursement methodology based on average sales prices for certain drugs. In addition, the new legislation provides authority for limiting the number of outpatient drugs that will be covered in any therapeutic class. As a result of the new legislation and the expansion of federal coverage of drug products, we expect that there will be additional pressure to contain and reduce costs. The Medicaid program and state healthcare laws and regulations may also be modified to change the scope of covered products and/or reimbursement methodology. Cost control initiatives could decrease the established reimbursement rates that we receive for any products in the future, which would limit our revenue and profitability. Legislation and regulations affecting the pricing of pharmaceutical products, including custirsen, may change at any time, which could further limit or eliminate reimbursement rates for custirsen or other product candidates.

Failure to obtain regulatory approval outside the United States would prevent us or Teva from marketing our product candidates abroad.

We intend to market certain of our existing and future product candidates in non-North American markets. In order to market our existing and future product candidates in the European Union and many other non-North American markets, we must obtain separate regulatory approvals. We have had limited interactions with non-North American regulatory authorities. Approval procedures vary among countries and can involve additional testing, and the time required to obtain approval may differ from that required to obtain FDA approval. Approval by the FDA or other regulatory authorities does not ensure approval by regulatory authorities in other countries, and approval by one or more non-North American regulatory authorities does not ensure approval by regulatory authorities in other countries or by the FDA. The non-North American regulatory approval process may include all of the risks associated with obtaining FDA approval. We may not obtain non-North American regulatory approvals on a timely basis, if at all. We may not be able to file for non-North American regulatory approvals and may not receive necessary approvals to commercialize our existing and future product candidates in any market.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We have business offices located in Bothell, Washington and Vancouver, British Columbia. Prior to the Arrangement, Sonus entered into a non-cancellable lease agreement for laboratory and office space in Bothell, Washington, and moved into this facility on December 14, 2007. The lease covers approximately 42,600 square feet of laboratory and office space in a single facility, is currently at an annual rent of approximately \$2.1 million, and has a 10-year term with two five-year renewal options.

We lease approximately 4,857 square feet in Vancouver, British Columbia, currently at an annual rent of approximately CND \$128,000, which lease expires in September 2014 and includes a five-year renewal option.

We believe that the facilities we currently lease are sufficient for our anticipated near-term needs.

ITEM 3. LEGAL PROCEEDINGS

From time to time, we may be involved in litigation relating to claims arising out of our operations in the normal course of business. We are not currently a party to any legal proceedings, the adverse outcome of which, in management's opinion, individually or in the aggregate, would have a material adverse effect on our results of operations or financial position. There are no material proceedings to which any director, officer or any of our affiliates, any owner of record or beneficially of more than five percent of any class of our voting securities, or any associate of any such director, officer, our affiliates, or security holder, is a party adverse to us or our consolidated subsidiary or has a material interest adverse thereto.

ITEM 4. REMOVED AND RESERVED

PART II

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

Our common stock first began trading on the Nasdaq National Market under the symbol "SNUS" on October 12, 1995. Following the completion of the Arrangement discussed elsewhere in this Annual Report on Form 10-K, our common stock commenced trading on the Nasdaq Capital Market under the stock symbol "OGXI", effective August 21, 2008.

No cash dividends have been paid on our common stock, and we do not anticipate paying any cash dividends in the foreseeable future. As of January 17, 2011, there were approximately 148 stockholders of record and approximately 7,640 beneficial stockholders of our common stock. The high and low sales prices of our common stock as reported by Nasdaq for the periods indicated are as follows:

| <u>OncoGenex Pharmaceuticals, Inc.</u> | <u>HIGH</u> | <u>LOW</u> |
|--|-------------|------------|
| YEAR ENDED DECEMBER 31, 2009: | | |
| First quarter | \$ 5.94 | \$ 2.90 |
| Second quarter | 27.05 | 3.90 |
| Third quarter | 42.99 | 19.30 |
| Fourth quarter | 37.88 | 20.10 |
| YEAR ENDED DECEMBER 31, 2010: | | |
| First quarter | \$22.71 | \$13.90 |
| Second quarter | 22.65 | 13.39 |
| Third quarter | 15.60 | 11.83 |
| Fourth quarter | 20.00 | 13.59 |

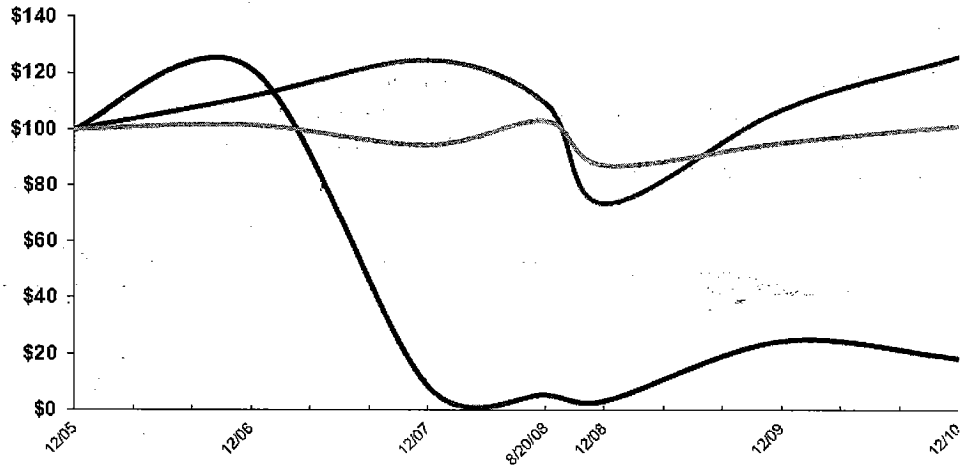
The information required by this item regarding equity compensation plan information is set forth in Part III, Item 12 of this Annual Report on Form 10-K. No purchases of equity securities during the year ended December 31, 2010 were made by us or on our behalf.

Stock Performance Graph

The following performance graph shall not be deemed "filed" for purposes of Section 18 of the Exchange Act, or incorporated by reference into any of our filings under the Securities Act or the Exchange Act, except as expressly set forth by specific reference in such filings. The graph compares the cumulative five-year total return provided to stockholders on our common stock relative to the cumulative total returns of the NASDAQ Composite Index and the NASDAQ Pharmaceutical Index. An investment of \$100 (with reinvestment of all dividends into additional shares of the same class of equity securities at the frequency with which dividends are paid on such securities during the applicable year) is assumed to have been made in our common stock and in each of the indexes on December 31, 2005 and its relative performance is tracked through December 31, 2010. All amounts reflected in the graph are presented after having given effect to the one-for-eighteen reverse stock split effected in connection with the Arrangement.

The stock price performance included in this graph is not necessarily indicative of future stock price performance.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*
 Among OncoGenex Pharmaceuticals, Inc., the NASDAQ Composite Index
 and the NASDAQ Pharmaceutical Index



— OncoGenex Pharmaceuticals, Inc. — NASDAQ Composite — NASDAQ Pharmaceutical

*\$100 invested on 12/31/05 in stock or index, including reinvestment of dividends.

(1) Fiscal year ending December 31. August 20, 2008 represents the day before the date of the completion of the Arrangement.

| | 12/31/05 | 12/31/06 | 12/31/07 | 8/20/08 (1) | 12/31/08 | 12/31/09 | 12/31/10 |
|--|----------|----------|----------|----------------|----------|----------|----------|
| OncoGenex Pharmaceuticals, Inc. | \$100 | \$121.47 | \$8.65 | \$5.56 | \$3.31 | \$24.61 | \$18.54 |
| NASDAQ Composite | 100 | 111.74 | 124.67 | 109.43 | 73.77 | 107.12 | 125.93 |
| NASDAQ Pharmaceutical | 100 | 101.61 | 94.58 | 103.13 | 87.4 | 95.29 | 101.44 |

(1) August 20, 2008 represents the day before the date of the completion of the Arrangement.

ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA

The data set forth below should be read in conjunction with Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the Consolidated Financial Statements and Notes thereto appearing at Item 8 of this Annual Report on Form 10-K. The selected consolidated statements of loss data for the years ended December 31, 2010, 2009, and 2008 and consolidated balance sheet data as of December 31, 2010 and 2009 set forth below have been derived from our audited consolidated financial statements included elsewhere in this Annual Report on Form 10-K. The selected statements of loss data for the years ended December 31, 2007 and December 31, 2006 and the balance sheet data as of December 31, 2008, 2007 and 2006 set forth below have been derived from the audited consolidated financial statements for such years not included in this Annual Report on Form 10-K.

In connection with the Arrangement, OncoGenex Technologies was considered to be the acquiring company for accounting purposes. Accordingly, the assets and liabilities of Sonus were recorded, as of the effective time of the Arrangement, at their respective fair values and added to those of OncoGenex Technologies. The results of the operations and balance sheet data for the year ended December 31, 2008 reflect the results of only OncoGenex Technologies for the time period of January 1, 2008 through August 20, 2008 and the results of the combined company from August 21, 2008 through December 31, 2008. The historical results of operations and balance sheet data shown for years ended December 31, 2007 and 2006 reflect only those of OncoGenex Technologies prior to the Arrangement, and do not reflect the results of Sonus. The historical results presented are not necessarily indicative of future results.

| | December 31, | | | | |
|--|---|-----------|-----------|------------|-------------|
| | 2010 | 2009 | 2008 | 2007 | 2006 |
| | (in thousands except share and per share amounts) | | | | |
| Statements of Loss Data: | | | | | |
| Collaboration revenue | \$ 13,616 | 25,539 | — | — | — |
| Total expenses | \$ 28,361 | \$ 28,121 | \$ 11,112 | \$ 7,675 | \$ 11,302 |
| Net loss | \$ 12,584 | \$ 5,476 | \$ 4,204 | \$ 8,536 | \$ 11,594 |
| Redeemable convertible preferred share accretion | \$ — | \$ — | \$ 1,973 | \$ 2,944 | \$ 2,604 |
| Loss attributable to common stockholders | \$ 12,584 | \$ 5,476 | \$ 6,177 | \$ 11,480 | \$ 14,198 |
| Basic and diluted loss per common share | \$ (1.79) | \$ (0.95) | \$ (3.38) | \$ (96.63) | \$ (119.51) |
| Shares used in calculation of net loss per share | | | | | |
| Basic | 7,030,903 | 5,766,850 | 1,829,276 | 118,801 | 118,801 |
| Diluted | 7,030,903 | 5,766,850 | 1,829,276 | 118,801 | 118,801 |

| | December 31, | | | | |
|---|----------------|-------------|-------------|-------------|-------------|
| | 2010 | 2009 | 2008 | 2007 | 2006 |
| | (in thousands) | | | | |
| Balance Sheet Data: | | | | | |
| Cash, cash equivalents and short-term investments | \$ 85,107 | \$ 64,568 | \$ 12,419 | \$ 5,131 | \$ 8,012 |
| Total assets | \$ 89,918 | \$ 68,980 | \$ 14,790 | \$ 7,350 | \$ 9,395 |
| Current liabilities | \$ 27,476 | \$ 25,781 | \$ 2,884 | \$ 5,713 | \$ 2,532 |
| Series preferred shares | \$ — | \$ — | \$ — | \$ 37,373 | \$ 34,429 |
| Additional paid-in capital and common shares | \$ 107,589 | \$ 73,804 | \$ 56,076 | \$ 399 | \$ 399 |
| Accumulated deficit | \$ (66,069) | \$ (53,485) | \$ (48,009) | \$ (41,832) | \$ (30,352) |
| Stockholders equity | \$ 44,125 | \$ 22,959 | \$ 10,707 | \$ (38,223) | \$ (27,566) |

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

Forward-Looking Statements

This Annual Report on Form 10-K contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements involve a number of risks and uncertainties. We caution readers that any forward-looking statement is not a guarantee of future performance and that actual results could differ materially from those contained in the forward-looking statement. These statements are based on current expectations of future events. Such statements include, but are not limited to, statements about future financial and operating results, plans, objectives, expectations and intentions, costs and expenses, interest rates, outcome of contingencies, financial condition, results of operations, liquidity, business strategies, cost savings, objectives of management and other statements that are not historical facts. You can find many of these statements by looking for words like "believes," "expects," "anticipates," "estimates," "may," "should," "will," "could," "plan," "intend," or similar expressions in this Annual Report on Form 10-K or in documents incorporated by reference into this Annual Report on Form 10-K. We intend that such forward-looking statements be subject to the safe harbors created thereby. Examples of these forward-looking statements include, but are not limited to:

- progress and preliminary and future results of clinical trial conducted by us or our collaborators;
- anticipated regulatory filings, requirements and future clinical trials conducted by us or our collaborators;
- our anticipated future capital requirements and the terms of any capital financing agreements;
- timing and amount of future contractual payments, product revenue and operating expenses;
- market acceptance of our products and the estimated potential size of these markets; and
- our anticipated future capital requirements and the terms of any capital financing agreements.

These forward-looking statements are based on the current beliefs and expectations of our management and are subject to significant risks and uncertainties. If underlying assumptions prove inaccurate or unknown risks or uncertainties materialize, actual results may differ materially from current expectations and projections. The following factors, among others, could cause actual results to differ from those set forth in the forward-looking statements:

- uncertainty relating to the timing, feasibility and results of clinical trials;
- dependence on Teva's ongoing commitment and ability to develop and commercialize custirsen;
- dependence on the development and commercialization of our product candidates, particularly on custirsen;
- the risk that research or previous clinical trial results may not be indicative of results in humans or in future studies;
- uncertainties regarding the safety and effectiveness of our products and technologies;
- the timing, expense and uncertainty associated with the development and regulatory approval process for products;
- uncertainties regarding our future operating results, and the risk that our product candidates will not obtain the requisite regulatory approvals to commercialize or that the future sales of our product candidates may be less than expected or nil;
- future capital requirements and uncertainty of obtaining additional funding through debt or equity financings on terms acceptable to us;
- acceptance of our products by the medical community;
- the uncertainty associated with exiting or subleasing our excess office and laboratory space;
- our ability to build out our product candidate pipeline through product in-licensing, acquisition activities, or otherwise;
- changes in the treatment landscape, general competitive conditions within the drug development and pharmaceutical industry and new developments or therapies that may not work in combination with our product candidates;
- the potential for product liability issues and related litigation;
- our dependence on key employees;
- proper management of our operations;

- the potential inability to successfully protect and enforce our intellectual property rights;
- the reliance on third parties who license intellectual property rights to us to comply with the terms of such agreements and to enforce, prosecute and defend such intellectual property rights;
- the reliance on third parties to manufacture and supply our product candidates;
- the effect of current, pending or future legislation, regulations and legal actions in the United States, Canada and elsewhere affecting the pharmaceutical and healthcare industries;
- volatility in the value of our common stock; and
- general economic conditions.

You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this Annual Report on Form 10-K or, in the case of documents referred to or incorporated by reference, the date of those documents.

All subsequent written or oral forward-looking statements attributable to us or any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. We do not undertake any obligation to release publicly any revisions to these forward-looking statements to reflect events or circumstances after the date of this Annual Report on Form 10-K or to reflect the occurrence of unanticipated events, except as may be required under applicable U.S. securities law. If we do update one or more forward-looking statements, no inference should be drawn that we will make additional updates with respect to those or other forward-looking statements.

Overview

In this section we explain our general financial condition and the results of operations, including:

- an overview of our business;
- results of operations and why those results are different from the prior year; and
- capital resources we currently have and possible sources of additional funding for future capital requirements.

Arrangement Agreement

As discussed in the Notes to Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K, during 2008, we completed the Arrangement with OncoGenex Technologies and, in connection with the Arrangement, effected a one-for-eighteen reverse stock split. All information in this Annual Report on Form 10-K relating to number of shares, price per share, and per share amounts of common stock are presented on a post-reverse stock split basis. For more information concerning the Arrangement, see Note 5 of Notes to Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K.

Overview of the Company and 2010 Developments

OncoGenex is a biopharmaceutical company committed to the development and commercialization of new cancer therapies that address treatment resistance in cancer patients. We have five product candidates in our pipeline, custirsen, OGX-427, OGX-225, SN2310 and CSP-9222, each of which has a distinct mechanism of action and represents a unique opportunity for cancer drug development. Of the product candidates in our pipeline, custirsen, OGX-427 and SN2310 are clinical-stage assets.

Our product candidates custirsen, OGX-427 and OGX-225 focus on mechanisms for treating resistance in cancer patients and are designed to address treatment resistance by blocking the production of specific proteins that we believe promote survival of tumor cells and are over-produced in response to a variety of cancer treatments. Our aim in targeting these particular proteins is to disable the tumor cell's adaptive defenses, thereby rendering the tumor cells more susceptible to attack with a variety of cancer therapies, including chemotherapy. We believe this approach will increase survival time and improve the quality of life for cancer patients. Product candidate SN2310 is a novel camptothecin for treating cancer. Camptothecins are potent anticancer agents that belong to the family of drugs called topoisomerase I inhibitors that bind reversibly to the TOPO-I-DNA complex, thereby causing breaks in

the DNA strands during replication that result in cell death. Product candidate CSP-9222 is the lead compound from a family of caspase activators that have been in-licensed from Bayer and demonstrate activation of programmed cell death in pre-clinical models.

Product Candidate Custirsén

As discussed above, in December 2009, we announced our entry into the Collaboration Agreement with Teva for the development and global commercialization of custirsén (and related compounds targeting clusterin, excluding OGX-427 and OGX-225).

We and Teva have developed a Clinical Development Plan under which two phase 3 clinical trials have been initiated and one additional phase 3 clinical trial will be initiated. We have designed two of the phase 3 clinical trials to evaluate the clinical benefit of custirsén in patients with CRPC and, together with Teva, we are in the process of designing a third phase 3 clinical trial to evaluate the clinical benefit of custirsén in NSCLC, as follows:

- The phase 3 SATURN trial to evaluate a durable pain palliation benefit for custirsén in combination with docetaxel retreatment as second-line chemotherapy in approximately 300 patients with CRPC, which was initiated in the second quarter of 2010.
- The phase 3 SYNERGY trial to be conducted in approximately 125 cancer centers to evaluate a survival benefit for custirsén in combination with first-line docetaxel treatment in approximately 800 patients with CRPC, which was initiated in the third quarter of 2010.
- A phase 3 clinical trial to evaluate a survival benefit for custirsén in combination with first-line chemotherapy in patients with NSCLC, which is expected to be initiated in 2011 following successful manufacturing of additional custirsén drug product and completion of DDI studies. The trial is expected to enroll approximately 950 patients. The study protocol will include two futility assessments and one interim analysis for efficacy. The first-line chemotherapy regimen has been selected as carboplatin and paclitaxel.

For detailed information regarding our relationship with Teva and the Collaboration Agreement, refer to the discussion under the heading “Business--License and Collaboration Agreements--Teva Pharmaceutical Industries Ltd.”

Custirsén received Fast Track designations from the FDA for the treatment of progressive metastatic prostate cancer in combination with docetaxel for both first- and second-line docetaxel treatment. The FDA has agreed on the design of two phase 3 registration trials, each in CRPC, via the SPA process. The SYNERGY trial design investigates overall survival as the primary endpoint for custirsén in combination with first-line chemotherapy, whereas the other trial design, the SATURN trial, investigates pain palliation as the primary endpoint for custirsén in combination with second-line chemotherapy.

In February 2010, custirsén received written, scientific advice from the EMA on our development plan for custirsén for treating patients with CRPC, which advice corresponded with our development plan regarding the proposed pre-clinical studies and both the study designs and analyses for the phase 3 trials. The CHMP also agreed that the intended safety database would enable a sufficient qualified risk-benefit assessment for market approval.

Our phase 3 registration trials are designed to build on our phase 2 clinical trials, including:

A randomized phase 2 trial evaluating the benefit of combining custirsén with first-line docetaxel, the final results of which were published in the September 20, 2010 issue of the *Journal of Clinical Oncology*. Analyses indicating a survival benefit in patients treated with custirsén in combination with first-line docetaxel compared to docetaxel alone, the latter being the current standard of care for patients with advanced, progressive metastatic prostate cancer requiring initial chemotherapy, are described in our 2009 Annual Report on Form 10-K filed on March 8, 2010 under the heading “Business—Our Product Candidates—Custirsén—Summary of Final Results of Custirsén Phase 2 Clinical Trial in Patients With CRPC Receiving Custirsén and Docetaxel as First-Line Chemotherapy.” Due to the results of the phase 2

trial, the SYNERGY trial, which was initiated in third quarter of 2010, will evaluate the survival benefit of custirsen in patients treated with first-line chemotherapy.

- Durable pain palliation, defined as pain palliation of 12 weeks or greater, which has been observed in another phase 2 trial evaluating patients with metastatic CRPC who progressed while receiving, or within six months of completing, first-line docetaxel treatment. Of the patients on this trial who had pain or were on opioids for pain control and were retreated with docetaxel as second-line treatment in combination with custirsen, approximately 50% had durable pain palliation. This is favorable even when compared to the 35% pain responses of three weeks or greater observed in the phase 3 trial, which supported the registration of docetaxel as first-line chemotherapy in patients with CRPC, and when compared to the pain responses for cabazitaxel of 9.2% and for mitoxantrone of 7.7% observed in the Phase 3 TROPIC trial. Due to the results of our phase 2 trial, the SATURN trial, which was initiated in the second quarter of 2010, is evaluating the durable pain palliation benefit of custirsen in patients treated with second-line docetaxel. The SATURN trial will enroll patients in approximately 50 cancer centers who have previously responded to first-line docetaxel therapy, but who subsequently experienced disease progression involving prostate cancer-related pain despite opioid usage.
- A phase 2 trial evaluating 81 patients with advanced NSCLC who received custirsen in combination with gemcitabine and a platinum chemotherapy (cisplatin or carboplatin) as first-line chemotherapy. The median overall survival was 14.1 months and 54% of patients survived at least one year. Thirty percent of patients who received custirsen with first-line chemotherapy survived at least two years. For comparison, published studies using a platinum-based regimen plus gemcitabine as first-line chemotherapy for advanced NSCLC reported median survivals of 8 to 11 months and one-year survival rates of 33% to 43%. Market approval for Avastin plus paclitaxel and carboplatin chemotherapy for NSCLC was based on results showing a median survival of 12.3 months compared to 10.3 months for patients treated with chemotherapy alone. Survival rates for Avastin plus chemotherapy versus chemotherapy alone were reported as 51% versus 44% at one year and 23% versus 15% at two years, respectively. The protocol for the custirsen phase 3 registration trial in advanced, unresectable NSCLC has yet to be finalized. Teva is expected to initiate this trial in 2011, which will assess overall survival as the primary endpoint.

Product Candidate OGX-427

OGX-427 is a product candidate that, in pre-clinical experiments, inhibits production of Hsp27, a cell survival protein found at elevated levels in many human cancers, including prostate, lung, breast, ovarian, bladder, renal, pancreatic, multiple myeloma and liver cancer. Many anti-cancer therapies are known to further elevate Hsp27 levels. For example, Hsp27 levels increased four-fold in prostate cancer patients after treatment with chemotherapy or hormone therapy. Increased levels of Hsp27 in some human cancers are associated with metastases, poor prognosis and resistance to radiation or chemotherapy.

OGX-427 has been evaluated in a phase 1 trial in patients with breast, prostate, ovarian, or non-small cell lung cancer who have failed potentially curative treatments or for which a curative treatment does not exist. Final results of this phase 1 trial were presented during an oral presentation at the ASCO 2010 annual meeting. The phase 1 trial evaluated 36 patients treated with OGX-427 as a single agent and 12 patients with OGX-427 in combination with docetaxel who had failed up to six prior chemotherapy treatments. OGX-427 as a single agent administered weekly was evaluated at doses from 200 mg up to 1000 mg in five cohorts of approximately six patients in each cohort. Two further cohorts tested OGX-427 at the 800 and 1000 mg doses combined with docetaxel. Patients could receive up to 10 21-day cycles.

OGX-427 was well tolerated both as a monotherapy and in combination with docetaxel. Most adverse events were mild (grade 1 or 2) and mainly occurred during the three "loading doses" given over nine days prior to weekly dosing. The majority of adverse events potentially related to OGX-427 consisted of grade 1 or 2 fever, chills, itching, or flushing (associated with the infusion of OGX-427) and fatigue. Despite evaluating OGX-427 at very high doses, a maximum tolerated dose for OGX-427 was not reached in this trial.

Of particular interest was the decrease at all doses and in all diseases evaluated in the trial for both total CTCs, and CTCs which were positive for Hsp27, Hsp27(+) CTCs. Recent studies have shown that the presence of CTCs in peripheral blood may be of prognostic significance for patients with solid tumors, and patients with values of five tumor cells or less are generally considered to have a more favorable prognosis.

When OGX-427 was used as monotherapy, 3 of 17 evaluable patients had a decrease in measurable disease of 20% or greater. In this heavily pretreated patient population, two of four patients with ovarian cancer had a decrease of 25% or greater in CA-125 (an ovarian tumor marker) and 3 of 15 patients with prostate cancer had a decrease of 30% or greater in PSA (a prostate tumor marker). Hsp27+CTCs decreases were noted in 89% of evaluable patients and were observed at all dose levels and all diseases evaluated. In 9 of 26 (31%) patients with ≥ 5 Hsp27+CTCs at baseline, Hsp27 + CTCs had decreased to five tumor cells or less. In addition, serum Hsp27 protein levels were decreased by 30% or greater over a period of at least six weeks in approximately 25% of patients at the 800 and 1000 mg doses.

When OGX-427 was combined with docetaxel, 5 of 10 patients had a decrease in measurable disease of 20% or greater. Five of nine patients with prostate cancer had a decrease of 30% or greater in PSA. Again, decreases in both total CTCs and Hsp27(+) CTCs were observed. Hsp27+CTCs were decreased in 71% of evaluable patients. In four of seven patients with ≥ 5 Hsp+CTCs at baseline, Hsp+ CTCs had decreased to five cells or less. Serum Hsp27 protein levels were decreased by 30% or greater over a time period of at least six weeks in approximately 35% of patients.

An investigator-sponsored phase 1 clinical trial evaluating OGX-427 when administered directly into the bladder in patients with bladder cancer was initiated in August 2009. We are in the process of accruing patients for this trial, in which we will enroll up to 36 patients. The trial is designed to determine the safety and potential benefit of OGX-427 administered directly into the bladder using a catheter, which is known as intravesical instillation. In addition, the trial will measure the direct effect of OGX-427 on expression of Hsp27 in bladder tumor cells, as well as determine the pharmacokinetics and pharmacodynamics of OGX-427 when delivered by intravesical instillation. This investigator-sponsored trial is funded by the National Cancer Institute of Canada.

In September 2010, we announced the initiation of a separate investigator-sponsored, randomized phase 2 clinical trial evaluating OGX-427 when administered as a monotherapy to patients with CRPC. The randomized, controlled phase 2 trial will enroll up to 72 patients who have minimally symptomatic or asymptomatic advanced prostate cancer and who have not yet received chemotherapy, and is designed to determine the potential benefit of OGX-427 by evaluating the number of patients who are without disease progression at 12 weeks post-trial treatment with or without OGX-427. This phase 2 trial will also measure the direct effect of OGX-427 on PSA levels, time to progression by PSA or measurable disease, numbers of CTCs and other relevant secondary endpoints.

As discussed under "Liquidity and Capital Resources" below, in October 2010, we received \$46.7 million in net proceeds from a public offering. We expect to use a portion of the net proceeds from that offering to fund a phase 2 clinical trial of OGX-427 in patients with metastatic bladder cancer. The proposed trial design is a three-arm, randomized phase 2 in combination with standard chemotherapy in the first-line metastatic setting. Each arm would enroll approximately 60 patients and the trial would be initiated in sites throughout the United States, Canada and Europe. We are consulting with external bladder cancer experts and anticipate the final protocol to be completed in early 2011. This trial, which is expected to begin in the second half of 2011, will complement the phase 2 clinical trial in prostate cancer, and phase 1 clinical trial in superficial bladder cancer.

We are currently evaluating various alternatives, including partnering, which would allow us to expand the OGX-427 development plan beyond the ongoing bladder cancer and CRPC trials and the planned randomized phase 2 bladder cancer trial.

Product Candidates OGX-225, SN2310 and CSP-9222

SN2310 was evaluated in a phase 1 clinical trial to evaluate safety in patients with advanced cancer who have received on average three to five prior chemotherapy treatments. SN2310 was administered to 26 patients with various types of cancer in this phase 1 clinical trial. The phase 1 clinical trial was completed and the dose-limiting toxicity that defined a maximum tolerated dose in this heavily pretreated patient population was determined. We do

not intend to initiate additional trials for SN2310 but will seek to out-license or sell this product candidate to a third party. OGX-225, an inhibitor of insulin growth factor binding proteins 2 and 5, and CSP-9222 are in pre-clinical development.

Collaboration Revenue

We recorded \$13.6 million of collaboration revenue in connection with our Collaboration Agreement with Teva in the year ended December 31, 2010, as compared to \$25.5 million in the year ended December 31, 2009. At December 31, 2010, an aggregate of \$21.6 million of the upfront payment was included in the balance sheet line items Current and Long-term Deferred Collaboration Revenue, which we are amortizing over the expected performance period of our deliverables under the Collaboration Agreement. Management currently expects this performance period to end in the fourth quarter of 2012. Further, we are eligible to receive payments of up to \$370 million upon the achievement of developmental and commercial milestones. At present, we are unable to predict the timing or likelihood of such milestone payments, although we do not expect to receive any milestone payments from Teva in the year ending December 31, 2011. Moreover, Isis has disclosed in its Securities and Exchange Commission, or SEC, filings that it is entitled to receive 30% of the up to \$370 million in milestone payments we may receive from Teva as part of the Collaboration Agreement. We disagree with their assessment but believe there may be some lesser payment obligation. There was no revenue in 2008. See Note 4 of Notes to Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K for further details on our collaboration with Teva.

Research and Development Expenses

Research and development, or R&D, expenses consist primarily of costs for milestone payments to third parties, clinical trials, materials and supplies, facilities, personnel, including salaries and benefits, regulatory activities, pre-clinical studies, and allocations of other R&D-related costs. External R&D expenses include fees paid to universities, hospitals and other entities that conduct certain R&D activities and that manufacture our product candidates for use in our clinical trials. Currently, we manage our clinical trials through independent medical investigators at their sites and at hospitals and expect this practice to continue.

Under the Collaboration Agreement with Teva, we are required to spend \$30 million towards development of custirsen, which will include our personnel costs for certain development activities. Teva will fund all other expenses incurred pursuant to the Clinical Development Plan. Costs that we incurred totaling \$3.5 million in 2009 and \$4.9 million in 2010 have been applied against our \$30 million funding commitment, resulting in a remaining funding commitment of \$21.6 million at December 31, 2010. We expect aggregate full-time equivalent reimbursement of between \$1.5 and \$2.5 million annually from 2011 to 2012, which will be applied against our funding commitment, or reimbursed to us from Teva on a cash basis. We currently expect that we will incur all remaining costs associated with the Clinical Development Plan by the fourth quarter of 2012.

A majority of our expenditures to date have been related to the development of custirsen. Until July 2, 2008, custirsen was being co-developed with Isis and R&D expenses for custirsen were shared 65% by us and 35% by Isis. On July 2, 2008, we and Isis amended the agreement to provide for unilateral development of custirsen by us. In connection with the Collaboration Agreement and pursuant to the terms of agreements between us and Isis relating to custirsen, we paid \$10 million to Isis in the first quarter of 2010, which was included in R&D expenses in 2009. We also paid \$333,333 to UBC in the first quarter of 2010 pursuant to the terms of the license agreement relating to custirsen, which was also included in R&D expenses in 2009.

Several of our clinical trials have been supported by grant funding that was received directly by the hospitals and/or clinical investigators conducting the clinical trials, thereby allowing us to complete these clinical trials at a lower cost to us.

Since our drug candidates are in the early stages of development, we cannot estimate completion dates for development activities or when we might receive material net cash inflows from our R&D projects, if ever.

Our projects or intended R&D activities may be subject to change from time to time as we evaluate our R&D priorities and available resources.

We expect our R&D expenses to increase in 2011 and into the future, likely significantly, as we further expand development of custirsen, OGX-427 and our other programs. Our programs or anticipated programs may be subject to change from time to time as we evaluate our R&D priorities and available resources.

General and Administrative Expenses

General and administrative, or G&A, expenses consist primarily of salaries and related costs for our personnel in executive, business development, human resources, external communications, finance and other administrative functions, as well as consulting costs, including market research and business consulting, and intellectual property. Other costs include professional fees for legal and auditing services, insurance and facility costs. We believe that G&A resources are sufficient to carry on existing development activities. We anticipate that G&A expenses will increase in the future as we continue to expand our operating activities.

Restructuring Activities

On August 21, 2008, immediately following the completion of the Arrangement, we reduced our workforce by approximately 49%. Severance payable at the date of the Arrangement in connection with former Sonus employees of \$1.3 million, and has been accounted for in accordance with EITF No. 95-3, "Recognition of Liabilities in Connection with a Purchase Business Combination," as part of the purchase price allocation. During 2008, we made payments totaling \$1.2 million and the amount owing at December 31, 2008 was \$137,000. All remaining severance liabilities relating to Arrangement-related workforce reductions were paid during 2009.

Prior to the Arrangement, Sonus entered into a non-cancellable lease arrangement for office space located in Bothell, Washington, which is in excess of our current requirements. We are currently in the process of evaluating opportunities to exit or sublet portions of the leased space and recorded an initial restructuring charge of \$2.1 million in August 2008 as part of the purchase price allocation. The liability is computed as the present value of the difference between the remaining lease payments due less the estimate of net sublease income and expenses, and has been accounted for in accordance with EITF No. 95-3 and represents our best estimate of the liability. Subsequent changes in the liability due to accretion, or changes in estimates of sublease assumptions, will be recognized as adjustments to restructuring charges in future periods.

In June 2009, we revised our sublease income assumptions used to estimate the excess lease facility liability. These assumptions were subsequently further revised in December 2009 and September 2010. These changes in estimate resulted in increases in the value of the excess lease liability of \$0.5 million, \$3.5 million, and \$4.0 million in expense recorded in June 2009, December 2009, and September 2010, respectively. In the year ended December 31, 2010, \$1.2 million was amortized into income through R&D expense, resulting in a remaining liability with respect to excess facilities of \$7.5 million at December 31, 2010.

Results of Operations

Our consolidated financial statements reflect the Arrangement between Sonus and OncoGenex Technologies as a reverse acquisition and OncoGenex Technologies was deemed to be the acquiring entity from an accounting perspective. Accordingly, for the year ended December 31, 2008, the consolidated results of operations include only the results of operations of OncoGenex Technologies for the time period of January 1, 2008 through August 21, 2008 and the results of the combined company following the completion of the Arrangement on August 21, 2008. This treatment and presentation is in accordance with SFAS 141, "Business Combinations." Pro forma results are included in Note 5 of Notes to Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K.

Years Ended December 31, 2010 and December 31, 2009

Revenue for the year ended December 31, 2010 decreased to \$13.6 million, from \$25.5 million for the year ended December 31, 2009. The decrease in 2010 as compared to 2009 was due to lower revenue earned through our strategic collaboration with Teva for the development of custirsen, which we entered into in December 2009. Revenue for 2010 includes recognition of \$4.9 million from the \$30.0 million upfront payment, as well as \$8.7 million earned through collaborative research, which has been reimbursed to us on a cash basis. At December 31, 2010, \$21.6 million of the upfront payment received from Teva in December 2009 was included on our consolidated balance sheet as Deferred Collaboration Revenue, which we are amortizing over the expected performance period of our deliverables under the Collaboration Agreement. Management currently expects this performance period to end in the fourth quarter of 2012. See Note 4 of Notes to Consolidated Financial Statements included elsewhere in the Annual Report on Form 10-K for further details on our collaboration with Teva.

R&D expenses for the year ended December 31, 2010 decreased to \$18.5 million from \$20.2 million in the year ended December 31, 2009. The decrease in 2010 as compared to 2009 was due primarily to 2009 milestones owed to Isis and UBC resulting from the Collaboration Agreement with Teva. This decrease in milestone expense was offset by higher manufacturing costs, employee costs and clinical trial costs associated with the custirsen phase 3 clinical trials. Costs for the custirsen phase 3 clinical trials are applied against the non-refundable upfront payments received from Teva in December 2009, while manufacturing costs are reimbursable from Teva on a cash basis. We expect R&D expenses to increase as we further develop our proprietary product candidates.

G&A expenses for the year ended December 31, 2010 increased to \$5.8 million from \$4.0 million for the year ended December 31, 2009. The increase in 2010 was due primarily to higher employee expenses, including severance charges, professional fees for legal and auditing services, employee recruitment costs and stock-based compensation expense.

Restructuring expense for the year ended December 31, 2010 was \$4.0 million. In September 2010, we revised our sublease income assumptions used to estimate the value of the excess lease facility liability. This change in estimate resulted in an increase in the value of our excess lease liability and a \$4.0 million restructuring expense recorded in September 2010 to reflect this change in estimate. Similar changes in our sublease income assumptions resulted in \$4.0 million in expense recorded in 2009.

We recorded \$1.0 million warrant issuance cost expense for the year ended December 31, 2010, relating to the issuance costs allocated to warrants as part of the October 2010 financing. This expense was offset by a \$0.1 million gain on revaluation of the warrants at December 31, 2010 which is included on our consolidated statement of loss as gain (loss) on warrants. We revalue the warrants at each balance sheet date to fair value. If unexercised, the warrants will expire in October 2015. There was no comparable charge in 2009.

Interest income for the year ended December 31, 2010 increased to \$86,000 from \$47,000 for the year ended December 31, 2009 due to higher balances of interest-bearing securities in 2010 as compared to 2009.

Other income for the year ended December 31, 2010 decreased to \$6,000 from \$70,000 for the year ended December 31, 2009. The income earned in 2010 relates to gains on the sales of equipment offset by foreign exchange losses, while income earned in 2009 relates to gains on sales of equipment and foreign exchange gains.

An income tax recovery of \$3.0 million was recorded in the second quarter of 2010, as we received approval from the Israeli Tax Authority, or ITA, for its request for a withholdings tax exemption on amounts received from Teva in relation to the collaboration. Under the Collaboration Agreement, Teva paid us \$50 million in upfront payments, of which \$20 million was for an upfront milestone payment and subject to possible withholding taxes by the ITA. Prior to the receipt of the approval, Teva was granted a temporary exemption for a transfer of \$17 million of the \$20 million upfront milestone payment. This temporary exemption was conditioned upon Teva's depositing \$3 million, which represented 15% of the upfront milestone payment paid according to the Collaboration Agreement, in a trust account in favor of the ITA until a final decision would be made by the ITA regarding the request. Accordingly, prior to the receipt of the approval, we had recorded a \$3 million liability recognizing this amount as an uncertain tax position. Following this approval from the ITA, this liability was released, and we recorded a \$3 million income

tax recovery. See Note 4 of Notes to Consolidated Financial Statements for further details on our collaboration with Teva.

Years Ended December 31, 2009 and December 31, 2008

We recorded \$25.5 million of collaboration revenue in connection with our Collaboration Agreement with Teva in the year ended December 31, 2009. At December 31, 2009, \$26.5 million of the upfront payment was included on our consolidated balance sheet as Deferred Collaboration Revenue and Deferred Collaboration Revenue, net of current, which we are amortizing over the expected performance period of our deliverables under the Collaboration Agreement. We currently expect this performance period to end in the fourth quarter of 2012. There was no revenue in 2008. See Note 4 of Notes to Consolidated Financial Statements for further details on our collaboration with Teva.

R&D expenses for the year ended December 31, 2009 increased to \$20.2 million from \$7.8 million for the year ended December 31, 2008, due primarily to higher costs for Isis and OGX-427 development costs, milestone payments owed to Isis and UBC resulting from the Collaboration Agreement with Teva, an increase in employee expenses and higher facility costs resulting from the Arrangement. The 2008 expense included a Scientific Research and Experimental Development, or SRED, claim of \$0.6 million, which offset R&D expenses in the period. Since OncoGenex Technologies ceased to be a Canadian Controlled Private Company under Canadian tax laws as a result of the Arrangement, SRED claims can now only be applied against taxes payable to Canada. The SRED program is a Canadian federal tax incentive program that encourages Canadian businesses to conduct R&D in Canada.

G&A expenses for the year ended December 31, 2009 increased to \$4.0 million from \$3.3 million for the year ended December 31, 2008, due primarily to higher employee expenses and increased costs associated with operating as a public company.

Restructuring expense for the year ended December 31, 2009 was \$4.0 million, reflecting changes in the liability estimate relating to our Bothell office space, which resulted in an increase in the value of our excess lease liability. There was no comparable charge recorded in the year ended December 31, 2008.

Interest income for the year ended December 31, 2009 decreased to \$47,000 from \$210,000 for the year ended December 31, 2008. Of the 2008 interest amount, \$60,000 related to interest received from the Canada Revenue Agency in relation to our 2006 SRED claim, while the 2009 amount includes only interest earned on cash and cash equivalents and marketable securities. There was no interest payable on SRED claims in the 2009 period.

Other income for the year ended December 31, 2009 decreased to \$70,000 from \$211,000 for the year ended December 31, 2008, due to lower gains on sales of equipment.

Liquidity and Capital Resources

We have incurred an accumulated deficit of \$66.1 million through December 31, 2010, and we expect to incur substantial and increasing additional losses in the future as we expand our R&D activities and other operations, as more fully described below. We have not generated any revenue from product sales to date, and we do not expect to generate product sales revenue for several years, if ever. In the year ended December 31, 2010, we generated \$13.6 million in collaboration revenue from the Collaboration Agreement with Teva.

All of our operations to date have been funded through the sale of our equity securities, and upfront payments received from Teva. As of December 31, 2010, our cash, cash equivalents, and short-term investments increased to \$85.1 million in the aggregate from \$64.6 million as of December 31, 2009.

As of December 31, 2010, we do not have any borrowing or credit facilities. Based on our current expectations, we believe our capital resources at December 31, 2010 will be sufficient to fund our currently planned operations into 2014. Our currently planned operations are set forth below under the heading "Operating Capital and Capital Expenditure Requirements."

Cash Flows

Cash Used in Operations

For the year ended December 31, 2010, net cash used in operating activities increased to \$26.8 million, from \$34.9 million in cash provided by operations in 2009. This increase in cash used in operations is primarily attributable to increased R&D expenses associated with manufacturing custirsen, payments associated with custirsen clinical trial activities, and payments made to Isis and UBC in the first quarter of 2010 resulting from the Collaboration Agreement with Teva. Cash provided by operations in 2009 was predominantly due to the upfront cash payment from Teva, offset by operating expenses.

For the year ended December 31, 2008, cash used in operations of \$12.3 million was attributable primarily to our losses from operating activities and cash used to reduce liabilities assumed in the Arrangement.

Cash Provided by Financing Activities

For the year ended December 31, 2010, net cash provided by financing activities increased to \$47.5 million from \$17.3 million. Net cash provided by financing activities in the year ended December 31, 2010 was primarily attributable to the net proceeds we received from the public offering that closed in October 2010. Net cash provided by financing activities in the year ended December 31, 2009 was primarily attributable to the net proceeds we received from the issuance of common stock through a registered direct offering and net proceeds we received from the issuance of common stock to Teva as part of the Share Purchase Agreement.

Net cash provided by financing activities in the year ended December 31, 2008 was \$121,000, resulting from the proceeds of the issuance of common stock on stock option exercises, offset by cash paid on the elimination of fractional shares following the one-for-eighteen reverse stock split.

Cash Used/Provided by Investing Activities

Net cash used in investing activities for the year ended December 31, 2010 increased to \$59.1 million from \$2.2 million in cash provided by investing activities in the year ended December 31, 2009. Net cash used in or provided by investing activities in the years ended December 31, 2010 and December 31, 2009 were due to transactions involving marketable securities in the normal course of business.

Net cash provided by investing activities in the year ended December 31, 2008 was \$15 million, resulting from the Arrangement and transactions involving marketable securities in the normal course of business.

Operating Capital and Capital Expenditure Requirements

We believe that our cash, cash equivalents and short-term investments will be sufficient to fund our currently planned operations into 2014, including:

- completing the SATURN trial, a phase 3 clinical trial that is evaluating a durable pain palliation benefit for custirsen in combination with docetaxel as second-line chemotherapy in approximately 300 patients with CRPC, which was initiated in the second quarter of 2010;
- completing the SYNERGY trial, a phase 3 clinical trial that is evaluating a survival benefit for custirsen in combination with docetaxel as first-line chemotherapy in approximately 800 patients with CRPC, which was initiated in the third quarter of 2010;
- completing patient accrual in a phase 3 clinical trial that is evaluating a survival benefit for custirsen in patients with advanced, unresectable NSCLC, which is expected to be initiated in 2011;
- completing an investigator-sponsored phase 2 clinical trial evaluating OGX-427 treatment in patients with prostate cancer; and

- completing a phase 2 clinical trial evaluating OGX-427 in combination with standard first-line chemotherapy in approximately 180 patients with metastatic bladder cancer.

As of December 31, 2010, we have a remaining commitment to fund \$21.6 million towards the three phase 3 trials of custirsen, while Teva is required to fund all additional expenses under the clinical development plan. The final results from the phase 3 trials may be released at a date that is beyond the period for which we currently project we have available cash resources. In addition, if we desire to conduct development activities with respect to our other product candidates beyond those development activities mentioned in the list above, we will require additional funding to support such operations. If we need to extend our cash availability, or to conduct any such currently unplanned development activities, we would seek such necessary funding through the licensing or sale of certain of our product candidates, by executing a partnership or collaboration agreement, or through private or public offerings of our equity or debt.

Our future capital requirements will depend on many factors, including:

- timing, costs and results of clinical trials, preclinical development and regulatory approvals;
- success of custirsen and achieving milestones and royalties;
- maintaining our relationship with Teva and Teva's ongoing level of focus and efforts to develop custirsen;
- timing, costs and results of drug discovery and R&D;
- entering into new collaborative or product license agreements for products in our pipeline;
- our ability to obtain additional funding through a partnership or collaboration agreement with a third party or licenses of certain of our product candidates, or through private or public offerings of our equity or debt; and
- costs related to obtaining, defending and enforcing patents.

Contractual Obligations

The following table summarizes our contractual obligations as of December 31, 2010:

| Contractual Obligations | Total | Less than 1 year | 1-3 years | 3-5 years | More than 5 years |
|--------------------------------------|--------------|------------------|-------------|-------------|-------------------|
| Bothell office operating lease (1) | \$15,747,000 | \$2,055,000 | \$4,297,000 | \$4,559,000 | \$4,836,000 |
| Vancouver office operating lease (2) | 424,000 | 128,000 | 215,000 | 81,000 | -- |
| Bayer license maintenance fees (3) | 1,125,000 | 175,000 | 425,000 | 525,000 | -- |
| UBC license maintenance fees (4) | 40,000 | 8,000 | 16,000 | 16,000 | -- |
| Leased equipment | 26,000 | 16,000 | 10,000 | -- | -- |
| Total | \$17,362,000 | \$2,382,000 | \$4,963,000 | \$5,181,000 | \$4,836,000 |

(1) This operating lease, which commenced in 2007, is for a 10-year term and includes two five-year option renewals.

(2) This operating lease expires in 2014.

(3) Under the terms of our agreement with Bayer, we make annual payments to Bayer on June 27 of each year, with an initial payment of \$100,000 in 2008. The payments will increase annually by \$25,000 until the initiation of the first phase 3 clinical trial relating to CSP-9222, at which point the payments reset to \$100,000 and increase by \$25,000, until such time as we achieve either the first NDA filing in the United States or the European Union related to CSP-9222. For the purposes of this table, we assume no reset in pricing resulting from initiation of phase 3 trials. We have the option to terminate this agreement upon 60 days' advance written notice to Bayer.

(4) We are obligated to pay an annual license maintenance fee of CAD\$8,000 to UBC, which has been translated based on the December 31, 2010 exchange rate of US\$1.00 = CAD\$0.9946, and rounded to the nearest \$1,000.

Off-Balance Sheet Arrangements

We do not have any off-balance-sheet financing arrangements at December 31, 2010.

Inflation

We do not believe that inflation has had a material effect on our business and results of operations during the periods presented.

Contingencies and Commitments

Teva Pharmaceutical Industries Ltd.

In December 2009, OncoGenex Pharmaceuticals, Inc., through its wholly owned subsidiary, OncoGenex Technologies, entered into a Collaboration Agreement with Teva for the development and global commercialization of custirsen (and related compounds). Under the Collaboration Agreement, Teva made upfront payments in the aggregate amount of \$50 million, up to \$370 million upon the achievement of developmental and commercial milestones and royalties at percentage rates ranging from the mid-teens to mid-twenties on net sales. We are required to contribute \$30 million in direct and indirect costs towards the Clinical Development Plan. We incurred \$8.4 million of these costs in 2009 and 2010, resulting in a remaining funding responsibility of \$21.6 million, which has been recorded as deferred collaboration revenue. Teva will fund all other expenses under the Clinical Development Plan.

Pursuant to the Collaboration Agreement, we and Teva agreed to collaborate in the development and global commercialization of custirsen. Teva received the exclusive worldwide right and license to develop and commercialize products containing custirsen and related compounds. We have an option to co-promote custirsen in the United States and Canada.

In addition to the development costs noted above, Teva is also responsible for all costs relating to product commercialization, including costs incurred in relation to our co-promotion option, except for start-up costs in advance of commercialization.

Isis Pharmaceuticals Inc. and University of British Columbia

Pursuant to license agreements we have with UBC and Isis, we are obligated to pay milestone payments of up to CAD\$1.6 million and CAD\$7.75 million, respectively, upon achieving specified product development milestones related to OGX-427 and OGX-225 and royalties on future product sales.

In addition, we are required to pay to Isis 30% of all Non-Royalty Revenue we receive. Isis has disclosed in its SEC filings that it is entitled to receive 30% of the up to \$370 million in milestone payments we may receive from Teva as part of the Collaboration Agreement; however, we believe that certain of the milestone payments related to sales targets may qualify as Royalty Revenue, and therefore be subject to the lesser payment obligations. No assurance can be provided that we will be entitled to receive these milestone payments or, if we are, that the applicable amount payable to Isis will be less than 30%. We are also obligated to pay to UBC certain patent costs and annual license maintenance fees for the extent of the patent life of CAD\$8,000 per year. We paid Isis and UBC \$750,000 and CAD\$100,000, respectively, in 2010 upon the initiation of a phase 2 clinical trial of OGX-427 in patients with CRPC. These payments were included in R&D expense. We do not anticipate making any royalty payments to Isis in 2011.

The UBC agreements have effective dates ranging from November 1, 2001 to April 5, 2005 and each agreement expires upon the later of 20 years from its effective date or the expiry of the last patent licensed thereunder, unless otherwise terminated.

Unless otherwise terminated, the Isis agreements for custirsen and OGX-427 will continue for each product until the later of 10 years after the date of the first commercial product sale, or the expiration of the last to expire of any

patents required to be licensed in order to use or sell the product, unless OncoGenex Technologies abandons either custirsen or OGX-427 and Isis does not elect to unilaterally continue development. The Isis agreement for OGX-225 will continue into perpetuity unless OncoGenex Technologies abandons the product and Isis does not elect to unilaterally continue development.

To facilitate the execution and performance of the Collaboration Agreement with Teva, we and Isis agreed to amend the Isis License Agreement and we and UBC agreed to amend the UBC License Agreement, in each case, effective December 19 and December 20, 2009, respectively.

The amendment to the Isis License Agreement provides, among other things, that if we are the subject of a change of control with a third party, where the surviving company immediately following such change of control has the right to develop and sell the product, then (i) a milestone payment of \$20 million will be due and payable to Isis 21 days following the first commercial sale of the product in the United States; and (ii) unless such surviving entity had previously sublicensed the product and a royalty rate payable to Isis by us has been established, the applicable royalty rate payable to Isis will thereafter be the maximum amount payable under the Isis License Agreement. Any non-royalty milestone amounts previously paid will be credited towards the \$20 million milestone if not already paid. As a result of the \$10 million milestone payment payable to Isis in relation to the Collaboration Agreement, the remaining amount owing in the event of change of control discussed above is a maximum of \$10 million. As we have licensed the product to Teva and established a royalty rate payable to Isis, no royalty rate adjustments would apply if Teva acquires us and is the surviving company. If we have not spent the \$30 million in advanced reimbursement of development activities prior to the third anniversary of the Collaboration Agreement with Teva, we will pay Isis an amount equal to 30% of any un-spent portion less \$3.5 million.

Bayer HealthCare LLC

On August 7, 2008, Sonus completed an exclusive in-licensing agreement with Bayer HealthCare LLC for the right to develop, commercialize or sublicense a family of compounds known as caspase activators presently in pre-clinical research. Under terms of the agreement, Sonus was granted exclusive rights to develop two core compounds for all prophylactic and therapeutic uses in humans. Additionally, Sonus was granted rights to all other non-core compounds covered under the patents for use in oncology.

Under the terms of the agreement, Bayer received an upfront license fee of \$450,000. We will make annual payments to Bayer on the anniversary date, or Anniversary Payments, with an initial payment of \$100,000 paid in 2008. The payments increase by \$25,000 each year until the initiation of the first phase 3 clinical trial, at which point the Anniversary Payments reset to \$100,000 each year and increase by \$25,000 until we achieve either the first NDA filing in the United States or the European Union. Anniversary payments are included in R&D expense. We are obligated to pay royalties on net future product sales in addition to aggregate milestone payments of up to \$14 million for clinical development and regulatory milestones. No milestone payments are triggered prior to the initiation of a phase 3 clinical trial. We have the option to terminate this contract upon 60 days' written notice to Bayer.

Lease Arrangements

We have an operating lease agreement for office space in Vancouver, Canada, which expires in September 2014.

Future minimum annual lease payments under the Vancouver lease are as follows (in thousands):

| | CAD |
|--------------|---------------|
| 2011 | \$ 128 |
| 2012 | 107 |
| 2013 | 107 |
| 2014 | 80 |
| Total | \$ 422 |

In November 2006, prior to the Arrangement, Sonus entered into a non-cancellable operating lease agreement for office space in Bothell, Washington, expiring in 2017. See Note 5 of Notes to Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K for further details on the Arrangement. In connection with the lease, Sonus was required to provide a cash security deposit of approximately \$497,000, which is included in Other Long Term Assets. In addition, a standby letter of credit was issued in 2010, and \$502,000 was deposited in a restricted money market account as collateral. We are currently in the process of evaluating opportunities to exit or sublet portions of the leased space and have recorded a liability in the excess facilities lease charge of \$7,467,000 as at December 31, 2010. See Note 8 of Notes to Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K for further details on our lease arrangements.

If we are unable to exit or sublet portions of this leased space, the future minimum annual lease payments are as follows (in thousands):

| | | |
|-----------|----|---------------|
| 2011 | \$ | 2,055 |
| 2012 | | 2,117 |
| 2013 | | 2,180 |
| 2014 | | 2,246 |
| 2015 | | 2,313 |
| Remainder | | 4,837 |
| Total | \$ | <u>15,748</u> |

Consolidated rent payments relating to both the Vancouver, Canada and Bothell, Washington office space for the years ended December 31, 2010, 2009, and 2008 were \$2,338,000, \$2,408,000, and \$801,000, respectively.

Guarantees and Indemnifications

We indemnify our officers and directors for certain events or occurrences, subject to certain limits, while the officer or director is or was serving at our request in such capacity. The term of the indemnification period is equal to the officer's or director's lifetime.

The maximum amount of potential future indemnification is unlimited; however, we have obtained director and officer insurance that limits our exposure and may enable it to recover a portion of any future amounts paid. We believe that the fair value of these indemnification obligations is minimal. Accordingly, we have not recognized any liabilities relating to these obligations as of December 31, 2010.

We have certain agreements with certain organizations with which we do business that contain indemnification provisions pursuant to which we typically agree to indemnify the party against certain types of third-party claims. We accrue for known indemnification issues when a loss is probable and can be reasonably estimated. There were no accruals for or expenses related to indemnification issues for any period presented.

Material Changes in Financial Condition

| (in thousands) | December 31, 2010 | December 31, 2009 |
|-------------------|--------------------------|--------------------------|
| Total Assets | \$89,918 | \$68,980 |
| Total Liabilities | \$45,793 | \$46,021 |
| Total Equity | \$44,125 | \$22,959 |

The increase in assets from December 31, 2009 to December 31, 2010 primarily relates to an increase in cash, cash equivalents and marketable securities following the October 2010 public offering, offset by costs incurred in relation to the custirsen Clinical Development Plan. The reduction in liabilities from December 31, 2009 relates to milestone payments made to Isis and UBC in 2010 resulting from our Collaboration Agreement with Teva, and lower deferred collaboration revenue reflecting our contribution to the custirsen Clinical Development Plan in 2010. The increase in equity relates primarily to the issuance of shares through the public offering of our common stock in October 2010.

Critical Accounting Policies and Estimates

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and notes thereto. Actual results could differ from those estimates. Estimates and assumptions principally relate to the performance period of our deliverables under our Collaboration Agreement with Teva, estimates of the fair value and forfeiture rates of stock options issued to employees and consultants, the resolution of uncertain tax positions and estimates of the fair value of our excess lease facility liability.

Cash Equivalents

We consider all highly liquid investments with an original maturity of three months or less to be cash equivalents, which we consider as available for sale and are carried at market value with unrealized gains and losses, if any, reported as accumulated other comprehensive income or loss, which is a separate component of stockholders' equity.

Short-Term Investments

Short-term investments consist of financial instruments purchased with an original maturity of greater than three months and less than one year. We consider our short-term investments as available-for-sale and they are carried at market value with unrealized gains and losses, if any, reported as accumulated other comprehensive income or loss, which is a separate component of stockholders' equity (deficiency). Realized gains and losses on the sale of these securities are recognized in net income or loss. The cost of investments sold is based on the specific identification method.

Fair value of financial instruments

The fair value of our cash equivalents and marketable securities is based on quoted market prices and trade data for comparable securities. Other financial instruments including amounts receivable, accounts payable and accrued liabilities, are carried at cost, which we believe approximates fair value because of the short-term maturities of these instruments.

Intellectual Property

The costs of acquiring intellectual property rights to be used in the research and development process, including licensing fees and milestone payments, are charged to research and development expense as incurred in situations where we have not identified an alternative future use for the acquired rights, and are capitalized in situations where we have identified an alternative future use. No costs associated with acquiring intellectual property rights have been capitalized to date. Costs of maintaining intellectual property rights are expensed as incurred.

Revenue Recognition

Revenue recognized to date is attributable solely to the upfront payment we received in the fourth quarter of 2009 pursuant to our Collaboration Agreement with Teva, as well as cash reimbursements from Teva for certain costs incurred by us under the Clinical Development Plan. Under the Collaboration Agreement, we and Teva share certain cistursen-related development costs. We are required to spend \$30 million in direct and indirect development costs, such as full-time equivalent, reimbursement for time incurred by our personnel for the benefit of the Clinical Development Plan, such contribution to be funded by the upfront payment provided by Teva as an advanced reimbursement for our R&D expenses, or reimbursed to us on a cash basis. Teva will fund all other expenses under the Clinical Development Plan. When we have fulfilled our requirement to spend \$30 million in direct and indirect development costs, including full-time equivalents, Teva will, on a quarterly basis, reimburse all development expenses incurred in accordance with the Clinical Development Plan. Our policy is to account for these reimbursements as collaboration revenue.

For a description of the Collaboration Agreement, see Note 4 of Notes to Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K.

The Collaboration Agreement contains multiple elements and deliverables, and requires evaluation pursuant to ASC 605-25, *Multiple-Element Arrangements*, or ASC 605-25. We evaluated the facts and circumstances of the Collaboration Agreement to determine whether we had obligations constituting deliverables under ASC 605-25. We concluded that we had multiple deliverables under the Collaboration Agreement, including deliverables relating to the grant of a technology license, and performance of manufacturing, regulatory and clinical development services in the United States and Canada, and estimated that the period in which we would perform those deliverables began in the fourth quarter of 2009 and will be completed in the fourth quarter of 2012. Because we were able to establish vendor specific objective evidence, or VSOE, of the fair value of the maintenance, regulatory, and clinical services, we concluded that these deliverables should be accounted as separate units of accounting under ASC 605-25. In establishing VSOE for the manufacturing, regulatory and clinical development services, our management relied on rates charged by other service providers providing similar development services.

We will recognize \$30 million allocated to the manufacturing, regulatory and clinical development services element as revenue over the estimated performance period, using the proportional performance model, of which \$8.4 million has been recognized to date. Estimation of the performance period of our deliverables required management's judgment. Significant factors considered in management's evaluation of the estimated performance period include, but are not limited to, our experience, along with Teva's experience, in conducting clinical development activities. We will review the estimated duration of our performance period on a quarterly basis and make any appropriate adjustments on a prospective basis. Future changes in estimates of the performance period may materially impact the timing of the future revenue recognized under the Collaboration Agreement.

Because management is not able to reliably estimate the fair value of the technology license, it used the residual value approach to determine the amount of revenue to recognize. Based on this approach, we recognized \$22 million in 2009 relating to this element.

Under the Collaboration Agreement, we are entitled to receive up to \$370 million upon the achievement of developmental and commercial milestones. Management evaluated the nature of the events triggering these contingent payments and concluded that these events constituted substantive milestones. This conclusion was based primarily on the facts that each triggering event represents a specific outcome that can be achieved only through successful performance by us of one or more of our deliverables, and that achievement of each triggering event was subject to inherent risk and uncertainty and would result in additional payments becoming due to us. Management concluded that each of these milestones was substantive, based primarily on the facts that the payments they trigger are non-refundable, that achievement of the milestone entails risk and was not reasonably assured at inception of the Collaboration Agreement, that substantial effort is required to complete each milestone, that the amount of each milestone payment is reasonable in relation to the value created in achieving the milestone, that a substantial amount of time is expected to pass between the upfront payment and the potential milestone payments, and that the milestone payments, once received, relate solely to past performance. Based on the foregoing, we will recognize any revenue from these milestone payments under the substantive milestone method in the period in which the underlying triggering event occurs.

Under the Collaboration Agreement, we are also entitled to receive percentage royalties on sales of custirsen ranging from the mid-teens to the mid-twenties. We will recognize any revenue from these events based on the revenue recognition criteria set forth in ASC 605, *Revenue Recognition*. Based on those criteria, we consider these potential payments to be contingent revenue, and will recognize them as revenue in the period in which the applicable contingency is resolved.

Property and Equipment

Property and equipment assets are recorded at cost less accumulated depreciation. Depreciation expense on assets acquired under capital lease is recorded within depreciation expense. Depreciation is provided on a straight-line basis over the following periods:

| | |
|------------------------|----------------------------|
| Computer equipment | 3 years |
| Furniture and fixtures | 5 years |
| Leasehold improvements | Over the term of the lease |

Reporting Currency and Foreign Currency Translation

Effective August 21, 2008, we changed our functional currency from the Canadian dollar to the U.S. dollar. Our primary economic environment changed from Canada to the United States following the acquisition of Sonus. See Note 5 of Notes to Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K for further details on the Arrangement. This resulted in significant changes in economic facts and circumstances that indicated that the functional currency had changed. We accounted for the change in functional currency prospectively.

Our consolidated financial statements for the period of January 1, 2008 to August 20, 2008, which are based on the Canadian functional currency, has been translated into the U.S. reporting currency using the current rate method as required by ASC 830, *Foreign Currency Matters*, or ASC 830, as follows: assets and liabilities using the rate of exchange prevailing at the balance sheet date; stockholders' equity using the applicable historic rate; and revenue and expenses using the monthly average rate of exchange. Translation adjustments have been included as part of the accumulated other comprehensive income.

Income Taxes

Income taxes are accounted for under the liability method. Deferred tax assets and liabilities are recognized for the differences between the carrying values of assets and liabilities and their respective income tax bases and for operating losses and tax credit carryforwards. A valuation allowance is provided for the portion of deferred tax assets that is more likely than not to be unrealized. Deferred tax assets and liabilities are measured using the enacted tax rates and laws.

Scientific Research and Development Tax Credits

The benefits of tax credits for scientific research and development expenditures are recognized in the year the qualifying expenditure is made provided there is reasonable assurance of recoverability. The tax credits recorded are based on management's estimates of amounts expected to be recovered and are subject to audit by taxation authorities. The refundable tax credit reduces the carrying cost of expenditures for research and development expenses to which it relates. The non-refundable tax credit reduces the tax provision. Following the completion of the Arrangement, all qualifying expenditures are eligible for non-refundable tax credits only. See Note 4 of Notes to Consolidated Financial Statements for further details on the Arrangement.

Therapeutic Discovery Research Grants

The Internal Revenue Service's therapeutic discovery tax credit program, created under the Patient Protection and Affordable Care Act of 2010 provides tax credits or grants representing up to 50% of eligible qualified investments in therapeutic discovery projects during tax years 2009 and 2010. We applied for and received funds under this program to support our custirsen and OGX-427 development projects. The benefits of research grants under the Internal Revenue Service's therapeutic discovery tax credit program are recognized in the year the qualifying expenditure is approved, provided that there is reasonable assurance of recoverability. The tax grants recorded are based on management's estimates of amounts expected to be received and are subject to audit by taxation authorities. The research grants reduce the carrying cost of expenditures for research and development expenses to which it relates.

R&D Expenses

R&D expenses are expensed as incurred, net of related refundable investment tax credits, with the exception of non-refundable advanced payments for goods or services to be used in future research and development, which are capitalized in accordance with ASC 730, *Research and Development*, and are included in prepaid expenses.

Clinical trial expenses are a component of R&D expenses. These expenses include fees paid to contract research organizations and investigators and other service providers, which conduct certain product development activities on our behalf. We use an accrual basis of accounting, based on estimates of the amount of service completed. In the event payments differ from the amount of service completed, prepaid expense or accrued liabilities amounts are adjusted on the balance sheet. These expenses are based on estimates of the work performed under service agreements, milestones achieved, patient enrollment and experience with similar contracts. We monitor each of these factors to the extent possible and adjusts estimates accordingly.

Stock-Based Compensation

Effective January 1, 2006, we adopted the fair value recognition provisions of the ASC 718, *Stock Compensation*, using the modified prospective method with respect to options granted to employees and directors. Under this transition method, compensation cost is recognized in the financial statements beginning with the effective date for all share-based payments granted after January 1, 2006 and for all awards granted prior to but not yet vested as of January 1, 2006. The expense is amortized on a straight-line basis over the graded vesting period.

Segment Information

We follow the requirements of ASC 280, *Segment Reporting*. We have one operating segment, dedicated to the development and commercialization of new cancer therapies, with operations located in Canada and the United States.

Comprehensive Income (Loss)

Comprehensive income (loss) is comprised of net income (loss) and other comprehensive income (loss). Other comprehensive income (loss) consists of translation adjustments from the application of U.S. dollar reporting until August 21, 2008 and unrealized gains and losses on our available-for-sale marketable securities. We have reported the components of comprehensive loss in the statement of stockholders' equity.

Loss per Common Share

Basic loss per common share is computed using the weighted average number of common shares outstanding during the period adjusted to reflect the equivalent OncoGenex Pharmaceuticals shares and equity structure. Prior to the completion of the Arrangement on August 21, 2008, the weighted average number of common shares represents OncoGenex Technologies only. Diluted loss per common share is computed in accordance with the treasury stock method, which uses the weighted average number of common shares outstanding during the period. The effect of potentially issuable common shares from outstanding stock options, convertible preferred shares, and debentures is anti-dilutive for all periods presented.

Warrants

We account for warrants pursuant to the authoritative guidance on accounting for derivative financial instruments indexed to, and potentially settled in, a company's own stock, on the understanding that in compliance with applicable securities laws, the warrants require the issuance of registered securities upon exercise and do not sufficiently preclude an implied right to net cash settlement. We classify warrants on the consolidated balance sheet as a liability which is revalued at each balance sheet date subsequent to the initial issuance. Determining the appropriate fair-value model and calculating the fair value of registered warrants requires considerable judgment, including estimating stock price volatility and expected warrant life. The computation of expected volatility was based on the historical volatility of comparable companies from a representative peer group selected based on

industry and market capitalization. A small change in the estimates used may have a relatively large change in the estimated valuation. We use the Black-Scholes pricing model to value the warrants. Changes in the fair market value of the warrants are reflected in the consolidated statement of loss as gain (loss) on revaluation of warrants.

Reclassifications

Certain prior period balances have been reclassified to conform to the current period presentation. The expenses associated with adjustments to sublease income assumptions relating to our Bothell facility were reclassified during the third quarter of 2010 from research and development expenses to restructuring expenses. See Note 8 of Notes to Consolidated Financial Statements for further details on our lease arrangements. This reclassification on the statements of loss was made in all prior periods presented for comparability purposes. This reclassification had no effect on net loss, stockholders' equity, total assets and total liabilities, or the major categories of the cash flow statement.

Recently Adopted Accounting Policies

In January 2010, the FASB issued amended guidance on fair value measurements and disclosures. The new guidance requires additional disclosures regarding fair value measurements, amends disclosures about postretirement benefit plan assets, and provides clarification regarding the level of disaggregation of fair value disclosures by investment class. This guidance is effective for interim and annual reporting periods beginning after December 15, 2009, except for certain "Level 3" activity disclosure requirements that will be effective for reporting periods beginning after December 15, 2010. Accordingly, we adopted this amendment in the quarter ended March 31, 2010, except for the additional Level 3 requirements, which will be adopted in 2011.

Recent Accounting Pronouncements

In April 2010, the Financial Accounting Standards Board, or FASB, issued ASU No. 2010 - 17 - Revenue Recognition - Milestone Method (Topic 605): Milestone Method of Revenue Recognition. This standard provides guidance on defining a milestone and determining when it may be appropriate to apply the milestone method of revenue recognition for certain research and development transactions. Under this new standard, a company can recognize as revenue consideration that is contingent upon achievement of a milestone in the period in which it is achieved, only if the milestone meets all criteria to be considered substantive. This standard will be effective for us on a prospective basis for periods beginning after January 1, 2011. We are currently evaluating the potential impact of this standard.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Risk

Interest rate risk is the risk that the fair values and future cash flows of financial instruments will fluctuate because of the changes in market interest rates. We invest our cash in a variety of financial instruments, primarily in short-term bank deposits, money market funds, and domestic and foreign commercial paper and government securities. These investments are denominated in U.S. dollars, and our exposure to interest rate changes is monitored. We have very limited interest rate risk due to the few assets or liabilities subject to fluctuations in interests rates. Our investment portfolio includes only marketable securities with active secondary or resale markets to help ensure portfolio liquidity. Due to the nature of our highly liquid marketable securities, a change in interest rates would not materially change the fair market value.

Foreign Currency Exchange Risk

We are exposed to risks associated with foreign currency transactions on certain contracts and payroll expenses related to our Canadian subsidiary, OncoGenex Technologies, denominated in Canadian dollars and we have not hedged these amounts. As our unhedged foreign currency transactions fluctuate, our earnings might be negatively affected. Accordingly, changes in the value of the U.S. dollar relative to the Canadian dollar might have an adverse effect on our reported results of operations and financial condition; and fluctuations in exchange rates might harm

our reported results and accounts from period to period. We have estimated the effect on our reported results of operations of a hypothetical increase of 10 percent in the exchange rate of the Canadian dollar against the U.S. dollar to be \$350,000 for the year ended December 31, 2010.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of
OncoGenex Pharmaceuticals, Inc.

We have audited the accompanying consolidated balance sheets of **OncoGenex Pharmaceuticals, Inc.** (the "Company") as of December 31, 2010 and 2009, and the related consolidated statements of loss, shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2010. 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 **OncoGenex Pharmaceuticals, Inc.** at December 31, 2010 and 2009, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2010, 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), **OncoGenex Pharmaceuticals, Inc.**'s internal control over financial reporting as of December 31, 2010, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 10, 2011 expressed an unqualified opinion thereon.

Vancouver, Canada,
March 10, 2011

/s/ ERNST & YOUNG LLP
Chartered Accountants

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of
OncoGenex Pharmaceuticals, Inc.

We have audited **OncoGenex Pharmaceuticals, Inc.'s** (the "Company") internal control over financial reporting as of December 31, 2010, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the "COSO" criteria). The Company'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.

In our opinion, **OncoGenex Pharmaceuticals, Inc.** maintained, in all material respects, effective internal control over financial reporting as of December 31, 2010, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of the Company as of December 31, 2010 and 2009, and the related consolidated statements of loss, shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2010 and our report dated March 10, 2011 expressed an unqualified opinion thereon.

Vancouver, Canada,
March 10, 2011

/s/ ERNST & YOUNG LLP
Chartered Accountants

OncoGenex Pharmaceuticals, Inc.

Consolidated Balance Sheets

(In thousands of U.S. dollars)

| | December 31, 2010 | December 31, 2009 |
|--|----------------------|----------------------|
| | \$ | \$ |
| ASSETS | | |
| Current | | |
| Cash and cash equivalents <i>[note 6]</i> | 23,533 | 62,051 |
| Restricted cash <i>[note 6]</i> | 502 | — |
| Short-term investments <i>[note 6]</i> | 61,574 | 2,517 |
| Amounts receivable | 1,224 | 3,109 |
| Prepaid expenses | 2,485 | 722 |
| Total current assets | 89,318 | 68,399 |
| Property and equipment, net <i>[note 7]</i> | 87 | 72 |
| Other assets <i>[note 9]</i> | 513 | 509 |
| Total assets | 89,918 | 68,980 |
| LIABILITIES AND SHAREHOLDERS' EQUITY | | |
| Current | | |
| Accounts payable and accrued liabilities | 893 | 14,453 |
| Deferred collaboration revenue <i>[note 4]</i> | 10,000 | 10,000 |
| Current portion of long-term obligations <i>[note 8]</i> | 1,314 | 1,328 |
| Warrant liability <i>[note 6, note 11]</i> | 15,269 | — |
| Total current liabilities | 27,476 | 25,781 |
| Deferred collaboration revenue, net of current <i>[note 4]</i> | 11,622 | 16,528 |
| Long-term obligations, less current portion <i>[note 8]</i> | 6,695 | 3,712 |
| Total liabilities | 45,793 | 46,021 |
| Commitments and contingencies <i>[note 13]</i> | | |
| Shareholders' equity: | | |
| Common shares <i>[note 11]</i> : | | |
| \$0.001 par value 25,000,000 shares authorized and 9,693,591 issued and outstanding at December 31, 2010 | 10 | 6 |
| Additional paid-in capital | 107,579 | 73,798 |
| Accumulated deficit | (66,069) | (53,485) |
| Accumulated other comprehensive income | 2,605 | 2,640 |
| Total shareholders' equity | 44,125 | 22,959 |
| Total liabilities and shareholders' equity | 89,918 | 68,980 |
| <i>Subsequent events [note 16]</i> | | |

See accompanying notes.

OncoGenex Pharmaceuticals, Inc.

Consolidated Statements of Loss

(In thousands of U.S. dollars, except share and per share amounts)

| | Years Ended December 31, | | |
|---|-----------------------------|----------------|-----------------|
| | 2010 | 2009 | 2008 |
| | \$ | \$ | \$ |
| COLLABORATION REVENUE | 13,616 | 25,539 | — |
| EXPENSES | | | |
| Research and development | 18,483 | 20,209 | 7,819 |
| General and administrative <i>[note 12]</i> | 5,840 | 3,961 | 3,293 |
| Restructuring expense <i>[note 8]</i> | 4,038 | 3,951 | — |
| Total expenses | 28,361 | 28,121 | 11,112 |
| OTHER INCOME (EXPENSE) | | | |
| Interest income | 86 | 47 | 210 |
| Other | 6 | 70 | 211 |
| Warrant issuance costs | (1,027) | — | — |
| Gain (loss) on warrants | 96 | — | — |
| Total other income (expense) | (839) | 117 | 421 |
| Loss for the period before taxes and extraordinary gain | (15,584) | (2,465) | (10,691) |
| Income tax expense (recovery) <i>[note 10]</i> | (3,000) | 3,011 | (2,059) |
| Loss before extraordinary gain | (12,584) | (5,476) | (8,632) |
| Extraordinary gain <i>[note 5]</i> | — | — | 4,428 |
| Net loss | (12,584) | (5,476) | (4,204) |
| Redeemable convertible preferred share accretion | — | — | 1,973 |
| Loss attributable to common shareholders | (12,584) | (5,476) | (6,177) |
| Basic and diluted loss per common share <i>[note 11[h]]</i> | (1.79) | (.95) | (3.38) |
| Weighted average number of common shares <i>[note 11[h]]</i> | 7,030,903 | 5,766,850 | 1,829,276 |

See accompanying notes.

OncoGenex Pharmaceuticals, Inc.

Consolidated Statements of Shareholders' Equity

(In thousands of U.S. dollars, except share amounts)

| | Number of Common Shares | Additional Paid-In Capital | Accumulated Other Comprehensive Income (Loss) | Comprehensive Income (Loss) | Accumulated deficit | Total Shareholders' Equity (Deficiency) |
|---|-------------------------------|----------------------------------|--|--------------------------------|------------------------|--|
| (in thousands of U.S. dollars, except share amounts) | | | | | | |
| Balance, December 31, 2007 | <u>118,801</u> | <u>966</u> | <u>2,643</u> | | <u>(41,832)</u> | <u>(38,223)</u> |
| Stock-based compensation expense | | 174 | | | | 174 |
| Shares held by Sonus shareholders | 2,059,898 | 10,456 | | | | 10,456 |
| Shares issued in exchange for convertible debentures | 1,036,586 | 5,012 | | | | 5,012 |
| Shares issued in exchange for preferred shares | 905,131 | 39,345 | | | | 39,345 |
| Escrow shares released on achievement of milestones | 1,388,875 | | | | | |
| Stock option exercises | 34,601 | 122 | | | | 122 |
| Issuance of common stock under employee benefit plans | 222 | 1 | | | | 1 |
| Cumulative translation adjustment from application of US dollar reporting | | | (3) | (3) | | (3) |
| Redeemable convertible preferred share accretion | | | | | (1,973) | (1,973) |
| Loss for the period | | | | <u>(4,204)</u> | (4,204) | (4,204) |
| Comprehensive loss for the period | | | | <u>(4,207)</u> | | |
| Balance, December 31, 2008 | <u>5,544,114</u> | <u>56,076</u> | <u>2,640</u> | | <u>(48,009)</u> | <u>10,707</u> |
| Stock-based compensation expense | | 380 | | | | 380 |
| Shares issued in July 2009 financing | 475,000 | 9,304 | | | | 9,304 |
| Shares issued in Teva share purchase agreement | 267,531 | 7,903 | | | | 7,903 |
| Stock option exercises | 37,388 | 141 | | | | 141 |
| Loss for the period | | | | <u>(5,476)</u> | (5,476) | (5,476) |
| Comprehensive loss for the period | | | | <u>(5,476)</u> | | |
| Balance, December 31, 2009 | <u>6,324,033</u> | <u>73,804</u> | <u>2,640</u> | | <u>(53,485)</u> | <u>22,959</u> |
| Stock-based compensation expense | | 642 | | | | 642 |
| Shares issued in October 2010 financing | 3,174,602 | 32,319 | | | | 32,319 |
| Unrealized loss on marketable securities | | | (35) | (35) | | (35) |
| Stock option exercises | 194,956 | 824 | | | | 824 |
| Loss for the period | | | | <u>(12,584)</u> | (12,584) | (12,584) |
| Comprehensive loss for the period | | | | <u>(12,584)</u> | | |
| Balance, December 31, 2010 | <u>9,693,591</u> | <u>107,589</u> | <u>2,605</u> | | <u>(66,069)</u> | <u>44,125</u> |

OncoGenex Pharmaceuticals, Inc.
Consolidated Statements of Cash Flows

(In thousands of U.S. dollars)

| | Years ended December 31, | | |
|--|-----------------------------|---------------|-----------------|
| | 2010 | 2009 | 2008 |
| | \$ | \$ | \$ |
| OPERATING ACTIVITIES | | | |
| Loss for the period | 12,584 | 5,476 | 4,204 |
| Add items not involving cash | | | |
| Extraordinary loss | — | — | (4,428) |
| Warrant issuance costs | 1,027 | — | — |
| Change in value of warrants | (96) | — | — |
| Depreciation | 52 | 50 | 89 |
| Stock-based compensation [note 11[c]] | 642 | 380 | 174 |
| Accrued interest on convertible debenture [note 11] | — | — | 313 |
| Restructuring expense [note 8] | 4,038 | 3,951 | — |
| Changes in non-cash working capital items | | | |
| Amounts receivable (payable) | 1,885 | (2,955) | 204 |
| Investment tax credit recoverable | — | 1,090 | 646 |
| Restricted cash | (502) | — | — |
| Prepaid expenses | (1,763) | (136) | — |
| Other assets | (4) | (12) | (117) |
| Accounts payable and accrued liabilities | (13,560) | 12,200 | (2,244) |
| Lease obligation [note 8] | (1,069) | (741) | (253) |
| Deferred collaboration revenue [note 4] | (4,906) | 26,527 | — |
| Taxes payable on preferred shares | — | — | (2,487) |
| Cash provided by (used in) operating activities | (26,840) | 34,878 | (12,307) |
| FINANCING ACTIVITIES | | | |
| Cash paid on fractional shares eliminated on reverse share split | — | — | (3) |
| Proceeds from issuance of common stock under stock option and employee benefit plans | 824 | 141 | 124 |
| Issuance of warrants, net of warrant issuance costs | 14,338 | — | — |
| Issuance of common shares, net of share issue costs | 32,319 | 17,206 | — |
| Cash provided by financing activities | 47,481 | 17,347 | 121 |
| INVESTING ACTIVITIES | | | |
| Purchase of investments | (93,018) | (4,036) | (4,843) |
| Proceeds from sale of investments | 33,960 | 6,280 | 15,276 |
| Purchase of property and equipment | (68) | (15) | (3) |
| Cash received on reverse takeover of Sonus | — | — | 5,464 |
| Transaction fees on reverse takeover of Sonus | — | — | (807) |
| Cash provided by (used in) investing activities | (59,126) | 2,229 | 15,087 |
| Effect of exchange rate changes on cash | (33) | (21) | 90 |
| Increase in cash and cash equivalents during the period | (38,518) | 54,433 | 2,992 |
| Cash and cash equivalents, beginning of the period | 62,051 | 7,618 | 4,626 |
| Cash and cash equivalents, end of the period | 23,533 | 62,051 | 7,618 |
| Supplemental cash flow information | | | |
| Property and equipment acquired under lease obligation | — | 65 | — |

See accompanying notes.

OncoGenex Pharmaceuticals, Inc.

Notes to Consolidated Financial Statements

1. NATURE OF BUSINESS AND BASIS OF PRESENTATION

OncoGenex Pharmaceuticals, Inc. (the "Company" or "OncoGenex") is committed to the development and commercialization of new therapies that address treatment resistance in cancer patients. The Company was incorporated in the state of Delaware and, together with its subsidiaries, has a facility in Bothell, Washington and an office in Vancouver, British Columbia (Canada).

During the year ended December 31, 2009, the Company exited the development stage. Previously from its inception, the Company was a development stage company in accordance with Accounting Standards Codification, or ASC, 915, Accounting and Reporting by Development Stage Enterprises.

Basis of Presentation

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States. The consolidated financial statements include the accounts of OncoGenex Pharmaceuticals, Inc. and our wholly owned subsidiaries, OncoGenex Technologies and OncoGenex, Inc. OncoGenex, Inc. ceased operations in 2009 and was subsequently dissolved. All intercompany balances and transactions have been eliminated.

Liquidity

The Company has historically experienced recurring losses from operations that have generated an accumulated deficit of \$66.1 million through December 31, 2010. At December 31, 2010, the Company had cash, cash equivalents and short-term investments of \$85.1 million.

2. ACCOUNTING POLICIES

Significant Accounting Policies

Use of Estimates

The preparation of consolidated financial statements in conformity with United States generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and notes thereto. Actual results could differ from those estimates. Estimates and assumptions principally relate to the performance period of the Company's deliverables under its Collaboration and License Agreement, or Collaboration Agreement, with Teva Pharmaceutical Industries Ltd., or Teva, estimates of the initial fair value and forfeiture rates of stock options issued to employees and consultants, the resolution of uncertain tax positions and estimates of the fair value of our excess lease facility liability.

Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less to be cash equivalents, which the Company considers as available for sale and are carried at market value with unrealized gains and losses, if any, reported as accumulated other comprehensive income or loss, which is a separate component of shareholders' equity (deficiency).

Short-Term Investments

Short-term investments consist of financial instruments purchased with an original maturity of greater than three months and less than one year. The Company considers its short-term investments as available-for-sale and they are carried at market value with unrealized gains and losses, if any, reported as accumulated other comprehensive income or loss, which is a separate component of shareholders' equity (deficiency). Realized gains and losses on the

sale of these securities are recognized in net income or loss. The cost of investments sold is based on the specific identification method.

Fair value of financial instruments

The fair value of the Company's cash equivalents and marketable securities is based on quoted market prices and trade data for comparable securities. Other financial instruments including amounts receivable, accounts payable and accrued liabilities, are carried at cost, which the Company believes approximates fair value because of the short-term maturities of these instruments.

Intellectual Property

The costs of acquiring intellectual property rights to be used in the research and development process, including licensing fees and milestone payments, are charged to research and development expense as incurred in situations where the Company has not identified an alternative future use for the acquired rights, and are capitalized in situations where it has identified an alternative future use. No costs associated with acquiring intellectual property rights have been capitalized to date. Costs of maintaining intellectual property rights are expensed as incurred.

Revenue Recognition

Revenue recognized to date is attributable solely to the upfront payment the Company received in the fourth quarter of 2009 pursuant to its Collaboration Agreement with Teva, as well as cash reimbursements from Teva for certain costs incurred by OncoGenex under the Clinical Development Plan we and Teva developed under which three phase 3 clinical trials will be initiated. Under the Collaboration Agreement, the Company and Teva share certain custirsen-related development costs. The Company is required to spend \$30 million in direct and indirect development costs such as full-time equivalent (FTE) reimbursement for time incurred by OncoGenex personnel for the benefit of the custirsen development plan, such contribution to be funded by the upfront payment provided by Teva as an advanced reimbursement for the Company Development Expenses, or reimbursed to OncoGenex on a cash basis. Teva will fund all other expenses under the Clinical Development Plan. When the Company has fulfilled its requirement to spend \$30 million in direct and indirect development costs, including FTEs, Teva will, on a quarterly basis, reimburse all development expenses incurred in accordance with the Clinical Development Plan. The Company's policy is to account for these reimbursements as Collaboration Revenue.

For a description of the Collaboration Agreement, see note 4.

The Collaboration Agreement contains multiple elements and deliverables, and requires evaluation pursuant to ASC 605-25, *Multiple-Element Arrangements*, or ASC 605-25. The Company evaluated the facts and circumstances of the Collaboration Agreement to determine whether it had obligations constituting deliverables under ASC 605-25. The Company concluded that it had multiple deliverables under the Collaboration Agreement, including deliverables relating to the grant of a technology license, and performance of manufacturing, regulatory and clinical development services in the U.S. and Canada, and estimated that the period in which the Company would perform those deliverables began in the fourth quarter of 2009 and will be completed in the fourth quarter of 2012. Because the Company was able to establish vendor specific objective evidence, or VSOE, of the fair value of the maintenance, regulatory, and clinical services, the Company concluded that these deliverables should be accounted as separate units of accounting under ASC 605-25. In establishing VSOE for the manufacturing, regulatory, and clinical development services, management relied on rates charged by other service providers providing similar development services.

The Company will recognize \$30 million allocated to the manufacturing, regulatory and clinical development services element as revenue over the estimated performance period, using the proportional performance model. Estimation of the performance period of the Company's deliverables required the use of management's judgement. Significant factors considered in management's evaluation of the estimated performance period include, but are not limited to its experience, along with Teva's experience, in conducting clinical development activities. The Company will review the estimated duration of its performance period on a quarterly basis and make any appropriate adjustments on a prospective basis. Future changes in estimates of the performance period may materially impact the timing of the future revenue recognized under the Collaboration Agreement.

Because management is not able to reliably estimate the fair value of the technology license, it used the residual value approach to determine the amount of revenue to recognize. Based on this approach, the Company recognized \$22 million in 2009 relating to this element.

Under the Collaboration Agreement, the Company is entitled to receive up to \$370 million upon the achievement of developmental and commercial milestones. Management evaluated the nature of the events triggering these contingent payments and concluded that these events constituted substantive milestones. This conclusion was based primarily on the facts that each triggering event represents a specific outcome that can be achieved only through successful performance by the Company of one or more of its deliverables, and that achievement of each triggering event was subject to inherent risk and uncertainty and would result in additional payments becoming due to the Company. Management concluded that each of these milestones was substantive, based primarily on the facts that the payments they trigger are non-refundable, that achievement of the milestone entails risk and was not reasonably assured at inception of the Collaboration Agreement, that substantial effort is required to complete each milestone, that the amount of each milestone payment is reasonable in relation to the value created in achieving the milestone, that a substantial amount of time is expected to pass between the upfront payment and the potential milestone payments, and that the milestone payments, once received, relate solely to past performance. Based on the foregoing, the Company will recognize any revenue from these milestone payments under the substantive milestone method in the period in which the underlying triggering event occurs.

Under the Collaboration Agreement, the Company is also entitled to receive percentage royalties on sales of cistirsen ranging from the mid-teens to the mid-twenties. The Company will recognize any revenue from these events based on the revenue recognition criteria set forth in ASC 605, Revenue Recognition. Based on those criteria, the Company considers these potential payments to be contingent revenue, and will recognize them as revenue in the period in which the applicable contingency is resolved.

Property and Equipment

Property and equipment assets are recorded at cost less accumulated depreciation. Depreciation expense on assets acquired under capital lease is recorded within depreciation expense. Depreciation is provided on a straight-line basis over the following periods:

| | |
|------------------------|----------------------------|
| Computer equipment | 3 years |
| Furniture and fixtures | 5 years |
| Leasehold improvements | Over the term of the lease |

Reporting Currency and Foreign Currency Translation

Effective August 21, 2008, the Company changed its functional currency from the Canadian dollar to the U.S. dollar. The Company's primary economic environment changed from Canada to the United States following the acquisition of Sonus (note 5). This resulted in significant changes in economic facts and circumstances that indicated that the functional currency had changed. The Company accounted for the change in functional currency prospectively.

The consolidated financial statements of the Company for the period of January 1, 2008 to August 20, 2008, which is based on the Canadian functional currency, has been translated into the U.S. reporting currency using the current rate method as required by ASC 830, "Foreign Currency Matters", or ASC 830, as follows: assets and liabilities using the rate of exchange prevailing at the balance sheet date; shareholders' equity using the applicable historic rate; and revenue and expenses using the monthly average rate of exchange. Translation adjustments have been included as part of the accumulated other comprehensive income.

Income Taxes

Income taxes are accounted for under the liability method. Deferred tax assets and liabilities are recognized for the differences between the carrying values of assets and liabilities and their respective income tax bases and for operating losses and tax credit carry forwards. A valuation allowance is provided for the portion of deferred tax assets that is more likely than not to be unrealized. Deferred tax assets and liabilities are measured using the enacted tax rates and laws.

Scientific Research and Development Tax Credits

The benefits of tax credits for scientific research and development expenditures are recognized in the year the qualifying expenditure is made provided there is reasonable assurance of recoverability. The tax credits recorded are based on management's estimates of amounts expected to be recovered and are subject to audit by taxation authorities. The refundable tax credit reduces the carrying cost of expenditures for research and development expenses to which it relates. The non-refundable tax credit reduces the tax provision, however no reduction to the tax provision has been recorded to date as the Company records a full valuation allowance. Following the completion of the Arrangement (note 5) all qualifying expenditures are eligible for non-refundable tax credits only.

Therapeutic Discovery Research Grants

The Internal Revenue Service's therapeutic discovery tax credit program, created under the Patient Protection and Affordable Care Act of 2010, provides tax credits or grants representing up to 50 percent of eligible qualified investments in therapeutic discovery projects during tax years 2009 and 2010. OncoGenex applied for and received funds under this program to support the company's custirsen, and OGX-427 development projects. The benefits of research grants under the Internal Revenue Service's therapeutic discovery tax credit program are recognized in the year the qualifying expenditure is approved provided there is reasonable assurance of recoverability. The tax grants recorded are based on management's estimates of amounts expected to be received and are subject to audit by taxation authorities. The research grants reduce the carrying cost of expenditures for research and development expenses to which it relates.

Research and Development Costs

Research and development costs are expensed as incurred, net of related refundable investment tax credits, with the exception of non-refundable advanced payments for goods or services to be used in future research and development, which are capitalized in accordance with ASC 730, "Research and Development" and included within Other Assets.

Clinical trial expenses are a component of research and development costs. These expenses include fees paid to contract research organizations and investigators and other service providers, which conduct certain product development activities on our behalf. The Company uses an accrual basis of accounting, based upon estimates of the amount of service completed. In the event payments differ from the amount of service completed, prepaid expense or accrued liabilities amounts are adjusted on the balance sheet. These expenses are based on estimates of the work performed under service agreements, milestones achieved, patient enrollment and experience with similar contracts. The Company monitors each of these factors to the extent possible and adjusts estimates accordingly.

Stock-Based Compensation

Effective January 1, 2006, the Company adopted the fair value recognition provisions of the ASC 718, "Stock Compensation", using the modified prospective method with respect to options granted to employees and directors. Under this transition method, compensation cost is recognized in the financial statements beginning with the effective date for all share-based payments granted after January 1, 2006 and for all awards granted prior to but not yet vested as of January 1, 2006. The expense is amortized on a straight-line basis over the graded vesting period.

Segment Information

The Company follows the requirements of ASC 280, "Segment Reporting." The Company has one operating segment, dedicated to the development and commercialization of new cancer therapies, with operations located in Canada and the United States.

Comprehensive Income (Loss)

Comprehensive income (loss) is comprised of net income (loss) and other comprehensive income (loss). Other comprehensive income (loss) consists of translation adjustments from the application of U.S. dollar reporting until August 21, 2008 and unrealized gains and losses on the Company's available-for-sale marketable securities. The Company has reported the components of comprehensive loss in the statement of shareholders' equity.

Loss per Common Share

Basic loss per common share is computed using the weighted average number of common shares outstanding during the period adjusted to reflect the equivalent OncoGenex Pharmaceuticals shares and equity structure. Prior to the completion of the Arrangement on August 21, 2008 the weighted average number of common shares represents OncoGenex Technologies only. Diluted loss per common share is computed in accordance with the treasury stock method which uses the weighted average number of common shares outstanding during the period. The effect of potentially issuable common shares from outstanding stock options, convertible preferred shares, and debentures is anti-dilutive for all periods presented.

Warrants

We account for warrants pursuant to the authoritative guidance on accounting for derivative financial instruments indexed to, and potentially settled in, a company's own stock, on the understanding that in compliance with applicable securities laws, the warrants require the issuance of registered securities upon exercise and do not sufficiently preclude an implied right to net cash settlement. We classify warrants on the consolidated balance sheet as a liability which is revalued at each balance sheet date subsequent to the initial issuance. Determining the appropriate fair-value model and calculating the fair value of registered warrants requires considerable judgment, including estimating stock price volatility and expected warrant life. The computation of expected volatility was based on the historical volatility of comparable companies from a representative peer group selected based on industry and market capitalization. A small change in the estimates used may have a relatively large change in the estimated valuation. We use the Black-Scholes pricing model to value the warrants. Changes in the fair market value of the warrants are reflected in the consolidated statement of loss as gain (loss) on revaluation of warrants.

Reclassifications

Certain prior period balances have been reclassified to conform to the current period presentation. The expenses associated with adjustments to sublease income assumptions relating to our Bothell facility (note 8) were reclassified during the third quarter of 2010 from research and development expenses to restructuring expenses. This reclassification on the statements of loss was made in all prior periods presented for comparability purposes. This reclassification had no effect on net loss, shareholders' equity, total assets and total liabilities, or the major categories of the cash flow statement.

Recently Adopted Accounting Policies

In January 2010, the FASB issued amended guidance on fair value measurements and disclosures. The new guidance requires additional disclosures regarding fair value measurements, amends disclosures about postretirement benefit plan assets, and provides clarification regarding the level of disaggregation of fair value disclosures by investment class. This guidance is effective for interim and annual reporting periods beginning after December 15, 2009, except for certain "Level 3" activity disclosure requirements that will be effective for reporting periods beginning after December 15, 2010. Accordingly, we adopted this amendment in the quarter ended March 31, 2010, except for the additional Level 3 requirements which will be adopted in 2011.

Recent Accounting Pronouncements

In April 2010, the FASB issued ASU No. 2010 - 17 - Revenue Recognition - Milestone Method (Topic 605): Milestone Method of Revenue Recognition. This standard provides guidance on defining a milestone and determining when it may be appropriate to apply the milestone method of revenue recognition for certain research and development transactions. Under this new standard, a company can recognize as revenue consideration that is contingent upon achievement of a milestone in the period in which it is achieved, only if the milestone meets all criteria to be considered substantive. This standard will be effective for us on a prospective basis for periods beginning after January 1, 2011. We are currently evaluating the potential impact of this standard, but do not expect it to have a significant impact on our financial position or results of operations.

3. FINANCIAL INSTRUMENTS AND RISK

For certain of the Company's financial instruments including cash and cash equivalents, amounts receivable, and accounts payable carrying values approximate fair value due to their short-term nature. The Company's cash equivalents and short-term investments are recorded at fair value.

Financial risk is the risk to the Company's results of operations that arises from fluctuations in interest rates and foreign exchange rates and the degree of volatility of these rates as well as credit risk associated with the financial stability of the issuers of the financial instruments. Foreign exchange rate risk arises as a portion of the Company's investments which finance operations and a portion of the Company's expenses are denominated in other than U.S. dollars.

The Company invests its excess cash in accordance with investment guidelines, which limit the credit exposure to any one financial institution or corporation other than securities issued by the U.S. government. The Company only invests in A (or equivalent) rated securities with maturities of one year or less. These securities generally mature within one year or less and in some cases are not collateralized. At December 31, 2010 the average days to maturity of the Company's portfolio of cash equivalents and marketable securities was 172 days. The Company does not use derivative instruments to hedge against any of these financial risks.

4. COLLABORATION AGREEMENT

On December 20, 2009, the Company, through its wholly-owned subsidiary, OncoGenex Technologies Inc., entered into a Collaboration Agreement with Teva for the development and global commercialization of custirsen (and related compounds), a pharmaceutical compound designed to inhibit the production of clusterin, a protein we believe associated with cancer treatment resistance, or the Licensed Product. Under the Collaboration Agreement, Teva paid the Company upfront payments in the aggregate amount of \$50 million and has agreed to pay up to \$370 million upon the achievement of developmental and commercial milestones and royalties at percentage rates ranging from the mid-teens to mid-twenties on net sales, depending on aggregate annual net sales of the Licensed Product.

On the same date, the Company and Teva also entered into a stock purchase agreement, or Stock Purchase Agreement, pursuant to which Teva made an additional \$10 million equity investment in the Company at a 20% premium to a thirty-day average closing price, resulting in 267,531 shares purchased at a price of \$37.38 per share. The 20% share premium is included as consideration for the custirsen license and has been included in collaboration revenue.

In connection with the Collaboration Agreement and pursuant to the terms of agreements between the Company and Isis relating to custirsen, the Company paid Isis Pharmaceuticals, Inc., or Isis, \$10 million which was recorded as research and development expense in 2009. The Company also paid approximately \$333,333 to the University of British Columbia, or UBC, pursuant to the terms of their license agreement relating to custirsen, which has been recorded as research and development expense in 2009. Pursuant to the terms of the third-party agreements, the Company anticipates that it would be required to pay third-parties 31% of any milestone payments that are not based on a percentage of net sales of the Licensed Product. Pursuant to the terms of third-party agreements, the Company anticipates it will pay royalties to third-parties of 4.88% to 8.00% of net sales, unless the Company's royalties are adjusted for competition from generic compounds, in which case royalties to third-parties will also be subject to adjustment on a country-by-country basis. Certain third-party royalties are tiered based on the royalty rate received by the Company. Minimum royalty rates payable by the Company assume certain third-party royalties are not paid at the time that the Licensed Product is marketed due to the expiration of patents held by such third-parties. Maximum royalty rates assume all third-party royalty rates currently in effect continue in effect at the time the Licensed Product is marketed.

Teva will receive the exclusive worldwide right and license to develop and commercialize products containing custirsen and related compounds. The Company has an option to co-promote any Licensed Product in the United States and Canada.

Teva is responsible for all costs relating to product commercialization including costs incurred in relation to the Company's co-promotion option, except for start-up costs in advance of commercialization.

Teva and the Company have developed a Clinical Development Plan under which three phase 3 clinical trials will be initiated:

- A phase 3 clinical trial, referred to as the SATURN trial, to evaluate a durable pain palliation benefit for custirsen in combination with docetaxel retreatment as second-line chemotherapy in approximately 300 patients with CRPC, which was initiated in the second quarter of 2010.
- A phase 3 clinical trial, referred to as the SYNERGY trial, to be conducted in approximately 125 cancer centers to evaluate a survival benefit for custirsen in combination with first-line docetaxel treatment in approximately 800 patients with CRPC, which was initiated in the third quarter of 2010.
- A phase 3 clinical trial to evaluate a survival benefit for custirsen in combination with first-line chemotherapy in patients with NSCLC, which is expected to be initiated in 2011 following successful manufacturing of additional custirsen drug product and completion of drug-drug interaction DDI studies. The trial is expected to enroll approximately 950 patients. The study protocol will include two futility assessments and one interim analysis for efficacy. The first-line chemotherapy regimen has been selected as carboplatin and paclitaxel.

Teva will be responsible for conducting any other studies and development work necessary to obtain required regulatory approvals. The Company may assume some of these activities if assigned by the Joint Steering Committee. Teva will be responsible for all such costs. The Joint Steering Committee will oversee the development and regulatory approval of any Licensed Product. The Company may terminate its participation in the Joint Steering Committee at any time.

Funding responsibilities for the Clinical Development Plan will be allocated as follows:

- the Company is required to spend \$30 million in direct and indirect development costs, and
- Teva will fund all other expenses under the Clinical Development Plan.

The Collaboration Agreement will remain in effect, on a country-by-country basis, until the expiration of the obligation of Teva to pay royalties on sales of the Licensed Product in such country (or earlier termination under its terms). Commencing after the completion of all three phase 3 clinical trials set forth in the Clinical Development Plan, or upon early termination due to a material adverse change in the Company's patent rights related to custirsen or safety issues or "futility" as defined in the Collaboration Agreement, Teva may terminate the Collaboration Agreement in its sole discretion upon three months' notice if notice is given prior to regulatory approval of a Licensed Product and upon six months' notice if notice is given after such regulatory approval. If Teva terminates the Collaboration for any reasons other than an adverse change in custirsen patent rights, safety issues or "futility" determination as previously described, it will remain responsible for paying for any remaining costs of all three phase 3 clinical trials, except for Company Development Expenses. Either party may terminate the Collaboration Agreement for an uncured material breach by the other party or upon the bankruptcy of either party. If the Collaboration Agreement is terminated by the Company for other than an uncured material breach by Teva, the Company will pay Teva a royalty on sales of Licensed Products. The percentage rates of such royalties (which are in the single digits) depend if termination occurs prior to the first regulatory approval in the United States or a primary European Market or after one of these approvals. These royalties would expire on a country-by-country basis on the earlier of ten years after the first commercial sale of a Licensed Product or certain thresholds related to generic competition.

In the event of a change of control of the Company, within 90 days of the change of control, Teva may terminate the joint steering committee in its sole discretion, terminate the co-promotion option in its sole discretion if not then exercised by the Company or if exercised but not yet executed by the Company, or terminate the co-promotion option if in its commercially reasonable opinion co-promotion with the Company's successor would be materially detrimental to Teva's interests.

Upon entering into the Collaboration Agreement, the Company assessed whether withholdings taxes were owed to the Israeli Tax Authority, or ITA, resulting from the Collaboration Agreement. It was the Company's position that

withholdings taxes were not owed, and a claim was issued to the ITA accordingly. For accounting purposes, management concluded that the withholdings tax claim was an uncertain tax position, and \$3 million, which represented the potential withholdings tax obligation, once received from Teva was initially recorded as Restricted Cash pending the Israeli Tax Authorities review of our claim and a corresponding liability of \$3 million was included in Accounts Payable and Accrued Liabilities. In June 2010, the Company received approval from the ITA for our request for a withholdings tax exemption on amounts received from Teva in relation to the Collaboration Agreement. Following receipt of this approval from the ITA the \$3 million was released to the Company from escrow. Subsequently, the Company released the \$3 million liability and recorded a \$3 million income tax recovery in the second quarter of 2010.

Revenue for the year ended December 31, 2010 was \$13.6 million, which consists of partial recognition of deferred collaboration revenue representing OncoGenex's contribution to the custirsen phase 3 development plan under our Collaboration Agreement with Teva and custirsen manufacturing costs incurred by OncoGenex in the year ended December 31, 2010 that are reimbursable from Teva on a cash basis. At December 31, 2010, a remaining balance of \$21.6 million of the up-front payment was recorded in deferred collaboration revenue, and \$0.6 million was reimbursable from Teva on a cash basis and included in Amounts Receivable. There were \$25.5 million in revenue recorded in the year ended December 31, 2009 as a result of the Collaboration Agreement with Teva.

Amendment to Isis and UBC License Agreements

To facilitate the execution and performance of the Collaboration Agreement, the Company and Isis agreed to amend the Isis License Agreement and the Company and UBC agreed to amend the UBC License Agreement, in each case, effective December 19 and December 20, 2009, respectively.

The amendment to the Isis License Agreement provides, among other things, that if the Company is the subject of a change of control with a third party, where the surviving company immediately following such change of control has the right to develop and sell the product, then (i) a milestone payment of \$20 million will be due and payable to Isis 21 days following the first commercial sale of the product in the United States; and (ii) unless such surviving entity had previously sublicensed the product and a royalty rate payable to Isis by the Company has been established, the applicable royalty rate payable to Isis will thereafter be the maximum amount payable under the Isis License Agreement. Any non-royalty milestone amounts previously paid will be credited toward the \$20 million milestone if not already paid. As a result of the \$10 million milestone payment payable to Isis in relation to the Collaboration Agreement, the remaining amount owing in the event of change of control discussed above is a maximum of \$10 million. As the Company has now licensed the product to Teva and established a royalty rate payable to Isis, no royalty rate adjustments would apply if Teva acquires the Company and is the surviving company. If the \$30 million in advanced reimbursement of development activities has not been spent by OncoGenex prior to the third anniversary of the Collaboration Agreement between OncoGenex and Teva, OncoGenex will pay Isis an amount equal to 30% of any un-spent portion less \$3.5 million.

5. REVERSE TAKEOVER

On August 21, 2008, Sonus Pharmaceuticals, Inc., or Sonus, completed a transaction, or the Arrangement, with OncoGenex Technologies Inc. whereby Sonus acquired all of the outstanding preferred shares, common shares and convertible debentures of OncoGenex Technologies Inc. Sonus changed its name to OncoGenex Pharmaceuticals, Inc. and was listed on the Nasdaq Capital Market under the ticker symbol OGXI. These consolidated financial statements account for the Arrangement between Sonus and OncoGenex Technologies Inc. as a reverse acquisition, whereby OncoGenex Technologies Inc. is deemed to be the acquiring entity from an accounting perspective.

The consolidated results of operations of the Company for years ended December 31, 2010 and December 31, 2009 include the results of operations of the combined company. The consolidated results of operations for the year ended December 31, 2008 include the results of operations of OncoGenex Technologies for the full year ended December 31, 2008 and the results of OncoGenex Pharmaceuticals, Inc. following the completion of the Arrangement on August 21, 2008.

On August 12, 2008, OncoGenex Technologies' shareholders approved the Arrangement described above and on August 19, 2008, Sonus shareholders approved the Arrangement, the one-for-eighteen reverse stock split of its common stock, and a reduction of Sonus' authorized capital from 75,000,000 common shares to 11,019,930

common shares. The reverse stock split occurred immediately prior to the closing of the Arrangement. Resulting fractional shares were eliminated. All information in the financial statements and the notes thereto relating to the number of shares, price per share, and per share amounts of common stock are presented on a post-split basis.

Under the purchase method of accounting, Sonus' outstanding shares of common stock were valued using the average closing price on Nasdaq of \$5.04 for the two days prior through to the two days subsequent to the announcement of the Arrangement on May 27, 2008. There were 2,059,898 shares of common stock outstanding, as adjusted for the reverse stock split, on August 20, 2008, immediately prior to closing. The fair value of the Sonus outstanding stock options were determined using the Black-Scholes option pricing model with the following assumptions: stock price of \$4.86, volatility of 57.67% to 89.48%, risk-free interest rate of 1.73% to 3.89%, and expected lives ranging from 0.05 to 4.79 years. The fair value of the Sonus outstanding warrants were determined using the Black-Scholes option pricing model with the following assumptions: stock price of \$4.86, volatility of 58.71%, risk-free interest rate 3.89%, and expected lives ranging from 0.99 to 1.08 years.

The final purchase price is summarized as follows (in thousands):

| | | |
|--|----|---------------|
| Sonus common stock | \$ | 10,385 |
| Fair value of options and warrants assumed | | 71 |
| Transaction costs of OncoGenex | | 807 |
| Total purchase price | \$ | <u>11,263</u> |

Under the purchase method of accounting, the total purchase price as shown in the table above is allocated to the Sonus net tangible and identifiable intangible assets acquired and liabilities assumed based on their fair values as of the date of the completion of the Arrangement. The final purchase price allocation is as follows (in thousands):

| | | |
|---|----|----------------|
| Cash | \$ | 5,464 |
| Marketable securities | | 14,808 |
| Accounts receivable | | 6 |
| Interest receivable | | 273 |
| Other current assets | | 175 |
| Furniture and equipment | | 1,186 |
| Other long term assets | | 497 |
| Intangible assets | | 280 |
| Accounts payable | | (35) |
| Accrued expenses excluding severance payable | | (652) |
| Severance payable to employees as part of restructuring | | (1,322) |
| Severance payable to senior executives | | (1,440) |
| Excess facility loss | | (2,083) |
| Negative goodwill | | <u>(5,894)</u> |
| Total purchase price | \$ | <u>11,263</u> |

In accordance with the then effective SFAS 141, "Business Combinations" any excess of fair value of acquired net assets over purchase price (negative goodwill) has been recognized as an extraordinary gain in the period the Arrangement was completed. The excess has been allocated as a pro rata reduction of the amounts that otherwise would have been assigned to the non-current acquired assets. Prior to allocation of the excess negative goodwill OncoGenex has reassessed whether all acquired assets and assumed liabilities have been identified and recognized and performed remeasurements to verify that the consideration paid, assets acquired, and liabilities assumed have been properly valued. The remaining excess has been recognized as an extraordinary gain. There was no other impact to other comprehensive income.

The final pro rata reduction of non-current and intangible assets acquired is as follows (in thousands):

| | | |
|--------------------------|----|----------------|
| Negative goodwill | \$ | (5,894) |
| Furniture and equipment | | 1,186 |
| Intangible assets | | <u>280</u> |
| Excess negative goodwill | \$ | <u>(4,428)</u> |

Pro Forma Results of Operations

The results of operations the combined Company are reflected in the consolidated financial statements from the date of the completion of the Arrangement on August 21, 2008. The following table presents pro forma results of operations and gives effect to the business combination transaction as if it were consummated at the beginning of the period presented. The pro forma results of operations are not necessarily indicative of what would have occurred had the business combination been completed at the beginning of the retrospective periods or of the results that may occur in the future.

**For the
year ended
December 31, 2008**

(in thousands except shareholder and per share amounts)

| | |
|--|-------------|
| Revenue | — |
| Net loss applicable to common shareholders | \$ (28,102) |
| Net loss per share - basic and diluted | \$ (15.36) |
| Weighted average shares | 1,829,276 |

6. FAIR VALUE MEASUREMENTS

With the adoption of ASC 820 "Fair Value Measurements and Disclosures", beginning January 1, 2008, assets and liabilities recorded at fair value in the balance sheets are categorized based upon the level of judgment associated with the inputs used to measure their fair value. For certain of the Company's financial instruments including cash and cash equivalents, amounts receivable, and accounts payable the carrying values approximate fair value due to their short-term nature.

ASC 820 specifies a hierarchy of valuation techniques based on whether the inputs to those valuation techniques are observable or unobservable. In accordance with ASC 820, these inputs are summarized in the three broad level listed below:

- Level 1 – Quoted prices in active markets for identical securities.
- Level 2 – Other significant observable inputs that are observable through corroboration with market data (including quoted prices in active markets for similar securities).
- Level 3 – Significant unobservable inputs that reflect management's best estimate of what market participants would use in pricing the asset or liability.

As quoted prices in active markets are not readily available for certain financial instruments, the Company obtains estimates for the fair value of financial instruments through independent pricing service providers.

In determining the appropriate levels, the Company performed a detailed analysis of the assets and liabilities that are subject to ASC 820.

The Company invests its excess cash in accordance with investment guidelines that limit the credit exposure to any one financial institution other than securities issued by the U.S. Government. Our securities are not collateralized and mature within one year.

A description of the valuation techniques applied to the Company's financial instruments measured at fair value on a recurring basis follows.

Financial Instruments

Cash

Significant amounts of cash are held on deposit with a large well established Canadian financial institution.

U.S. Government and Agency Securities

U.S. Government Securities U.S. government securities are valued using quoted market prices. Valuation adjustments are not applied. Accordingly, U.S. government securities are categorized in Level 1 of the fair value hierarchy.

U.S. Agency Securities U.S. agency securities are comprised of two main categories consisting of callable and non-callable agency issued debt securities. Non-callable agency issued debt securities are generally valued using quoted market prices. Callable agency issued debt securities are valued by benchmarking model-derived prices to quoted market prices and trade data for identical or comparable securities. Actively traded non-callable agency issued debt securities are categorized in Level 1 of the fair value hierarchy. Callable agency issued debt securities are categorized in Level 2 of the fair value hierarchy.

Corporate and Other Debt

Corporate Bonds and Commercial Paper The fair value of corporate bonds and commercial paper is estimated using recently executed transactions, market price quotations (where observable), bond spreads or credit default swap spreads adjusted for any basis difference between cash and derivative instruments. The spread data used are for the same maturity as the bond. If the spread data does not reference the issuer, then data that reference a comparable issuer are used. When observable price quotations are not available, fair value is determined based on cash flow models with yield curves, bond or single name credit default swap spreads and recovery rates based on collateral values as significant inputs. Corporate bonds and commercial paper are generally categorized in Level 2 of the fair value hierarchy; in instances where prices, spreads or any of the other aforementioned key inputs are unobservable, they are categorized in Level 3 of the hierarchy.

The following table presents information about our assets and liabilities that are measured at fair value on a recurring basis, and indicates the fair value hierarchy of the valuation techniques we utilized to determine such fair value:

| (in thousands) | Level 1 | Level 2 | Level 3 | 2010 |
|--------------------------------------|------------------|------------------|-------------|------------------|
| Assets | | | | |
| Cash | \$ 14,817 | \$ — | \$ — | \$ 14,817 |
| Money market securities | 3,403 | — | — | 3,403 |
| U.S. government securities | 2,700 | — | — | 2,700 |
| U.S. agency securities | 1,407 | — | — | 1,407 |
| Corporate bonds and commercial paper | — | 63,282 | — | 63,282 |
| | \$ 22,327 | \$ 63,282 | \$ — | \$ 85,609 |
| Liabilities | | | | |
| Warrants | — | — | 15,269 | 15,269 |

| (in thousands) | Level 1 | Level 2 | Level 3 | 2009 |
|--|------------------|-----------------|-------------|------------------|
| Cash and Marketable Securities | | | | |
| Cash and cash equivalents, restated cash | \$ 47,590 | \$ — | \$ — | \$ 47,590 |
| Money market securities | 5,941 | — | — | 5,941 |
| U.S. government securities | 6,033 | — | — | 6,033 |
| U.S. agency securities | 401 | 1,103 | — | 1,504 |
| Corporate bonds and commercial paper | — | 3,500 | — | 3,500 |
| | \$ 59,965 | \$ 4,603 | \$ — | \$ 64,568 |

Marketable securities consist of the following:

| | Amortized Cost | Gross Unrealized Gain | Gross Unrealized Loss | Estimated Fair Value |
|--------------------------------------|-------------------|-----------------------------|-----------------------------|-------------------------|
| (in thousands) | | | | |
| 2010 | | | | |
| Cash | \$ 14,817 | \$ — | \$ — | \$ 14,817 |
| Money market securities | 2,901 | — | — | 2,901 |
| Corporate bonds and commercial paper | 5,815 | — | — | 5,815 |
| Cash and cash equivalents | \$ 23,533 | \$ — | \$ — | \$ 23,533 |
| Money market securities | \$ 502 | \$ — | \$ — | \$ 502 |
| Restricted cash | \$ 502 | \$ — | \$ — | \$ 502 |
| U.S. government securities | \$ 2,700 | \$ — | \$ — | \$ 2,700 |
| U.S. agency securities | 1,407 | — | — | 1,407 |
| Corporate bonds and commercial paper | 57,501 | — | (35) | 57,466 |
| Short-term investments | \$ 61,608 | \$ 1 | \$ (35) | \$ 61,574 |
| 2009 | | | | |
| Cash | \$ 47,590 | \$ — | \$ — | \$ 47,590 |
| Money market securities | 5,941 | — | — | 5,941 |
| U.S. government securities | 5,021 | 1 | (2) | 5,020 |
| Corporate bonds and commercial paper | 3,500 | — | — | 3,500 |
| Cash and cash equivalents | \$ 62,053 | \$ — | \$ (2) | \$ 62,051 |
| U.S. government securities | \$ 1,012 | \$ — | \$ — | \$ 1,012 |
| U.S. agency securities | 1,504 | 1 | — | 1,505 |
| Short-term investments | \$ 2,516 | \$ 1 | \$ — | \$ 2,517 |

All securities included in cash, and cash equivalents have maturities of 90 days or less at the time of purchase. All securities included in short-term investments have maturities of within one year of the balance sheet date.

There were no significant realized or unrealized gains or losses on the sales of marketable securities in the years ended December 31, 2010 or December 31, 2009 and no significant unrealized gains or losses are included in accumulated other comprehensive income as at December 31, 2010 or December 31, 2009. Realized gains and losses are transferred out of accumulated other comprehensive income into interest income using the specific identification method.

All of the marketable securities held as of December 31, 2010 and December 31, 2009 had maturities of one year or less. The Company only invests in A (or equivalent) rated securities with maturities of one year or less. The Company does not believe that there are any other than temporary impairments related to its investment in marketable securities at December 31, 2010, given the quality of the investment portfolio, its short-term nature, and subsequent proceeds collected on sale of securities that reached maturity.

As of December 31, 2010, the Company recorded a \$15,269,000 warrant liability. The Company reassesses the fair value of the common stock warrants at each reporting date utilizing a Black-Scholes pricing model. Inputs used in the pricing model include estimates of stock price volatility, expected warrant life and risk-free interest rate. The computation of expected volatility was based on the historical volatility of comparable companies from a representative peer group selected based on industry and market capitalization.

The following table presents the changes in fair value of the Company's total Level 3 financial liabilities for the year ended December 31, 2010:

| (In thousands) | Liability at December 31, 2009 | Opening Liability at October 22, 2010 | Gain (loss) on warrants | Remaining Liability at December 31, 2010 |
|-------------------|--------------------------------------|--|----------------------------|---|
| Warrant liability | — | \$ 15,365 | \$ 96 | \$ 15,269 |

7. PROPERTY AND EQUIPMENT

| (In thousands) | <u>Cost</u> | <u>Accumulated Depreciation</u> | <u>Net Book Value</u> |
|-------------------------------|-------------|-------------------------------------|---------------------------|
| | \$ | \$ | \$ |
| December 31, 2010 | | | |
| Computer equipment | 332 | 284 | 48 |
| Furniture and fixtures | 113 | 102 | 11 |
| Leasehold improvements | 54 | 42 | 12 |
| Equipment under capital lease | 66 | 50 | 16 |
| | 565 | 478 | 87 |
| December 31, 2009 | | | |
| Computer equipment | 276 | 271 | 5 |
| Furniture and fixtures | 113 | 90 | 23 |
| Leasehold improvements | 42 | 42 | — |
| Equipment under capital lease | 66 | 22 | 44 |
| | 497 | 425 | 72 |

8. RESTRUCTURING ACTIVITIES

Prior to the Arrangement, Sonus entered into a non-cancellable lease arrangement for office space located in Bothell, Washington, which was considered to be in excess of the Company's current requirements. The Company is currently in the process of evaluating opportunities to exit or sublet portions of the leased space and recorded an initial restructuring charge of \$2,084,000 on August 21, 2008 as part of the purchase price allocation. The liability is computed as the present value of the difference between the remaining lease payments due less the estimate of net

sublease income and expenses and has been accounted for in accordance with the then effective EITF No. 95-3, "Recognition of Liabilities in Connection with a Purchase Business Combination". This represents the Company's best estimate of the liability. Subsequent changes in the liability due to accretion, or changes in estimates of sublease assumptions are recognized as adjustments to restructuring charges in future periods.

In June 2009, the Company revised its sublease income assumptions used to estimate the excess lease facility liability. These assumptions were subsequently revised again in December 2009 and September 2010. These changes in estimate resulted in increases in the value of the excess lease liability of \$494,000, \$3,457,000, and \$4,038,000 in expense recorded in June 2009, December 2009, and September 2010, respectively, to reflect these changes in estimate. In the year ended December 31, 2010, with respect to excess facilities, \$1,216,000 was amortized into income through research and development expense, resulting in a remaining liability of \$7,467,000 at December 31, 2010.

| (In thousands) | Remaining Liability at December 31, 2009 | Amortization of excess lease facility | Additional Liability Recorded | Remaining Liability at December 31, 2010 |
|--|--|---|-------------------------------------|---|
| Current portion of excess lease facility | \$ 1,297 | \$ 140 | \$ 146 | \$ 1,303 |
| Long-term portion of excess lease facility | \$ 3,348 | \$ 1,076 | \$ 3,892 | \$ 6,164 |
| Total | \$ 4,645 | \$ 1,216 | \$ 4,038 | \$ 7,467 |

9. OTHER ASSETS

Other assets include deposits paid for office space in accordance with the terms of the operating lease agreements.

10. INCOME TAX

[a] The reconciliation of income tax attributable to operations computed at the statutory tax rate to income tax expense is as follows. OncoGenex Technologies, a Canadian corporation, which is subject to combined Canadian federal and provincial statutory tax rates for December 31, 2010, 2009, and 2008 of 28.5%, 30%, and 31%, respectively. Following the reverse takeover by OncoGenex Technologies of Sonus Pharmaceuticals, Inc. (which subsequently changed its name to OncoGenex Pharmaceuticals, Inc.) in 2008, OncoGenex Technologies became a wholly owned subsidiary of the Company, which is a Delaware incorporated company subject to US Federal Statutory rates of 34% for all three years presented.

For the purposes of estimating the tax rate in effect at the time that deferred tax assets and liabilities are expected to reverse, management uses the furthest out available future tax rate in the applicable jurisdictions. For the years ended December 31, 2010, 2009, and 2008 the future Canadian enacted rates we used were 25%, 25%, and 26%, respectively, while for the US the future enacted rate we used was 34% for all three periods presented.

| (In thousands) | 2010 | 2009 | 2008 |
|--|---------|---------|---------|
| Income taxes at statutory rates (at a rate of 34% for all periods presented) | (5,298) | (838) | (3,635) |
| Expenses not deducted for tax purposes ⁽¹⁾ | 425 | 151 | 3,991 |
| Effect of tax rate changes on deferred tax assets and liabilities | — | — | — |
| Effect of foreign tax (Canadian) rate changes on deferred tax assets and liabilities | 614 | (130) | 974 |
| Reduction in benefit of operating losses | 1,939 | 542 | 339 |
| Reduction in the benefit of other tax attributes | 394 | 367 | — |
| Impact of withholding tax | (3,000) | 3,000 | — |
| Foreign exchange effect on valuation allowance | (534) | (1,437) | 2,244 |
| Investment tax credits | (252) | (180) | (180) |

| | | | |
|--|---------|-------|---------|
| Research and development tax credits | — | (32) | — |
| Change in valuation allowance | 2,620 | 1,628 | 1,643 |
| Reversal of tax effect of income of Sonus prior to the Arrangement (2) | — | — | (5,310) |
| Canadian Part VI.1 tax on redeemable convertible preferred shares (3) | — | — | (2,125) |
| Part VI.1 tax deduction | — | — | — |
| Book to tax return adjustments | 92 | (60) | — |
| Other | — | — | — |
| Income tax expense | (3,000) | 3,011 | (2,059) |

(1) The 2008 balance was primarily attributable to amounts recognized in connection with the Arrangement, including facility-related charges and the conversion of redeemable convertible preferred shares into equity following the Arrangement.

(2) This line item represents the adjustment required to the 2008 tax provision for amounts associated with Sonus during the portion of the year prior to the Arrangement. The amount of \$5,310 represents the pre-arrangement loss of Sonus of \$15,617 multiplied by the US Federal Statutory tax rate of 34%. Offsetting the \$5,310 was \$5,310 included in line item "Change in valuation allowance".

(3) Canadian Part VI.1 tax on redeemable convertible preferred shares was accrued during each year such shares were outstanding. This tax would have been payable upon retraction of redeemable convertible preferred shares. These shares would have been retractable at any time after August 10, 2010. In 2008, subsequent to the completion of the Arrangement, all convertible redeemable preferred shares were converted into equity and as a result the associated aggregate tax liability was reversed.

[b] At December 31, 2010, the Company has investment tax credits of \$741,000 (2009—\$509,000) available to reduce future Canadian income taxes otherwise payable. The Company also has non-capital loss carry forwards of \$28,280,000 (2009—\$21,057,000) available to offset future taxable income in Canada and federal net operating loss carryforwards of \$126,911,000 (2009- 127,424,000) to offset future taxable income in the United States.

The initial public offering of common stock by the Company in 1995 caused an ownership change pursuant to applicable regulations in effect under the Internal Revenue Code of 1986. Therefore, the Company's use of losses incurred through the date of ownership change will be limited during the carryforward period and may result in the expiration of net operating loss carryforwards in the United States before utilization.

The investment tax credits and non-capital losses and net operating losses for income tax purposes expire as follows (in thousands):

| | Investment Tax Credits | Net Operating Losses | Non-capital Losses |
|------|---------------------------|-------------------------|-----------------------|
| | \$ | \$ | |
| 2011 | — | 47 | — |
| 2012 | — | 44 | — |
| 2013 | — | 10,795 | — |
| 2014 | — | — | 1,707 |
| 2015 | — | — | — |
| 2016 | — | — | — |
| 2017 | — | — | — |
| 2018 | 9 | — | — |
| 2019 | 68 | 32 | — |
| 2020 | (12) | 2,745 | — |
| 2021 | 2 | 400 | — |
| 2022 | 2 | 11,766 | — |
| 2023 | 1 | 10,785 | — |
| 2024 | — | 16,814 | — |
| 2025 | 244 | 2,062 | 7,407 |
| 2026 | 71 | 27,157 | 4,982 |
| 2027 | — | 22,225 | 5,650 |
| 2028 | 28 | 12,648 | 2,410 |

| | | | |
|------|------------|----------------|---------------|
| 2029 | 123 | 4,357 | — |
| 2030 | 205 | 5,034 | 6,124 |
| | <u>741</u> | <u>126,911</u> | <u>28,280</u> |

In addition, the Company has unclaimed tax deductions of approximately \$9,883,000 related to scientific research and experimental development expenditures available to carry forward indefinitely to reduce Canadian taxable income of future years. The Company also has research and development tax credits of \$1,543,000 available to reduce future taxes payable in the United States. The research and development tax credits expire between 2011 and 2028.

[c] Significant components of the Company's deferred tax assets as of December 31 are shown below (in thousands):

| | 2010 | 2009 |
|---|---------------|---------------|
| | \$ | \$ |
| Deferred tax assets: | | |
| Tax basis in excess of book value of assets | 1,187 | 1,202 |
| Non-capital loss carryforwards | 50,220 | 48,588 |
| Research and development deductions and credits | 4,679 | 4,210 |
| Share issue costs | 83 | 119 |
| Stock options | 1,475 | 1,689 |
| Capital loss carryforward | 51 | 51 |
| Restructuring liability | 2,717 | 1,697 |
| Foreign tax credit | — | 3,273 |
| Other | 27 | 27 |
| Total deferred tax assets | <u>60,439</u> | <u>60,856</u> |
| Valuation allowance | (60,439) | (60,856) |

The potential income tax benefits relating to these deferred tax assets have not been recognized in the accounts as their realization did not meet the requirements of "more likely than not" under the liability method of tax allocation. Accordingly, a valuation allowance has been recorded and no deferred tax assets have been recognized as at December 31, 2010 and 2009.

[d] Under ASC 740, the benefit of an uncertain tax position that is more likely than not of being sustained upon audit by the relevant taxing authority must be recognized at the largest amount that is more likely than not to be sustained. No portion of the benefit of an uncertain tax position may be recognized if the position has less than a 50% likelihood of being sustained.

A reconciliation of the unrecognized tax benefits of uncertain tax positions for the year ended December 31, 2010 is as follows:

| | |
|---|-------------|
| (in thousands) | \$ |
| Balance as of December 31, 2008 | 1,956 |
| Additions based on tax positions related to the current year | 143 |
| Deductions based on tax positions related to the current year | <u>(90)</u> |
| Balance as of December 31, 2009 | 2,009 |
| Additions based on tax positions related to the current year | 48 |
| Deductions based on tax positions related to the current year | <u>(50)</u> |
| Balance as of December 31, 2010 | 2,007 |

As of December 31, 2010, unrecognized benefits of approximately \$2,007,000, if recognized, would affect the Company's effective tax rate, and would reduce the Company's deferred tax assets. See note 4 for discussion of the

Company's assessment of potential withholdings taxes owed to the ITA resulting from the Collaboration Agreement.

The Company's accounting policy is to treat interest and penalties relating to unrecognized tax benefits as a component of income taxes. As of December 31, 2010 and December 31, 2009 the Company had no accrued interest and penalties related to income taxes.

The Company is subject to taxes in Canada and the U.S. until the applicable statute of limitations expires. Tax audits by their very nature are often complex and can require several years to complete.

| Tax Jurisdiction | Years open to examination |
|-------------------------|----------------------------------|
| Canada | 2004 to 2010 |
| US | 2004 to 2010 |

11. COMMON STOCK

[a] Authorized

25,000,000 authorized common voting share, par value of \$0.001, and 5,000,000 preferred shares, par value of \$0.001.

[b] Issued and outstanding shares

July 2009 Financing

On July 24, 2009, the Company completed a registered direct offering with certain institutional investors covering the sale of 475,000 shares of common stock at a price of \$20 per share under a shelf registration statement on Form S-3 (No. 333-160251) that was declared effective by the Securities and Exchange Commission, or SEC, on July 17, 2009. The transaction provided net proceeds of approximately \$9.3 million after deducting costs associated with the offering.

2009 Teva Share Purchase Agreement

On December 20, 2009 the Company and Teva also entered into a stock purchase agreement (the "Stock Purchase Agreement"). Pursuant to the terms of the Stock Purchase Agreement, Teva made a \$10 million equity investment in the Company through its purchase of 267,531 shares of the common shares at a price of \$37.38 per Share, which was a 20% premium to a thirty-day average closing price prior to the announcement. The transaction provided net proceeds of approximately \$9,970,000 after deducting costs associated with the offering. The 20% share premium has been allocated to revenue, resulting in a net amount of \$7,903,000 included in equity.

October 2010 Public Offering

On October 22, 2010, the Company completed a public offering of 3,174,602 units, with each unit consisting of one share of the Company's common stock and one-half (1/2) of one warrant, at a purchase price of \$15.75 per unit for an aggregate offering amount of \$50 million.

Each whole warrant is exercisable at any time on or after the date of issuance until the fifth anniversary of the date of issuance at an exercise price of \$20, and includes a cashless exercise feature. The Company accounts for warrants issued in October 2010 under the authoritative guidance on accounting for derivative financial instruments indexed to, and potentially settled in, a company's own stock, on the understanding that in compliance with applicable securities laws, the registered warrants require the issuance of registered securities upon exercise and do not sufficiently preclude an implied right to net cash settlement. The Company classifies warrants on the accompanying consolidated balance sheet as a liability which is revalued at each balance sheet date subsequent to the initial issuance. The Company uses the Black-Scholes pricing model to value the warrants. Determining the appropriate fair-value model and calculating the fair value of registered warrants requires considerable judgment. On the date of

issuance, the Black-Scholes value of the warrant was based on an assumed risk-free rate of 1.17%, volatility of 75% and an expected life of 5 years. A small change in the estimates used may have a relatively large change in the estimated valuation. Changes in the fair market value of the warrants are reflected in the consolidated statement of loss as gain (loss) on warrant.

The net proceeds to OncoGenex, after underwriting discounts and commissions and other offering expenses, from the sale of the units were \$46.7 million, of which \$32.3 million was allocated to common shares and included in Additional paid-in capital, \$15.4 million was allocated to Warrant liability. \$1 million of underwriting discounts and commissions and other offering expenses allocated to the value of Warrants was expensed in warrant issuance expense on our consolidated statement of loss.

At December 31, 2010, there were exercisable warrants outstanding to purchase 1,587,301 shares of common stock at an exercise price of \$20 per share, expiring in October 2015. No warrants were exercised during the years ended December 31, 2009 or December 31, 2010.

Stock Option Exercises

During the year ended December 31, 2010, the Company issued 194,956 common shares upon exercise of stock options (year ended December 31, 2009 – 37,388, year ended December 31, 2008 – 34,601). The Company issues new shares to satisfy stock option exercises.

[c] Stock options

As at December 31, 2010 the Company has reserved, pursuant to various plans, 1,035,987 common shares for issuance upon exercise of stock options by employees, directors, officers and consultants of the Company, of which 744,913 are reserved for options currently outstanding, and 291,074 are available for future option grants (December 31, 2009 - 53,684).

2010 Performance Incentive Plan

At the 2010 Annual Meeting of Stockholders of the Company held on June 8, 2010, stockholders of the Company approved the 2010 Performance Incentive Plan. Following the approval of the 2010 Performance Incentive Plan, we are no longer able to issue additional equity awards under any of our other equity compensation plans. Under the plan, the Company may grant options to purchase common shares in the Company to employees, directors, officers and consultants of the Company. The exercise price of the options is determined by the Board but generally will be at least equal to the fair value of the common shares at the grant date. The options vest in accordance with terms as determined by the Board, typically over three to four years for options issued to employees, and over one to three years for members of the Board of Directors. The expiry date for each option is set by the Board with a maximum expiry date of ten years from the date of grant.

Options remain outstanding under a number of share option plans that had been approved by shareholders prior to the approval of the 2010 Performance Incentive Plan: (a) the Incentive Stock Option, Nonqualified Stock Option and Restricted Stock Purchase Plan – 1991 (1991 Plan), (b) the 1999 Nonqualified Stock Incentive Plan (1999 Plan), (c) the 2000 Stock Incentive Plan (2000 Plan), (d) the 2007 Performance Incentive Plan (2007 Plan), and (e) the OncoGenex Technologies Inc. Stock Option Plan (OncoGenex Technologies Plan).

ASC 718 Compensation – Stock Compensation

The Company recognizes expense related to the fair value of our stock-based compensation awards using the provisions of ASC 718. The Company uses the Black-Scholes option pricing model as the most appropriate fair value method for its awards and recognizes compensation expense for stock options on a straight-line basis over the requisite service period. In valuing its options using the Black-Scholes option pricing model, the Company makes assumptions about risk-free interest rates, dividend yields, volatility and weighted average expected lives, including estimated forfeiture rates of the options.

The expected life was calculated based on the simplified method as permitted by the SEC's Staff Accounting Bulletin 110, *Share-Based Payment*. The Company considers the use of the simplified method appropriate because

of the lack of sufficient historical exercise data following the reverse takeover of Sonus. The computation of expected volatility was based on the historical volatility of comparable companies from a representative peer group selected based on industry and market capitalization. The risk-free interest rate was based on a U.S. Treasury instrument whose term is consistent with the expected life of the stock options. In addition to the assumptions above, as required under ASC 718, management made an estimate of expected forfeitures and is recognizing compensation costs only for those equity awards expected to vest. Forfeiture rates are estimated using historical actual forfeiture rate that resulted over the estimated life of the option grant for options granted as of the beginning of the forfeiture measurement period. These rates are adjusted on a quarterly basis and any change in compensation expense is recognized in the period of the change. The Company has never paid or declared dividends on our common stock and do not expect to pay cash dividends in the foreseeable future.

The estimated fair value of stock options granted in the respective periods was determined using the Black-Scholes option pricing model using the following weighted average assumptions:

| | Years ended | | |
|--------------------------|---------------------|-------------|-------------|
| | December 31, | | |
| | 2010 | 2009 | 2008 |
| Risk-free interest rates | 2.73% | 2.85% | 1.71% |
| Expected dividend yield | 0% | 0% | 0% |
| Expected life | 6.8 years | 6.1 years | 5.2 years |
| Expected volatility | 75% | 74% | 77% |

The weighted average fair value of stock options granted during the year ended December 31, 2010 was \$11.08 per share (December 31, 2009 - \$11.97 and December 31, 2008 - \$1.86).

Total stock-based compensation expense included in the Company's statements of loss for the years ended December 31, 2010, 2009 and 2008 was \$642,000, \$380,000 and \$174,000 respectively.

The results for the periods set forth below included share-based compensation expense in the following expense categories of the consolidated statements of loss:

| | Years ended | | |
|--------------------------------|---------------------|-------------|-------------|
| | December 31, | | |
| | 2010 | 2009 | 2008 |
| (in thousands) | | | |
| Research and development | \$ 331 | \$ 88 | \$ 65 |
| General and administrative | 311 | 292 | 109 |
| Total share-based compensation | <u>642</u> | <u>380</u> | <u>174</u> |

Options vest in accordance with terms as determined by the Board, typically over three or four years for employee grants and over one or three years for Board of Director option grants. The expiry date for each option is set by the Board with, which is typically seven to ten years. The exercise price of the options is determined by the Board but is at least equal to the fair value of the share at the grant date.

Stock option transactions and the number of stock options outstanding are summarized below:

| | Number of Optioned Common Shares | Weighted Average Exercise Price |
|-----------------------------------|--|--|
| | # | \$ |
| Balance, December 31, 2007 | 324,231 | 4.61 |
| Additions from Sonus Option Plans | 98,249 | 27.89 |
| Option grants | 397,150 | 2.93 |
| Option exercises | (34,601) | 3.57 |
| Option cancellations | (61,886) | 28.08 |
| Balance, December 31, 2008 | 723,143 | 4.88 |
| Option grants | 130,400 | 17.52 |
| Option cancellations | (8,154) | 7.04 |
| Option exercises | (37,388) | 3.79 |
| Option forfeited | (5,130) | 6.42 |
| Balance, December 31, 2009 | 802,871 | 6.95 |
| Option grants | 170,872 | 15.87 |
| Option cancellations | (7,311) | 104.91 |
| Option exercises | (194,956) | 4.22 |
| Option forfeited | (26,563) | 7.35 |
| Balance, December 31, 2010 | 744,913 | 8.73 |

The following table summarizes information about stock options outstanding at December 31, 2010:

| Exercise Prices | Number of Options Outstanding | Weighted- Average Remaining Contractual Life (in years) | Number of Options Exercisable | Exercise Price | Weighted- Average Remaining Contractual Life (in years) |
|-----------------|-------------------------------------|--|-------------------------------------|-------------------|--|
| 2.69 | 34,000 | 4.8 | 34,000 | 2.69 | 4.8 |
| 3.00 | 268,150 | 5.0 | 132,950 | 3.00 | 5.0 |
| 3.89 | 23,200 | 0.2 | 23,200 | 3.89 | 0.2 |
| 4.11 | 131,488 | 1.7 | 131,488 | 4.11 | 1.7 |
| 6.66 | 4,859 | 7.2 | 4,859 | 6.66 | 7.2 |
| 7.25 | 16,520 | 5.4 | 16,520 | 7.25 | 5.4 |
| 12.03 | 8,000 | 9.6 | 833 | 12.03 | 9.6 |
| 14.01 | 2,500 | 9.5 | 312 | 14.01 | 9.5 |
| 14.20 | 13,976 | 9.4 | — | 14.2 | 9.4 |
| 15.11 | 5,500 | 9.6 | — | 15.11 | 9.6 |
| 15.97 | 131,450 | 10 | — | 15.97 | 10 |
| 18.94 | 12,169 | 3.5 | 12,169 | 18.94 | 3.5 |
| 21.05 | 9,446 | 6.2 | 2,361 | 21.05 | 6.2 |
| 22.28 | 83,100 | 8.8 | 20,775 | 22.28 | 8.8 |
| 68.25 | 555 | 0.8 | 555 | 68.25 | 0.8 |
| 8.73 | 744,913 | 5.75 | 380,022 | 5.44 | 3.76 |

As at December 31, 2010 and December 31, 2009 the total unrecognized compensation expense related to stock options granted is \$2,962,000 and \$1,910,000 respectively, which is expected to be recognized into expense over a period of approximately 4 years.

The estimated grant date fair value of stock options vested during the years ended December 31, 2010, 2009, and 2008 was \$736,000, \$399,000 and \$160,000 respectively.

The aggregate intrinsic value of options exercised was calculated as the difference between the exercise price of the stock options and the fair value of the underlying common stock as of the date of exercise. The aggregate intrinsic value of options exercised for the years ended December 31, 2010, 2009, and 2008 was \$2,355,000, \$697,000, and \$39,000, respectively. At December 31, 2010, the aggregate intrinsic value of the outstanding options was \$5,998,000 and the aggregate intrinsic value of the exercisable options was \$4,312,000.

[d] Stock Warrants

At December 31, 2010, there were exercisable warrants outstanding to purchase 1,587,301 shares of common stock at an exercise price of \$20 per share, expiring in October 2015. No warrants were exercised during the years ended December 31, 2009 or December 31, 2010.

The estimated fair value of warrants issued is reassessed at each balance sheet date using the Black-Scholes option pricing model. The following assumptions were used to value the warrants on the following balance sheet dates:

| | Years ended | | |
|--------------------------|---------------------|-------------|-------------|
| | December 31, | | |
| | 2010 | 2009 | 2008 |
| Risk-free interest rates | 2.01% | — | — |
| Expected dividend yield | 0% | — | — |
| Expected life | 4.8 years | — | — |
| Expected volatility | 75% | — | — |

[e] Sonus Employee Stock Purchase Plan

Prior to January 2009, the Company had an employee stock purchase plan whereby employees were permitted to contribute up to 15% of their compensation to purchase shares of the Company's common stock at 85% of the stock's share price at the lower of the beginning or end of each six-month offering period. 222 shares purchased under the plan in 2008. The plan was terminated in January 2009 and no shares were purchased under the plan in 2009.

[f] Shareholder Rights Plan

The Company has a Shareholder Rights Plan which was adopted in July 1996 and subsequently amended in July 2002, October 2005 and August 2006 (the "Rights Plan"). Under the Plan the Company's Board of Directors declared a dividend of one Preferred Stock Purchase Right (Right) for each outstanding common share of the Company. Subject to the Rights Plan, each Right entitles the registered holder to purchase from the Company one one-hundredth of a share of Series A Junior Participating Preferred Stock at a exercise price of \$140, subject to adjustment. These Rights provide the holders with the right to purchase, in the event a person or group acquires 15% or more of the Company's common stock, additional shares of the Company's common stock having a market value equal to two times the exercise price of the Right. Pursuant to the Rights Plan, the one-for-eighteen reverse stock split caused a proportionate adjustment of the number of Rights associated with each share of common stock. Currently, eighteen (18) Rights are associated with each share of common stock.

[g] 401(k) Plan

The Company maintains a 401(k) plan in which it provided a specified percentage match on employee contributions. Following the Arrangement, the Board of Directors of OncoGenex amended and restated the 401(k) plan whereas securities of the Company are no longer offered as an investment option. This amendment prohibits the inclusion of OncoGenex shares in the 401(k) plan, as well as any match of Company shares to employee contributions. No shares of the Company were issued subsequent to the Arrangement, and as such no related expense was incurred.

[h] Loss per common share

Weighted average common shares outstanding for prior periods have been restated to reflect the change in capital structure resulting from the transaction with Sonus. The following table presents the computation of basic and diluted net loss per share:

| (in thousands except shares and per share amounts) | Years ended December 31, | | |
|---|--------------------------|-----------|-----------|
| | 2010 | 2009 | 2008 |
| Numerator | | | |
| Loss attributable to common shareholders as reported | \$ 12,584 | \$ 5,476 | \$ 6,177 |
| Denominator | | | |
| Weighted average number of common shares outstanding | 7,030,903 | 5,766,850 | 1,829,276 |
| Basic and diluted loss per common share | \$ 1.79 | \$ 0.95 | \$ 3.38 |
| Earnings per share associated with \$4,428 extraordinary gain | \$ — | \$ — | 2.42 |
| Basic and diluted loss per common share excluding extraordinary gain | \$ 1.79 | \$ 0.95 | \$ 5.80 |

As of December 31, 2010, 2009 and 2008 a total of 2,332,214, 986,256 and 906,528 options and warrants, respectively, have not been included in the calculation of potential common shares as their effect on diluted per share amounts would have been anti-dilutive.

12. RELATED PARTY TRANSACTIONS

The Company incurred consulting fees to a director of \$163,000 for the year ended December 31, 2008. There were no related party transactions during the periods ended December 31, 2010 or 2009, and no amounts were included in accounts payable and accrued liabilities as at December 31, 2010 and 2009. All transactions were recorded at their exchange amounts.

13. COMMITMENTS AND CONTINGENCIES

Teva Pharmaceutical Industries Ltd.

In December 2009, OncoGenex Pharmaceuticals, Inc., through its wholly-owned subsidiary, OncoGenex Technologies, entered into a Collaboration Agreement with Teva for the development and global commercialization of custirsen (and related compounds). Under the Collaboration Agreement, Teva made upfront payments in the aggregate amount of \$50 million, up to \$370 million upon the achievement of developmental and commercial milestones and royalties at percentage rates ranging from the mid-teens to mid-twenties on net sales. The Company is required to contribute \$30 million in direct and indirect costs towards the Clinical Development Plan. \$8.4 million of these costs have been incurred by OncoGenex in 2009 and 2010, resulting in a remaining funding responsibility of \$21.6 million which has been recorded under Current and Long-term Deferred Collaboration Revenue. Teva will fund all other expenses under the Clinical Development Plan.

Pursuant to the Collaboration Agreement, OncoGenex and Teva agreed to collaborate in the development and global commercialization of custirsen. Teva received the exclusive worldwide right and license to develop and

commercialize products containing custirsen and related compounds (the "Licensed Products"). OncoGenex has an option to co-promote custirsen in the United States and Canada.

In addition to the development costs noted above, Teva is also responsible for all costs relating to product commercialization including costs incurred in relation to the Company's co-promotion option, except for start-up costs in advance of commercialization.

Isis Pharmaceuticals Inc. and University of British Columbia

Pursuant to license agreements the Company has with the UBC and Isis, the Company is obligated to pay milestone payments of up to CAD \$1.6 million and \$7.75 million, respectively, upon the achievement of specified product development milestones related to OGX-427 and OGX-225 and royalties on future product sales.

In addition, we are required to pay to Isis 30% of all Non-Royalty Revenue we receive. Isis has disclosed in its SEC filings that it is entitled to receive 30% of the up to \$370 million in milestone payments we may receive from Teva as part of the Collaboration Agreement; however, we believe that certain of the milestone payments related to sales targets may qualify as Royalty Revenue, and therefore be subject to the lesser payment obligations. No assurance can be provided that we will be entitled to receive these milestone payments or, if we are, that the applicable amount payable to Isis will be less than 30%. We are also obligated to pay to UBC certain patent costs and annual license maintenance fees for the extent of the patent life of CAD \$8,000 per year. We paid Isis and UBC \$750,000 and CAD 100,000, respectively, in 2010 upon the initiation of a phase 2 clinical trial of OGX-427 in patients with CRPC. We do not anticipate making any royalty payments to Isis in 2011.

The UBC agreements have effective dates ranging from November 1, 2001 to April 5, 2005 and each agreement expires upon the later of 20 years from its effective date or the expiry of the last patent licensed thereunder, unless otherwise terminated.

Unless otherwise terminated, the Isis agreements for custirsen and OGX-427 will continue for each product until the later of 10 years after the date of the first commercial product sale, or the expiration of the last to expire of any patents required to be licensed in order to use or sell the product, unless OncoGenex Technologies abandons either custirsen or OGX-427 and Isis does not elect to unilaterally continue development. The Isis agreement for OGX-225 will continue into perpetuity unless OncoGenex Technologies abandons the product and Isis does not elect to unilaterally continue development.

To facilitate the execution and performance of the Collaboration Agreement with Teva, OncoGenex and Isis agreed to amend the Isis License Agreement and the Company and UBC agreed to amend the UBC License Agreement, in each case, effective December 19 and December 20, 2009, respectively.

The amendment to the Isis License Agreement provides, among other things, that if the Company is the subject of a change of control with a third party, where the surviving company immediately following such change of control has the right to develop and sell the product, then (i) a milestone payment of \$20 million will be due and payable to Isis 21 days following the first commercial sale of the product in the United States; and (ii) unless such surviving entity had previously sublicensed the product and a royalty rate payable to Isis by the Company has been established, the applicable royalty rate payable to Isis will thereafter be the maximum amount payable under the Isis License Agreement. Any non-royalty milestone amounts previously paid will be credited toward the \$20 million milestone if not already paid. As a result of the \$10 million milestone payment payable to Isis in relation to the Collaboration Agreement, the remaining amount owing in the event of change of control discussed above is a maximum of \$10 million. As the Company has now licensed the product to Teva and established a royalty rate payable to Isis, no royalty rate adjustments would apply if Teva acquires the Company and is the surviving company. If the \$30 million in advanced reimbursement of development activities has not been spent by OncoGenex prior to the third anniversary of the Collaboration Agreement between OncoGenex and Teva, OncoGenex will pay Isis an amount equal to 30% of any un-spent portion less \$3.5 million.

Bayer HealthCare LLC

On August 7, 2008, Sonus completed an exclusive in-licensing agreement with Bayer HealthCare LLC for the right to develop, commercialize or sublicense a family of compounds known as caspase activators presently in pre-

clinical research. Under terms of the agreement, Sonus was granted exclusive rights to develop two core compounds for all prophylactic and therapeutic uses in humans. Additionally, Sonus was granted rights to all other non-core compounds covered under the patents for use in oncology.

Under the terms of the agreement, Bayer received an upfront license fee of \$450,000. OncoGenex will make annual payments to Bayer on the anniversary date (Anniversary Payments), with an initial payment of \$100,000 paid in 2008. The payments increase by \$25,000 each year until the initiation of the first phase 3 clinical trial, at which point the Anniversary Payments reset to \$100,000 each year and increase by \$25,000 until the Company achieves either the first New Drug Application filing in the United States or the European Union. OncoGenex is obligated to pay royalties on net future product sales in addition to aggregate milestone payments of up to \$14,000,000 for clinical development and regulatory milestones. No milestone payments are triggered prior to the initiation of a phase 3 clinical trial. OncoGenex has the option to terminate this contract upon 60 days written notice to Bayer.

Lease Arrangements

The Company has an operating lease agreement for office space in Vancouver, Canada, which expires in September 2014.

Future minimum annual lease payments under the Vancouver lease are as follows (in thousands):

| | CAD |
|--------------|---------------|
| 2011 | \$ 128 |
| 2012 | 107 |
| 2013 | 107 |
| 2014 | 80 |
| Total | \$ 422 |

In November 2006, prior to the Arrangement, Sonus entered into a non-cancellable operating lease agreement for office space in Bothell, Washington, expiring in 2017 (note 5). In connection with the lease, Sonus was required to provide a cash security deposit of approximately \$497,000, which is included in Other Long Term Assets. In addition, a standby letter of credit was issued in 2010, and \$502,000 was deposited in a restricted money market account as collateral. The Company is currently in the process of evaluating opportunities to exit or sublet portions of the leased space and has recorded a liability in the excess facilities lease charge of \$7,467,000 as at December 31, 2010 (note 8).

If the Company is unable to exit or sublet portions of this leased space, the future minimum annual lease payments are as follows (in thousands):

| | |
|--------------|------------------|
| 2011 | 2,055 |
| 2012 | 2,117 |
| 2013 | 2,180 |
| 2014 | 2,246 |
| 2015 | 2,313 |
| Remainder | 4,837 |
| Total | \$ 15,748 |

Consolidated rent expense relating to both the Vancouver, Canada and Bothell, Washington offices for years ended December 31, 2010, 2009, and 2008 was \$2,338,000, \$2,408,000, and \$801,000 respectively.

Guarantees and Indemnifications

OncoGenex indemnifies its officers and directors for certain events or occurrences, subject to certain limits, while the officer or director is or was serving at our request in such capacity. The term of the indemnification period is equal to the officer's or director's lifetime.

The maximum amount of potential future indemnification is unlimited; however, we have obtained director and officer insurance that limits our exposure and may enable it to recover a portion of any future amounts paid. We believe that the fair value of these indemnification obligations is minimal. Accordingly, we have not recognized any liabilities relating to these obligations as of December 31, 2010.

We have certain agreements with certain organizations with which we do business that contain indemnification provisions pursuant to which we typically agree to indemnify the party against certain types of third-party claims. We accrue for known indemnification issues when a loss is probable and can be reasonably estimated. There were no accruals for or expenses related to indemnification issues for any period presented.

14. COMPREHENSIVE LOSS

| | Year ended December 31, | | |
|---|-------------------------|--------------|--------------|
| | 2010 | 2009 | 2008 |
| (in thousands) | \$ | \$ | \$ |
| Loss for the period | 12,584 | 5,476 | 4,204 |
| Unrealized loss on cash equivalents and marketable securities | 35 | | |
| Unrealized loss on foreign exchange | — | — | 3 |
| | <u>12,619</u> | <u>5,476</u> | <u>4,207</u> |

15. QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

| | Quarter Ended | | | |
|---|--|----------|----------|----------|
| | Dec. 31 | Sept. 30 | Jun. 30 | Mar. 31 |
| | (in thousands, except per share amounts) | | | |
| 2010 | | | | |
| Collaboration revenue | \$ 2,334 | 4,881 | 1,701 | 4,700 |
| Research and development | \$ 2,301 | 6,723 | 3,079 | 6,380 |
| General and administrative | \$ 1,948 | 1,067 | 1,475 | 1,350 |
| Restructuring expense | — | 4,038 | — | — |
| Total expenses | \$ 4,249 | 11,828 | 4,554 | 7,730 |
| Other income (expense) | \$ (885) | 53 | 7 | (14) |
| Tax expense (recovery) | \$ — | — | (3,000) | — |
| Net loss (income) attributable to common shareholders | \$ 2,800 | 6,894 | (154) | 3,044 |
| Net loss (income) per share*: Basic and diluted | \$ 0.31 | 1.07 | (.02) | 0.48 |
| 2009 | | | | |
| Collaboration revenue | \$ 25,539 | \$ — | \$ — | \$ — |
| Research and development | \$ 13,908 | \$ 1,513 | \$ 3,094 | \$ 1,694 |
| General and administrative | \$ 1,291 | \$ 885 | \$ 1,003 | \$ 782 |
| Restructuring expense | 3,457 | — | 494 | — |
| Total expenses | \$ 18,656 | \$ 2,398 | \$ 4,591 | \$ 2,476 |
| Other income (expense) | \$ (3) | \$ 29 | \$ 34 | \$ 57 |
| Tax expense (recovery) | \$ 2,999 | \$ 16 | \$ 6 | \$ (10) |
| Net loss (income) attributable to common shareholders | \$ (3,881) | \$ 2,385 | \$ 4,563 | \$ 2,409 |
| Net loss (income) per share*: Basic and diluted | \$ (0.64) | \$ 0.40 | \$ 0.82 | \$ 0.43 |

*Quarterly EPS may not add to annual figure due to rounding.

16. SUBSEQUENT EVENTS

The Company has performed an evaluation of events occurring subsequent to year end. Based on our evaluation, no material events have occurred requiring financial statement disclosure.

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that material information required to be disclosed in our periodic reports filed or submitted under the Exchange Act, is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Our disclosure controls and procedures are also designed to ensure that information required to be disclosed in the reports we file or submit under the Exchange Act is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

We carried out an evaluation, under the supervision and with the participation of our management, including the principal executive officer and the principal financial officer, of the effectiveness of the design and operation of the disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Based on that evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this Annual Report on Form 10-K.

Changes in Internal Control Over Financial Reporting

We have not made any changes to our internal control over financial reporting (as defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act) during the quarter ended December 31, 2010 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over our financial reporting, as defined, in Rule 13a-15(f) under the Exchange Act. Our internal control over financial reporting is a process designed under the supervision of our principal executive and principal financial officers to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our financial statements for external reporting purposes in accordance with U.S. generally accepted accounting principles.

As of December 31, 2010, management assessed the effectiveness of our internal control over financial reporting based on the framework established in "Internal Control—Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this evaluation, management has determined that our internal control over financial reporting was effective as of December 31, 2010.

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.

The effectiveness of our internal control over financial reporting as of December 31, 2010 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report which is included above.

ITEM 9B. OTHER INFORMATION

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required hereunder is incorporated by reference from our definitive Proxy Statement to be filed within 120 days of December 31, 2010 and delivered to stockholders in connection with our 2011 Annual Meeting of Stockholders.

ITEM 11. EXECUTIVE COMPENSATION

The information required hereunder is incorporated by reference from our definitive Proxy Statement to be filed within 120 days of December 31, 2010 and delivered to stockholders in connection with our 2011 Annual Meeting of Stockholders.

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

The following table sets forth certain information regarding our equity compensation plans as of December 31, 2010:

| Plan category | (a) Number of securities to be issued upon exercise of outstanding options, warrants and rights | (b) Weighted-average exercise price of outstanding options, warrants and rights | (c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) |
|---|--|--|--|
| Equity compensation plans approved by security holders | 734,195 ⁽¹⁾ | \$ 8.82 ⁽¹⁾ | 291,074 ⁽¹⁾ |
| Equity compensation plans not approved by security holders ⁽²⁾ | 10,718 | 2.69 | 0 |
| Total | 744,913 | \$ 8.73 | 291,074 |

(1) As of December 31, 2010, we maintained the following equity compensation plans, which were adopted by Sonus prior to the Arrangement: (a) Incentive Stock Option, Nonqualified Stock Option and Restricted Stock Purchase Plan – 1991, (b) 1999 Nonqualified Stock Incentive Plan, or the 1999 Plan, (c) the 2000 Stock Incentive Plan, (d) the 2007 Performance Incentive Plan, (e) the OncoGenex Technologies Amended and Restated Stock Option Plan and (f) the 2010 Performance Incentive Plan.

(2) The 1999 Plan is a broad-based plan for which stockholder approval was not required or obtained. On February 11, 2010, the 1999 Plan terminated in accordance with its terms. All stock options, rights to purchase, and restricted stock outstanding as of such time will continue in effect in accordance with their respective terms. Stock options granted under the 1999 Plan were generally granted with an exercise price equal to fair market value on the date of grant. Pursuant to the 1999 Plan, upon a change in control, the vesting period for outstanding options, rights to purchase, and restricted stock granted under the 1999 Plan will accelerate and the administrator of the 1999 Plan may provide for the purchase or exchange of each option or right to purchase, adjust the terms of each option or right to purchase, cause the options and rights to purchase to be assumed, or new rights substituted therefor, or make such other provision as the administrator determines is equitable.

The remaining information required hereunder is incorporated by reference from our definitive Proxy Statement to be filed within 120 days of December 31, 2010 and delivered to stockholders in connection with our 2011 Annual Meeting of Stockholders.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required hereunder is incorporated by reference from our definitive Proxy Statement to be filed within 120 days of December 31, 2010 and delivered to stockholders in connection with our 2011 Annual Meeting of Stockholders.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required hereunder is incorporated by reference from our definitive Proxy Statement to be filed within 120 days of December 31, 2010 and delivered to stockholders in connection with our 2011 Annual Meeting of Stockholders.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(1) Financial Statements

| | |
|---|----|
| Report of Independent Registered Public Accounting Firm | 67 |
| Consolidated Balance Sheets as of December 31, 2010 and 2009 | 69 |
| Consolidated Statements of Loss for the years ended December 31, 2010, 2009, and 2008 | 71 |
| Consolidated Statements of Stockholders' Equity for the years ended December 31, 2010, 2009, and 2008 | 72 |
| Consolidated Statements of Cash Flows for the years ended December 31, 2010, 2009, and 2008 | 73 |
| Notes to Consolidated Financial Statements | 74 |

(2)

All schedules are omitted because they are not required or the required information is included in the consolidated financial statements or notes thereto.

(3) Exhibits

| Exhibit Number | Description |
|----------------|---|
| 2.1(1) | Arrangement Agreement between the Company and OncoGenex Technologies Inc. dated May 27, 2008† |
| 2.2(2) | First Amendment to Arrangement Agreement between the Company and OncoGenex Technologies Inc. dated August 11, 2008 |
| 2.3(2) | Second Amendment to Arrangement Agreement between the Company and OncoGenex Technologies Inc. dated August 15, 2008 |
| 3.1(3) | Amended and Restated Certificate of Incorporation (As Amended Through October 17, 1995) |
| 3.2(4) | Certificate of Amendment to Certificate of Incorporation filed on May 6, 1999 |
| 3.3(5) | Certificate of Correction filed on March 9, 2010 to Certificate of Amendment filed on May 6, 1999 |
| 3.4(6) | Certificate of Amendment to Certificate of Incorporation filed on May 7, 2004 |
| 3.5(5) | Certificate of Correction filed on March 9, 2010 to Certificate of Amendment filed on May 7, 2004 |
| 3.6(2) | Certificate of Amendment to Certificate of Incorporation filed on August 20, 2008 |
| 3.7(7) | Certificate of Amendment to Certificate of Incorporation filed on June 8, 2010 |
| 3.8(7) | Fourth Amended and Restated Bylaws of Oncogenex Pharmaceuticals, Inc. |

| Exhibit Number | Description |
|-----------------------|---|
| 4.1(2) | Specimen Certificate of Common Stock |
| 4.2(8) | Amended and Restated Rights Agreement dated as of July 24, 2002 between Sonus Pharmaceuticals Inc. and U.S. Stock Transfer Corporation |
| 4.3(9) | First Amendment to Amended and Restated Rights Agreement dated as of October 17, 2005 between Sonus Pharmaceuticals Inc. and U.S. Stock Transfer Corporation |
| 4.4(10) | Second Amendment to Amended and Restated Rights Agreement dated as of August 10, 2006 between Sonus Pharmaceuticals Inc. and U.S. Stock Transfer Corporation |
| 4.5(11) | Third Amendment to Amended and Restated Rights Agreement dated May 27, 2008 between Sonus Pharmaceuticals Inc. and Computershare Trust Company, N.A. |
| 4.6(1) | Form of Escrow Agreement between the Company, Computershare Trust Company of Canada and former shareholders and debentureholders of OncoGenex Technologies Inc. |
| 4.7(1) | Form of OncoGenex Voting Agreement |
| 4.8(1) | Form of Sonus Voting Agreement |
| 10.1(3) | Sonus Pharmaceuticals, Inc. Incentive Stock Option, Nonqualified Stock Option and Restricted Stock Purchase Plan — 1991 (the “1991 Plan”), as amended†† |
| 10.2(3) | Form of Incentive Option Agreement (pertaining to the 1991 Plan)†† |
| 10.3(3) | Form of Sonus Pharmaceuticals, Inc. Nonqualified Stock Option Agreement under the 1991 Plan†† |
| 10.4(4) | Sonus Pharmaceuticals, Inc. 1999 Nonqualified Stock Incentive Plan (the “1999 Plan”)†† |
| 10.5(4) | Form of Sonus Pharmaceuticals, Inc. Nonqualified Stock Option Agreement under the 1999 Plan†† |
| 10.6(4) | Form of Sonus Pharmaceuticals, Inc. Restricted Stock Purchase Agreement under the 1999 Plan†† |
| 10.7(12) | Sonus Pharmaceuticals, Inc. 2000 Stock Incentive Plan (the “2000 Plan”)†† |
| 10.8(13) | First Amendment to Sonus Pharmaceuticals, Inc. 2000 Plan†† |
| 10.9(12) | Form of Sonus Pharmaceuticals, Inc. Stock Option Agreement (pertaining to the 2000 Plan)†† |
| 10.10(14) | Sonus Pharmaceuticals, Inc. 2007 Performance Incentive Plan (the “2007 Plan”)†† |
| 10.11(15) | Form of Sonus Pharmaceuticals, Inc. Stock Option Agreement (pertaining to the 2007 Plan)†† |
| 10.12(15) | Form of Sonus Pharmaceuticals, Inc. Restricted Stock Purchase Agreement under the 2007 Plan†† |
| 10.13(16) | OncoGenex Technologies Inc. Amended and Restated Stock Option Plan†† |
| 10.14(17) | Stock Option Assumption, Amending and Confirmation Agreement dated as of August 21, 2009 between the Company and OncoGenex Technologies Inc.†† |
| 10.15(18) | Form of OncoGenex Pharmaceuticals, Inc 2010 Stock Option Agreement†† |
| 10.16(18) | Form of OncoGenex Pharmaceuticals, Inc. 2010 Restricted Stock Purchase Agreement†† |

| Exhibit Number | Description |
|---------------------------|--|
| 10.17(19) | OncoGenex Pharmaceuticals, Inc. Short Term Incentive Awards Program†† |
| 10.18(19) | Agreement and Consent Form (related to the Short Term Incentive Awards Program)†† |
| 10.19(20) | OncoGenex Pharmaceuticals, Inc. 2010 Performance Incentive Plan†† |
| 10.20(3) | Form of Indemnification Agreement for Officers and Directors of the Company†† |
| 10.21(16) | Form of Indemnification Agreement between OncoGenex Technologies Inc. and each of Scott Cormack, Stephen Anderson and Cindy Jacobs†† |
| 10.22(16) | Form of Indemnification Agreement between OncoGenex Technologies Inc. and Neil Clendeninn†† |
| 10.23(2) | Executive Termination Agreement and General Release dated August 21, 2008 between the Company and Michael Martino†† |
| 10.24(2) | Executive Termination Agreement and General Release dated August 21, 2008 between the Company and Alan Fuhrman†† |
| 10.25(21) | Employment Agreement between OncoGenex Technologies Inc. and the Company and Scott Cormack dated as of November 4, 2009†† |
| 10.26(21) | Employment Agreement between OncoGenex Technologies Inc. and the Company and Stephen Anderson dated as of November 4, 2009†† |
| 10.27(22) | Amendment dated February 24, 2010 to the Employment Agreement between OncoGenex Technologies Inc. and Stephen Anderson †† |
| 10.28(21) | Employment Agreement between the Company and Cindy Jacobs dated as of November 3, 2009†† |
| 10.29(23) | Employment Agreement dated October 14, 2008 between OncoGenex Technologies Inc. and Cameron Lawrence†† |
| 10.30(23) | Employment Amending Agreement dated January 1, 2009 between OncoGenex Technologies Inc. and Cameron Lawrence†† |
| 10.31(24) | Employment Agreement dated November 5, 2010 between OncoGenex Technologies Inc. and Michelle Burris†† |
| 10.32(25) | Securities Purchase Agreement dated as of August 15, 2005 by and among Sonus Pharmaceuticals Inc. and the investors named therein |
| 10.33(25) | Form of Purchase Warrant related to the Securities Purchase Agreement |
| 10.34(26) | Form of Purchase Warrant issued to Schering AG |
| 10.35(27) | Form of Warrant to Purchase Common Stock |
| 10.36(25) | Registration Rights Agreement dated as of August 15, 2005 by and among Sonus Pharmaceuticals Inc. and the investors named therein |
| 10.37(28) | Lease by and between BMR-217th Place LLC and the Company dated as of November 21, 2006 |

| Exhibit Number | Description |
|-----------------------|---|
| 10.38(29) | First Amendment to Lease by and between BMR-217th Place LLC and the Company dated as of August 17, 2007 |
| 10.39(30) | Second Amendment to Lease by and between BMR-217th Place LLC and the Company dated as of January 28, 2008 |
| 10.40(6) | Amended and Restated License Agreement effective as of July 2, 2008 by and between OncoGenex Technologies Inc. and Isis Pharmaceuticals, Inc. (OGX-011)* |
| 10.41(31) | Letter Agreement Regarding Certain Sublicense Consideration for OGX-011 between OncoGenex Technologies Inc. and Isis Pharmaceuticals, Inc. dated December 18, 2009 |
| 10.42(31) | Amendment No. 1 to Amended and Restated License Agreement between OncoGenex Technologies Inc. and Isis Pharmaceuticals, Inc. dated December 19, 2009 (OGX-011)* |
| 10.43(32) | License Agreement between OncoGenex Technologies Inc. and the University of British Columbia effective as of November 1, 2001, and Amending Agreement dated as of August 30, 2006 (OGX-011)* |
| 10.44(2) | Second Amending Agreement and Consent as of August 7, 2008 between the University of British Columbia and OncoGenex Technologies Inc. (OGX-011) |
| 10.45(31) | Third Amending Agreement to the License Agreement between OncoGenex Technologies Inc and the University of British Columbia dated as of December 20, 2009 (OGX-011)* |
| 10.46(32) | Collaboration and License Agreement between OncoGenex Technologies Inc. and Isis Pharmaceuticals, Inc. effective as of January 5, 2005 (OGX-427)* |
| 10.47(32) | License Agreement between OncoGenex Technologies Inc. and the University of British Columbia effective as of April 5, 2005, and Amending Agreement dated as of August 30, 2006 (OGX-427)* |
| 10.48(2) | Second Amending Agreement as of August 7, 2008 between the University of British Columbia and OncoGenex Technologies Inc. (OGX-427) |
| 10.49(31) | Collaboration and License Agreement between OncoGenex Technologies Inc. and Teva Pharmaceutical Industries Ltd. dated as of December 20, 2009 (OGX-011)* |
| 21.1 | Subsidiaries of the Registrant |
| 23.1 | Consent of Ernst & Young LLP |
| 31.1 | Certification of President and Chief Executive Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 |
| 31.2 | Certification of Chief Financial Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 |
| 32.1 | Certification of President and Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 |
| 32.2 | Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 |

- † Schedules and similar attachments to the Arrangement Agreement have been omitted pursuant to Item 601(b)(2) of Regulation S-K. The Company will furnish supplementally a copy of any omitted schedule or similar attachment to the SEC upon request.
- †† Indicates management contract or compensatory plan or arrangement.
- * Confidential portions of this exhibit have been omitted and filed separately with the Commission pursuant to an application for Confidential Treatment under Rule 24b-2 promulgated under the Securities Exchange Act of 1934, as amended.
- (1) Incorporated by reference to the Company's proxy statement on Schedule 14A filed on July 3, 2008.
 - (2) Incorporated by reference to the Company's quarterly report on Form 10-Q for the quarter ended September 30, 2008.
 - (3) Incorporated by reference to the Company's Registration Statement on Form S-1, Reg. No. 33-96112.
 - (4) Incorporated by reference to Company's quarterly report on Form 10-Q for the quarter ended March 31, 1999.
 - (5) Incorporated by reference to the Company's current report on Form 8-K filed on March 11, 2009.
 - (6) Incorporated by reference to the Company's annual report on Form 10-K for the year ended December 31, 2008.
 - (7) Incorporated by reference to the Company's current report on Form 8-K filed on June 14, 2010.
 - (8) Incorporated by reference to the Company's amended Form 8-A filed on July 25, 2002.
 - (9) Incorporated by reference to the Company's amended Form 8-A filed on October 18, 2005.
 - (10) Incorporated by reference to the Company's amended Form 8-A filed on August 14, 2006.
 - (11) Incorporated by reference to the Company's current report on Form 8-K filed on May 30, 2008.
 - (12) Incorporated by reference to the Company's quarterly report on Form 10-Q for the quarter ended June 30, 2000.
 - (13) Incorporated by reference to the Company's quarterly report on Form 10-Q for the quarter ended September 30, 2006.
 - (14) Incorporated by reference to the Company's proxy statement on Schedule 14A filed on April 3, 2007.
 - (15) Incorporated by reference to the Company's quarterly report on Form 10-Q for the quarter ended September 30, 2007.
 - (16) Incorporated by reference to the OncoGenex Technologies Inc. registration statement on Form F-1 filed on December 13, 2006.
 - (17) Incorporated by reference to the Company's registration statement on Form S-8 filed on August 26, 2008.

- (18) Incorporated by reference to the Company's current report on Form 8-K filed on June 14, 2010.
- (19) Incorporated by reference to the Company's current report on Form 8-K filed on April 2, 2009.
- (20) Incorporated by reference to the Company's definitive proxy statement on Schedule 14A filed on April 19, 2010.
- (21) Incorporated by reference to the Company's quarterly report on Form 10-Q for the quarter ended September 30, 2009.
- (22) Incorporated by reference to the Company's current report on Form 8-K filed February 25, 2010.
- (23) Incorporated by reference to the Company's current report on Form 8-K filed March 1, 2010.
- (24) Incorporated by reference to the Company's current report on Form 8-K filed on November 8, 2010.
- (25) Incorporated by reference to the Company's current report on Form 8-K filed on August 18, 2005.
- (26) Incorporated by reference to the Schedule 13D filed by Schering Berlin Venture Corporation on October 31, 2005.
- 27 Incorporated by reference to the Company's current report on Form 8-K filed on October 19, 2010.
- (28) Incorporated by reference to the Company's annual report on Form 10-K for the year ended December 31, 2006.
- (29) Incorporated by reference to the Company's annual report on Form 10-K for the year ended December 31, 2007.
- (30) Incorporated by reference to the Company's quarterly report on Form 10-Q for the quarter ended March 31, 2008.
- (31) Incorporated by reference to the Company's annual report on Form 10-K for the year ended December 31, 2009.
- (32) Incorporated by reference to the OncoGenex Technologies Inc. registration statement on Form F-1, Amendment No. 1, filed on January 29, 2007.

SIGNATURES

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

ONCOGENEX PHARMACEUTICALS, INC.
(Registrant)

Date: March 10, 2011

By: /s/ SCOTT CORMACK

Scott Cormack
Chief Executive Officer and President
(principal executive officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

| | | |
|---|---|----------------------|
| By: <u>/s/ SCOTT CORMACK</u> Scott Cormack | Chief Executive Officer, President and Director (principal executive officer) | Date: March 10, 2011 |
| By: <u>/s/ MICHELLE BURRIS</u> Michelle Burris | Executive Vice President, Operations and Chief Financial Officer (principal financial officer) | Date: March 10, 2011 |
| By: <u>/s/ JACK GOLDSTEIN</u> Jack Goldstein | Chairman of the Board and Director | Date: March 10, 2011 |
| By: <u>/s/ NEIL CLENDENINN</u> Neil Clendeninn | Director | Date: March 10, 2011 |
| By: <u>/s/ MARTIN MATTINGLY</u> Martin Mattingly | Director | Date: March 10, 2011 |
| By: <u>/s/ H. STEWART PARKER</u> H. Stewart Parker | Director | Date: March 10, 2011 |
| By: <u>/s/ DAVID SMITH</u> David Smith | Director | Date: March 10, 2011 |

SUBSIDIARIES OF THE REGISTRANT

OncoGenex Technologies Inc., incorporated under the federal laws of Canada

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statement (Form S-8 No. 333-56933) pertaining to the OncoGenex Pharmaceuticals, Inc. Incentive Stock Option, Non-qualified Stock Option and Restricted Stock Purchase Plan-1991;
- (2) Registration Statement (Form S-8 No. 333-87897) pertaining to the OncoGenex Pharmaceuticals, Inc. Incentive Stock Option, Non-qualified Stock Option and Restricted Stock Purchase Plan-1991, 1995 Stock Option Plan for Directors, Employee Stock Purchase Plan, and 1999 Non-qualified Stock Incentive Plan;
- (3) Registration Statement (Form S-8 No. 333-49892) pertaining to the OncoGenex Pharmaceuticals, Inc. 1999 Non-qualified Stock Incentive Plan and 2000 Stock Incentive Plan;
- (4) Registration Statement (Form S-8 No. 333-56704) pertaining to the OncoGenex Pharmaceuticals, Inc. 2000 Stock Incentive Plan and 401(k) Profit Sharing Plan and Trust;
- (5) Registration Statement (Form S-8 No. 333-135697) pertaining to the OncoGenex Pharmaceuticals, Inc. 2000 Stock Incentive Plan;
- (6) Registration Statement (Form S-8 No. 333-144552) pertaining to the OncoGenex Pharmaceuticals, Inc., #2007 Performance Incentive Plan and 401(k) Profit Sharing Plan and Trust;
- (7) Registration Statement (Form S-8 No. 333-153206) pertaining to the OncoGenex Technologies, Inc. Amended and Restated Stock Option Plan;
- (8) Registration Statement (Form S-8 No. 333-168820) pertaining to the securities to be offered to employees in employee benefit plans;
- (9) Registration Statement (Form S-3 No. 333-160251) pertaining to the registration of shares of common stock of OncoGenex Pharmaceuticals, Inc. and in the related Prospectus; and
- (10) Registration Statement (Form 424B5 No. 333-160251) of OncoGenex Pharmaceuticals, Inc.

of our report dated March 10, 2011, with respect to the consolidated financial statements of OncoGenex Pharmaceuticals, Inc., included in this Annual Report (Form 10-K) for the year ended December 31, 2010.

Vancouver, Canada,
March 10, 2011.

/s/ ERNST & YOUNG LLP
Chartered Accountants

Certification Pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934

I, Scott Cormack, certify that:

1. I have reviewed this annual report on Form 10-K of OncoGenex 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 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;
 - (c) 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 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):
 - (a) 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.

Date: March 10, 2011

/s/ SCOTT CORMACK

Scott Cormack
President and Chief Executive Officer

Certification Pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934

I, Michelle Burris, certify that:

1. I have reviewed this annual report on Form 10-K of OncoGenex 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 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;
 - (c) 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 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):
 - (a) 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.

Date: March 10, 2011

/s/ Michelle Burris

Michelle Burris
Executive Vice President, Operations and Chief
Financial Officer

Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

I, Scott Cormack, President and Chief Executive Officer of OncoGenex Pharmaceuticals, Inc. (the "Company"), certify, pursuant to Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350, that:

- (1) the Annual Report on Form 10-K of the Company for the annual period ended December 31, 2010 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 780(d)); and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: March 10, 2011

/s/ SCOTT CORMACK

Scott Cormack
President and Chief Executive Officer

Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

I, Michelle Burris, Executive Vice President, Operations and Chief Financial Officer of OncoGenex Pharmaceuticals, Inc. (the "Company"), certify, pursuant to Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350, that:

- (1) the Annual Report on Form 10-K of the Company for the annual period ended December 31, 2010 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 780(d)); and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: March 10, 2011

/s/ Michelle Burris

Michelle Burris
Executive Vice President, Operations and Chief
Financial Officer

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