AVEO PHARMACEUTICALS INC
Form 10-K
March 13, 2014
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# UNITED STATES

# SECURITIES AND EXCHANGE COMMISSION

**Washington, D.C. 20549**

# FORM 10-K

**(Mark One)**

x **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
**For the fiscal year ended: December 31, 2013**

**Or**

¨ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
**For the transition period from to**

**Commission file number: 001-34655**

# AVEO PHARMACEUTICALS, INC.

**(Exact Name of Registrant as Specified in Its Charter)**

| Delaware | 04-3581650 |
|---|---|
| (State or Other Jurisdiction of Incorporation or Organization) | (I.R.S. Employer Identification No.) |

**650 East Kendall Street**

**Cambridge, Massachusetts 02142**

**(Address of Principal Executive Offices) (zip code)**

**Registrant s telephone number, including area code: (617) 299-5000**

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

| Title of each class | Name of each exchange on which registered |
|---|---|
| Common Stock, $.001 par value | NASDAQ Global 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 x

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

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 reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x 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 x No ¨

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405) is not contained herein, and will not be contained, to the best of 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 definitions of large accelerated filer, accelerated filer, and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

| | | | |
|---|---|---|---|
| Large accelerated filer | ¨ | Accelerated filer | x |
| Non-accelerated filer | ¨ (Do not check if a smaller reporting company) | Smaller reporting company | ¨ |

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

The aggregate market value of the registrant s common stock, $0.001 par value per share ( Common Stock ), held by non-affiliates of the registrant, based on the last reported sale price of the Common Stock on the NASDAQ Global Market at the close of business on June 28, 2013, was $93,057,173.

The number of shares outstanding of the registrant s Common Stock as of February 28, 2014: 51,793,605

**Documents incorporated by reference:**

Portions of our definitive proxy statement for our 2014 annual meeting of stockholders are incorporated by reference into Part III of this Annual Report on Form 10-K.

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**References to AVEO**

Throughout this Form 10-K, the words we, us, our and AVEO , except where the context requires otherwise, refer to AVEO Pharmaceuticals, Inc. and its consolidated subsidiaries, and our board of directors refers to the board of directors of AVEO Pharmaceuticals, Inc.

**Forward-Looking Information**

This report contains forward-looking statements regarding, among other things, our future discovery and development efforts, our collaborations, our future operating results and financial position, our business strategy, and other objectives for our operations. You can identify these forward-looking statements by their use of words such as anticipate, believe, estimate, expect, forecast, intend, plan, project, and other words and terms of similar meaning. You also can identify them by the fact that they do not relate strictly to historical or current facts. There are a number of important risks and uncertainties that could cause our actual results to differ materially from those indicated by forward-looking statements. These risks and uncertainties include those inherent in pharmaceutical research and development, such as adverse results in our drug discovery, preclinical trials and clinical development activities, our ability to obtain any necessary financing to conduct our planned activities, decisions made by the U.S. Food and Drug Administration and other regulatory authorities with respect to the development and commercialization of our drug candidates, our ability to obtain, maintain and enforce intellectual property rights for our drug candidates, our dependence on our existing and future strategic partners, and other risk factors. Please refer to the section entitled Risk Factors in Part I Item 1A of this report for a description of these risks and uncertainties. Unless required by law, we do not undertake any obligation to publicly update any forward-looking statements.

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**PART I**

**ITEM 1. Business**

**Overview**

We are a biopharmaceutical company committed to discovering and developing targeted therapies designed to provide substantial impact in the lives of people with cancer by addressing unmet medical needs. AVEO s proprietary Human Response Platform provides the company unique insights into cancer and related disease biology and is being leveraged in the discovery and clinical development of its therapeutic candidates. Some of the programs we are developing include:

**AV-203:** AV-203 is an anti-ErbB3 monoclonal antibody with broad therapeutic potential. AV-203 has high ErbB3 affinity and potent anti-tumor activity in mouse models. AV-203 inhibits the activity of the ErbB3 receptor and our preclinical studies suggest that neuregulin-1, or NRG1, levels predict AV-203 anti-tumor activity in preclinical models. We have completed a phase 1 dose escalation study of AV-203 showing no dose limiting toxicities at maximum dose of 20mg/kg. The single-agent expansion cohort of this study among patients with a specific biomarker has been discontinued. We are currently partnered with Biogen Idec with respect to AV-203, and Biogen Idec has an option for development outside of the United States. Subject to our ability to regain certain rights from Biogen Idec with respect to AV-203, we will seek to resume clinical development with a third party.

**Ficlatuzumab:** Ficlatuzumab is a Hepatocyte Growth Factor, or HGF, inhibitory antibody. HGF is the sole known ligand of the c-Met receptor which is believed to trigger many activities that are involved in cancer development and metastasis. We have completed two phase 1 clinical studies and a phase 2 clinical study evaluating ficlatuzumab in combination with gefitinib in first line non-small cell lung cancer, or NSCLC. The phase 2 trial failed to demonstrate a statistically significant benefit in the intent- to-treat population. However, an exploratory analysis using a serum-based molecular diagnostic test identified a patient sub-population that experienced a progression free survival and overall survival benefit on the combination therapy in the phase 2 trial. We are currently seeking a partner that could support further clinical development in this patient population.

**Tivozanib.** In 2006, we acquired exclusive rights to develop and commercialize tivozanib, worldwide outside of Asia pursuant to a license agreement we entered into with Kirin Brewery Co. Ltd. (now Kyowa Hakko Kirin), or KHK. Tivozanib is an investigational tyrosine kinase inhibitor of all three vascular endothelial growth factor, or VEGF receptors. As discussed below under the heading Strategic Partnerships, we entered into a strategic collaboration with Astellas in which we agreed to share responsibility with Astellas for the continued development and commercialization of tivozanib in the United States, Mexico and Canada, which we refer to collectively as North America, and Europe. Throughout the rest of the world, outside of North America, Europe and Asia, we granted Astellas an exclusive, royalty-bearing license to develop and commercialize tivozanib. On June 10, 2013, we received a complete response letter from the U.S. Food and Drug Administration, or FDA, informing us that the FDA will not approve in its present form our New Drug Application, or NDA, for tivozanib for the treatment of patients with advanced renal cell carcinoma, or RCC. In February 2014, Astellas informed us of its intent to end our collaboration for tivozanib. Currently, our focus with tivozanib is to wind down our activities related to our partnership with Astellas, including on-going support for patients who continue to receive treatment with tivozanib related to our clinical trials in RCC, breast cancer and colorectal cancer, which we had previously announced that we were discontinuing prior to Astellas exercise of its termination. In August 2014, pursuant to the terms of the license agreement, in connection with the termination, all rights for the development and commercialization of tivozanib will revert to AVEO. We will consider further partnering options based on what we believe is a favorable risk and benefit profile which could provide benefit to patients in certain indications.

**AV-380 Program:** In 2012, we initiated a program focusing on cachexia, a serious and common complication of advanced cancer and a number of chronic diseases that is characterized by unintentional

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weight loss, progressive muscle wasting, and a loss of appetite. Our primary research focus is in the area of cancer cachexia where there is a major unmet need. Over 400,000 patients in the United States being treated for cancer also suffer from cachexia. In addition, cachexia is also associated with diseases outside of cancer including congestive heart failure, chronic kidney disease, and chronic obstructive pulmonary disease. AV-380, our lead drug candidate, is a potent humanized IgG1 inhibitory monoclonal antibody targeting growth differentiating factor-15, or GDF-15, a divergent member of the TGF-b. family. In connection with this program, we have in-licensed certain patents and patent applications from St. Vincent s Hospital in Sydney, Australia.

We believe that AV-380 represents a unique approach to treating cachexia because it addresses key underlying mechanisms of the syndrome. In preclinical models, AV-380 has been shown to increase food intake, reverse body weight loss and restore normal body composition. Appropriate IND-enabling efforts, including cell line development, have been initiated to prepare AV-380 for future clinical development, and we expect that we will begin a phase 1 clinical study of AV-380 in cachexia in the second half of 2015. We plan to evaluate opportunities for partnerships to expand the development of AV-380 in cachexia associated with non-cancer indications including chronic heart failure, chronic kidney disease and chronic obstructive pulmonary disease to leverage the full potential of this asset.

Going forward, we plan to focus our internal resources to advance potential first-in-class opportunities, such as our AV-380 program. We also plan to utilize external resources through innovative collaborations and strategic partnerships to develop our other assets. We plan to evaluate our potential drug candidates in accordance with the following criteria:

Identify diseases where no other therapies exist or where there is a well-defined patient population with clear unmet medical needs;

Provide a clear path to proof of concept and approval with reasonable probabilities of success; and

Pursue programs that can deliver value inflections within a projected framework.

**Product Pipeline**

**AV-203: Anti-ErbB3 Antibody**

Through the use of our Human Response Platform, our scientists have highlighted the importance of the ErbB3 receptor in tumor growth. ErbB3 belongs to a family of four proteins that also includes epidermal growth factor receptor, or EGFR, and HER2, both of which have been implicated in promoting the growth of significant numbers of tumors, particularly in breast and lung cancers.

ErbB3 is believed to be an important receptor regulating cancer cell growth and survival, and high ErbB3 levels have been shown to correlate with poor prognoses in several tumor types. It has also been implicated in resistance to certain drugs which target EGFR in lung cancer and with resistance to radiotherapy. In addition, while the anti-HER2 antibody Herceptin has been very successful in treating many breast tumors that express HER2, HER2 is only overexpressed (HER2 positive) in roughly 25% of breast cancer and as many as 60% of HER2 positive patients do not respond to treatment, as reported in a 2007 Herceptin review by C.A. Hudis published in *The New England Journal of Medicine*. Because ErbB3 preferentially binds with HER2, we believe that breast cancer patients who do not respond well to anti-HER2 therapy might benefit from drug combinations with an anti-ErbB3 antibody. AV-203 inhibits the activity of the ErbB3 receptor and our preclinical studies suggest that neuregulin-1, or NRG1, levels predict AV-203 anti-tumor activity.

In March 2009, we entered into an exclusive option and license agreement with Biogen Idec, under which we granted Biogen Idec an exclusive option to obtain rights to co-develop (with us) and commercialize our ErbB3-targeted antibodies for the potential treatment and diagnosis of cancer and other diseases outside of North

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America. Under the agreement, we are responsible for developing ErbB3 antibodies through completion of the first phase 2 clinical trial designed in a manner that, if successful, will generate data sufficient to support advancement to a phase 3 clinical trial.

Within a specified time period after we complete the phase 2 clinical trial and deliver to Biogen Idec a detailed data package containing the results thereof, Biogen Idec may elect to obtain (1) a co-exclusive (with us) worldwide license under our relevant intellectual property to develop and manufacture ErbB3 antibody products, and (2) an exclusive license under our relevant intellectual property to commercialize ErbB3 antibody products in all countries in the world other than in North America. We retain the exclusive right to commercialize ErbB3 antibody products in North America. Until completion of the first phase 2 clinical trial, we are solely responsible for the research, development, and manufacturing of ErbB3 antibody(ies) pursuant to a written work plan meeting specific pre-agreed guidelines. We are solely responsible for all expenses incurred through completion of the first phase 2 clinical trial. If Biogen Idec exercises its option to obtain exclusive commercialization rights to ErbB3 products in its territory, then we will be solely responsible, subject to a mutually agreed development plan, budget and the oversight of a joint development committee, for the global development of ErbB3 antibody products, except that Biogen Idec will be solely responsible for ErbB3 antibody product development activities that relate solely to the Biogen Idec territory. We and Biogen Idec will share global development costs (including manufacturing costs to support development) for ErbB3 antibody products equally, except that Biogen Idec will be solely responsible for all development costs associated solely with the development of ErbB3 antibody products for its territory, and we will be solely responsible for all development costs associated solely with the development of ErbB3 antibody products for North America. We are currently seeking to regain certain rights from Biogen Idec, which will allow for the potential for future clinical development with a third party.

**Ficlatuzumab: Hepatocyte Growth Factor (HGF) Inhibitory Antibody**

Through the use of our Human Response Platform, our scientists have identified the HGF/c-Met pathway as a significant driver of tumor growth. HGF is a protein that circulates in the blood and binds to and activates a receptor called c-Met. HGF is the sole known ligand of c-Met receptor, which is believed to trigger many activities that are involved in cancer development and metastasis. Altered HGF/c-Met signaling is observed in many tumors including lung, head and neck, gastric, bladder, breast, ovarian, prostate and colorectal cancers, certain sarcomas and in multiple myeloma and leukemias. There are no approved therapies that specifically target the HGF/c-Met pathway.

In September 2012, we presented results of the phase 2 portion of a phase 1b/2 clinical trial, which we refer to as the ficlatuzumab phase 2 trial, testing a combination of ficlatuzumab with gefitinib, an epidermal growth factor receptor, or EGFR, tyrosine kinase inhibitor, randomized 1:1 versus gefitinib alone in patients with previously untreated locally advanced or metastatic non-small cell lung cancer, or NSCLC. Patients who demonstrated disease progression during treatment with gefitinib alone had the opportunity to be treated with ficlatuzumab in combination with gefitinib provided that safety was maintained and the patient continued to meet trial eligibility criteria. This 188-patient, randomized clinical trial, which was conducted in Asia, studied response rate and progression-free survival, or PFS, in distinct patient subsets: those with activating EGFR mutations and those with wild-type EGFR. In addition, we are evaluating patient outcome based on c-Met levels expressed in their tumors. The primary endpoint of the study was overall response rate, referred to as ORR; secondary endpoints included PFS, overall survival, or OS, and correlation of biomarkers with clinical activity. In the intent to treat, referred to as ITT, population, the addition of ficlatuzumab to gefitinib did not result in statistically significant improved ORR or PFS in Asian treatment-naïve NSCLC patients. The OS hazard ratio in the ITT population for ficlatuzumab plus gefitinib versus gefitinib monotherapy was 0.98 (95% CI 0.66, 1.46). The combination was well-tolerated, with no clinically meaningful differences in adverse event rates observed between the two arms.

An exploratory analysis using a serum-based molecular diagnostic test identified a patient sub-population that experienced a progression free survival and overall survival benefit on the combination therapy in the

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ficlatuzumab phase 2 trial. These results will be presented at an upcoming scientific meeting. We believe that these results support the continued clinical evaluation of ficlatuzumab in NSCLC and we are currently exploring potential partnership opportunities to support further clinical research of ficlatuzumab.

In November 2011, we entered into an agreement with Boehringer Ingelheim International GmbH, or Boehringer Ingelheim, for large-scale process development and clinical manufacturing of ficlatuzumab. In connection with the agreement, Boehringer Ingelheim is producing ficlatuzumab at its biopharmaceutical sites in Fremont, CA (drug substance) and Beberach, Germany (drug product). We have retained all rights to the development and commercialization of ficlatuzumab.

**Tivozanib: Inhibitor of VEGF Receptors 1, 2 & 3**

Tivozanib is a potent, selective long half-life inhibitor of all three VEGF receptors that is designed to optimize VEGF blockade while minimizing off-target toxicities. The demonstrated clinical results with tivozanib are supported by its core biochemical properties of potency, selectivity and long half-life inhibition of all three VEGF receptors. The potency of tivozanib across VEGF receptors 1, 2 and 3 provides a comprehensive blockade of the VEGF pathway. Its high level of selectivity for all three VEGF receptors is designed to minimize unintended side effects, such as fatigue, diarrhea and hand-foot syndrome, which are often associated with the currently approved therapies. Hypertension and dysphonia were the most commonly reported side effects in patients treated with tivozanib. The occurrence of hypertension and dysphonia are driven by inhibition of the VEGF pathway, and suggest that the pathway has been substantially inhibited by tivozanib. Both hypertension and dysphonia were manageable and reversible in clinical trials. In addition, because tivozanib has demonstrated a long half-life, meaning the time it takes for the concentration of a drug in circulation to be reduced by one-half, we believe it maintains a more consistent blockade of the relevant receptors.

We entered into a collaboration and license agreement with Astellas in February 2011, pursuant to which we and Astellas shared responsibility for tivozanib, including expenses for continued development and any future commercialization of tivozanib, in North America and Europe. Astellas was responsible for continued development and any future commercialization of tivozanib outside of North America, Europe and Asia. Upon entering into our license agreement with KHK, we made a cash payment in the amount of $5.0 million to KHK. In the first quarter of 2010, we paid KHK a $10.0 million milestone payment in connection with the initiation of our phase 3 clinical trial of tivozanib for the treatment of patients with advanced RCC. In the first quarter of 2011, we paid KHK $22.5 million related to the up-front license payment received under the collaboration and license agreement with Astellas. In December 2012, we made a $12.0 million milestone payment to KHK in connection with the acceptance of our NDA filing for tivozanib for the treatment of patients with advanced RCC.

In 2012, we announced detailed data from our global, phase 3 clinical trial comparing the efficacy and safety of tivozanib with Nexavar® (sorafenib), an approved therapy, for first-line treatment in advanced RCC, which we refer to as the TIVO-1 (Tivozanib Versus Sorafenib in 1st line Advanced RCC) study. The TIVO-1 study was conducted in patients with advanced clear cell RCC who had undergone a prior nephrectomy (kidney removal) and who had not received any prior VEGF- or mTOR-targeted therapy. In this trial, we measured, among other things, each patient s progression-free survival, or PFS, which refers to the period of time that began when a patient entered the clinical trial and ended when either the patient died or the patient s cancer had grown by a specified percentage or spread to a new location in the body. This phase 3 trial met its primary endpoint for progression-free survival.

In June 2013, we received a Complete Response letter from the FDA informing us that the FDA would not approve the NDA for tivozanib for the treatment of patients with advanced RCC. In view of the FDA s decision, and our subsequent decision not to pursue tivozanib development in RCC, we announced a strategic restructuring to refocus our efforts on the on-going clinical development of tivozanib in colorectal and breast cancer and on the advancement of key pipeline and preclinical assets. We evaluated tivozanib in additional clinical programs including our BATON (Biomarker Assessment of Tivozanib in ONcology) program, assessing biomarkers in solid tumors that may be predictive of clinical response to tivozanib in patients with metastatic colorectal cancer, and other clinical trials assessing locally recurrent or metastatic triple negative breast cancer.

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The BATON study in patients with colorectal cancer, led by Astellas, was an open-label, randomized Phase 2 study with a primary endpoint evaluating the superiority of tivozanib in combination with modified FOLFOX6, a standard chemotherapy, compared to bevacizumab in combination with modified FOLFOX6 as first-line treatment in patients with advanced metastatic colorectal cancer. On December 13, 2013, we announced that the study was unlikely to meet the primary endpoint in the intent-to-treat population and on February 14, 2014, we announced that we and Astellas agreed to discontinue this study.

The BATON breast cancer study initiated patient enrollment in December 2012 in a randomized, double-blind, multicenter Phase 2 clinical trial, evaluating the efficacy of tivozanib in combination with paclitaxel compared to placebo in combination with paclitaxel in patients with locally recurrent or metastatic triple negative breast cancer who have received no more than one systemic therapy for advanced or metastatic breast cancer. On January 30, 2014, we announced that we and Astellas jointly decided to discontinue the BATON breast cancer clinical trial, due to insufficient enrollment.

On February 12, 2014, Astellas elected to exercise its right to terminate our collaboration and license agreement as a result of the limited scope of development for tivozanib moving forward. This termination will be effective August 2014, at which time all rights for the development and commercialization of tivozanib will revert to AVEO. We will consider further partnering options based on what we believe is a favorable risk and benefit profile which could provide benefit to patients in certain indications.

**AV-380 Program in Cachexia**

In 2012, we initiated a program focusing on cachexia, which we now refer to as our AV-380 program. Cachexia is a serious and common complication of advanced cancer and a number of chronic diseases. It is defined as a multi-factorial syndrome of involuntary weight loss characterized by an ongoing loss of skeletal muscle mass (with or without loss of fat mass) that cannot be fully reversed by conventional nutritional support and leads to progressive functional impairment. The pathophysiology is characterized by a negative protein and energy balance driven by a variable combination of reduced food intake and abnormal metabolism. Other symptoms or conditions associated with cachexia include anemia, breathing difficulties, edema, insulin resistance, muscle weakness/asthenia, and fatigue.

In connection with our cachexia program, we have in-licensed certain patents and patent applications from St. Vincent s Hospital in Sydney, Australia. In December 2013, we presented preclinical data at the 7th Annual Cachexia Conference in Kobe, Japan, demonstrating that growth differentiating factor-15, or GDF-15, induces anorexia and cachexia in mice, suggesting GDF-15 to be a novel target for cachexia. In 2013, we initiated cell line development of AV-380, an antibody discovered using our Human Response Platform, and nominated AV-380 as the development candidate for the program. Appropriate IND-enabling efforts, including cell line development, have been initiated to prepare AV-380 for future clinical development. We expect to initiate clinical development of AV-380 in the second half of 2015.

We believe that cachexia represents a significant area of patient need, particularly in cancer. Weight loss during cancer treatment is associated with more chemotherapy-related side effects fewer completed cycles of chemotherapy, a reduction in response to therapy and decreased survival rates (*J Gastroenterol* 2013; *Eur J Cancer* 1998; *Br J Cancer* 2004). In a cohort of over 3,000 patients in the U.S. studied by the Eastern Cooperative Oncology Group, or ECOG, the prevalence of weight loss even before starting chemotherapy was observed to be substantial across several cancers: over 80% in pancreatic and gastric cancers and over 50% in prostate, colorectal and lung cancers (*Am Med Journal* 1980). It is estimated that more than 30% of all cancer patients die due to cachexia and over half of cancer patients who die do so with cachexia present. (*J Cachexia Sarcopenia Muscle* 2010). In the United States, the estimated prevalence of cancer cachexia is over 400,000 patients (*Am J Clin Nutr* 2006).

There are currently few effective treatment options for cachexia. Cancer cachexia is diagnosed and treated according to four categories: anorexia and food intake, catabolic drive (the breakdown of molecules into smaller

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units to release energy), muscle mass and strength, and function and psychosocial effect. Treatments attempt to address or reverse contributory factors for each category. Only megesterol acetate and medroxyprogesterone are approved to treat cachexia, each exclusively in Europe, despite only about 30% of treated patients showing improvements in appetite and weight gain, which are short term and not accompanied by improvement in quality of life or survival (*Curr Opin Oncol.* 2006). As such, we believe that an effective treatment for cachexia could potentially improve patient outcomes and address a major medical need in patients with cancer as well as other chronic diseases, such as obstructive lung disease, heart failure and kidney disease where, in total, millions of patients suffer from cachexia associated with these chronic diseases. (*Am J Clin Nutr* 2006).

**Other Pipeline Programs**

Using our Human Response Platform, we have identified a number of other promising targets that appear to be potent drivers of tumor growth. Genetic screens conducted using the Human Response Platform have demonstrated that activation of the Notch signaling pathway plays an important role in tumor formation and the maintenance of cancer stem cell populations in tumors. Our team has demonstrated inhibition of tumor growth with a Notch 1 antibody candidate in preclinical tumor models. Work in our Human Response Platform has also identified Fibroblast Growth Factor ligands and receptors as powerful drivers of tumor growth in a variety of tumor models and implicated the activation of the pathway in tumor development.

**Our Human Response Platform**

We were founded with the goal of developing a fundamentally new kind of pre-clinical cancer model designed to overcome many of the limitations of traditional xenograft models, and thereby improve the probability of success in developing new cancer drugs. We utilize these novel models to identify and validate target genes which drive tumor growth, to identify drugs which can block the function of these targets, and to identify patients who are most likely to respond favorably to treatment with such drugs. We have used these models to advance drugs in our pipeline and in collaboration with our strategic partners such as Merck & Co., Inc., or Merck, OSI Pharmaceuticals, Inc., or OSI, Astellas and Biogen Idec. Our cancer models, together with the various techniques we have developed to use these models to aid in the discovery and development of new cancer drugs, are collectively referred to as our Human Response Platform. Key components of our Human Response Platform are covered by issued patents or pending patent applications. We believe that our platform provides unique insights into cancer biology that may provide us and our strategic partners with a competitive advantage in all phases of cancer drug discovery and development.

We believe that our novel cancer models have a number of unique advantages over traditional xenografts and other methods of developing cancer models used in many academic settings. First, because the tumors grow naturally in the subject animals, the normal interactions between tumors and the tissues around them, including blood vessels, are preserved. This is not the case in traditional xenografts, where human tumor cells are implanted into mice, and certain of the important cellular signals sent by the growing human tumor may not be recognized by the surrounding mouse cells. Second, as is the case in human cancer, the cancer cells grow alongside normal cells, whereas in many other cancer models, all of the cells of the subject animal contain the cancer-causing mutations. Third, because of the switch that we introduce into our models, we can activate the cancer-causing mutations after the subject animals are born, replicating what is seen in many human cancers. In many other models, these mutations are activated before the subject animals are born, and interfere with their normal embryonic development. Finally, because tumors in our model develop spontaneously after introduction of the initial cancer causing mutations, we can develop populations of tumors that exhibit differences in genetic backgrounds, again much more akin to what is seen in a population of human tumors.

Because each of the tumors that develop in our models accumulates random genetic mutations independently, populations of tumors in our models exhibit a significant degree of genetic heterogeneity. Consequently, the tumors that develop in our models, like human tumor populations, typically exhibit variation in response to anti-cancer drugs. The tumors in our models have been studied extensively for genetic characteristics, providing an opportunity

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to correlate the genetic makeup, or genetic context, of each tumor with its relative sensitivity or resistance to a given anti-cancer drug. By understanding the genetic context of tumors that respond to particular drugs, we hope to identify genetic markers, or biomarkers, that can be measured in patients prior to treatment to select or predict which tumors, tumor subtypes, or patient subsets are most likely to respond to a given anti-cancer drug. We are using this approach to identify potential biomarkers for our pipeline drugs and it will be important to demonstrate that the biomarkers we identify translate into clinical benefit in humans.

Efforts to identify predictive biomarkers for our development programs are also ongoing.

**Competition**

The biotechnology and pharmaceutical industries are highly competitive. There are many pharmaceutical companies, biotechnology companies, public and private universities and research organizations actively engaged in the research and development of products that may be similar to our products. A number of multinational pharmaceutical companies, as well as large biotechnology companies, including Roche Laboratories, Inc., or Roche, Pfizer Inc., or Pfizer, Bayer HealthCare AG, or Bayer, Sanofi-Aventis, US, LLC, Amgen, Inc. and GlaxoSmithKline plc, or GSK, are pursuing the development or are currently marketing pharmaceuticals that target VEGF, HGF and ErbB3, or other oncology pathways on which we are focusing. It is probable that the number of companies seeking to develop products and therapies for the treatment of unmet needs in the lives of people with cancer will increase.

Many of our competitors, either alone or with their strategic partners, have greater financial, technical and human resources than we do and greater experience in the discovery and development of product candidates, obtaining FDA and other regulatory approvals of products and the commercialization of those products. Accordingly, our competitors may be more successful than we may be in obtaining approval for drugs and achieving widespread market acceptance. Our competitors drugs may be safer and more effective, or more effectively marketed and sold, than any drug we may commercialize and may render our product candidates obsolete or non-competitive before we can recover the expenses of developing and commercializing any of our product candidates. We anticipate that we will face intense and increasing competition as new drugs enter the market and advanced technologies become available.

***AV-203 Program Competition***

We believe the most direct competitors to our AV-203 program that are in phase 1 and phase 2 development are monoclonal antibodies that specifically target the ErbB3 receptor, including Merrimack Pharmaceuticals, Inc. s and Sanofi-Aventis US LLC s MM-121, which is currently in phase 2 clinical development, and Daiichi Sankyo, Inc. s and Amgen, Inc. s patritumab (AMG-888), which is also in phase 2 clinical development. Other clinical-stage ErbB3-specific competitors include Roche s RG-7116, Novartis s LJM716, Regeneron s REGN1400, GSK s GSK-2849330 and Kolltan s KTN-3379. Clinical stage competitor s targeting ErbB3 in addition to other targets include Roche s MEHD7945A, and Merrimack Pharmaceuticals, Inc. s MM-111 and MM-141.

***Ficlatuzumab Competition***

We believe the products that are considered competitive with ficlatuzumab include those agents targeting the HGF/c-Met pathway. The agents exclusively targeting this pathway consist of the only other HGF-targeted antibody, Amgen s AMG-102 (rilotumumab), currently in a phase 3 clinical trial, as well as Lilly s c-Met receptor antibody LY-2875358, currently in multiple phase 2 trials. In addition, Roche is developing a c-Met receptor antibody onartuzumab (MetMAb/ 5D5 Fab), which is in multiple phase 3 trials. Roche recently announced that an independent data monitoring committee recommended that its phase 3 trial of onartuzumab in second and third line NSCLC be stopped due to lack of efficacy.

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Other marketed or late clinical-stage drugs which target the HGF/c-Met pathway, though not exclusively, include Pfizer s PF-2341066 (Xalkori, crizotinib), Exelixis Inc. s XL-184 (Cometriq, cabozantinib), ArQule, Inc. s/ Daiichi Sankyo, Inc. s ARQ-197 (tivantanib), Mirati Therapeutics (formerly MethylGene) MGCD-265, Eisai Co. Ltd. s E-7050 (golvatinib), Exelixis Inc. s and GSK s XL-880 (foretinib), Incyte Corp. s and Novartis s INCB-028060 and Sanofi-Aventis s SAR-125844, EMD Serono s MSC2156119J, Amgen Astellas BioPharma s AMG 337, and Bristol-Myers Squibb Company s and Aslan Pharmaceuticals BMS-777607.

***Tivozanib Competition***

There are currently nine FDA-approved drugs in oncology which target the VEGF pathway. Seven of the FDA-approved VEGF pathway inhibitors are oral small molecule receptor tyrosine kinase inhibitors, or TKIs. Nexavar (sorafenib) and Stivarga (regorafenib) are marketed by Bayer and Onyx, a subsidiary of Amgen, Sutent (sunitinib) and Inlyta (axitinib) are marketed by Pfizer, and Votrient (pazopanib) is marketed by GSK. Most of these approved VEGFR TKIs are not specific to the VEGF receptors. Nexavar is approved for advanced RCC and unresectable hepatocellular cancer. Stivarga is approved for refractory metastatic colorectal cancer, or mCRC, and refractory gastrointestinal stromal tumors, or GIST. Sutent is approved for advanced RCC, GIST, and progressive, well-differentiated pancreatic neuroendocrine tumors. Inlyta is approved for advanced RCC after failure of one prior systemic therapy. Votrient is approved for advanced RCC and advanced soft tissue sarcoma after prior chemotherapy. Caprelsa (vandetanib), marketed by AstraZeneca, and Cometriq (cabozantinib), marketed by Exelixis, are approved for medullary thyroid carcinoma.

Avastin (bevacizumab), marketed by Roche/Genentech, is an infused monoclonal antibody approved in combination with other anti-cancer agents for the treatment of mCRC, non-squamous non-small cell lung cancer, and metastatic RCC. It is also approved as a monotherapy for the treatment of glioblastoma in patients with progressive disease following prior therapy. Zaltrap (zif-aflibercept), marketed by Sanofi and Regeneron, is a VEGF-trap molecule that binds to multiple circulating VEGF factors, and is approved in combination with standard chemotherapy agents for treatment of second line mestatatic CRC.

Many of the approved VEGF pathway inhibitor agents are in ongoing development in additional cancer indications. Additionally, we are aware of a number of companies that have ongoing phase 2 and 3 programs to develop both small molecules and biologics that target the VEGF pathway.

***AV-380 Program in Cachexia Competition***

Currently, in most markets globally, no agents have been approved for the treatment or prevention of cachexia caused by any disease, and few available treatments are effective in battling the symptoms, much less the underlying cause, of this wasting condition. Megace and medroxyprogesterone are approved for cancer cachexia in Europe, despite its low efficacy. Three agents have recently completed or are currently involved in Phase 3 trials. One agent, GTx, Inc. s selective androgen receptor modulator, or SARM, called enobosarm (GT-024) recently completed two Phase 3 trials for the prevention and treatment of muscle wasting in newly diagnosed locally advanced or metastatic non-small cell lung cancer patients. Another agent in Phase 3 trials is Helsinn s anamorelin, which is currently being studied in newly diagnosed locally advanced non-small cell lung cancer patients who have cachexia. A third agent, XBiotech s xilonix (MABp1), is in a Phase 3 trial for metastatic colorectal cancer patients who are cachectic and refractory to standard therapies.

A number of agents with different mechanisms of action are currently being studied in Phase 2 trials in cachexia or muscle wasting. Agents targeting the muscle regulatory molecule myostatin include Lilly s LY2495655, Regeneron s REGN-1033, and Atara Biosciences PINTA 745. Novartis is currently studying bimagrumab (BYM-338), an agent targeting the activin receptor. Drugs with other mechanisms currently in or recently completing Phase 2 clinical trials include Aeterna Zentaris macimorelin (ghrelin), Alder Biosciences clazakizumab (ALD-518, targeting IL-6), PsiOxus MT-102 (dual acting catabolic/anabolic transforming agent), Acacia s APD-209 (progestin/antagonist) and Ohr Pharmaceuticals OHR118 (cytoprotectant/immunomodulator).

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**Strategic Partnerships**

We have entered into multiple strategic partnerships in which we have in-licensed rights to compounds and granted rights to tivozanib, our antibody candidates and certain aspects of our Human Response Platform. Many of these agreements provide us with a source of cash flow in the form of up-front payments, equity investments, research and development funding, payments upon achievement of specified milestones, and potential royalties from product sales.

***St. Vincent s Hospital***

In July 2012, we entered into a license agreement with St. Vincent s Hospital Sydney Limited, which we refer to as St. Vincent s, under which we obtained an exclusive, worldwide license, with the right to grant sublicenses subject to certain restrictions, under specified patent rights and related know-how, to research, develop, manufacture and commercialize products for therapeutic applications that benefit from inhibition or decreased expression or activity of MIC-1, which is also known as GDF-15 and which we refer to throughout this Annual Report as GDF-15. We are exploiting this license in our AV-380 program for cachexia. We have a right of first negotiation to obtain an exclusive license to certain improvements that St. Vincent s or third parties may make to licensed therapeutic products. Under the license agreement, St. Vincent s also granted us non-exclusive rights for certain related diagnostic products and research tools.

Under the license agreement, we are obligated to use diligent efforts to conduct research and clinical development and commercially launch at least one licensed therapeutic product, and to maximize profits from licensed therapeutic products for the benefit of us and St. Vincent s. Subject to certain conditions, we have also agreed to achieve specified research, development and regulatory milestones by specified dates. If we do not achieve a given milestone by the agreed date, we have the option of paying the amount we would have been obligated to pay had we timely achieved the milestone, and, if we do so, St. Vincent s will not have the right to terminate the license agreement based on our failure to timely achieve such milestone.

We have also agreed that, for as long as there is a valid claim in the licensed patents, we will not, and we will ensure that our affiliates and our sublicensees do not, develop or commercialize any product, other than a licensed therapeutic product, for the treatment, prevention or prophylaxis of cachexia, decreased appetite or body weight, that binds to GDF-15 or the GDF-15 receptor and that is a GDF-15 antagonist, and will not license or induce any other person to do the same.

In connection with entering into the license agreement with St. Vincent s, we paid St. Vincent s an upfront license fee of $0.7 million and a low five-figure amount to reimburse St. Vincent s for patent-related expenses it incurred with respect to a specified licensed patent.

Under our license agreement with St. Vincent s, we may be required to:

- make milestone payments, up to an aggregate total of $9.2 million, upon achievement of specified research, development and regulatory milestones for the first three indications for licensed therapeutic products, some of which payments may be increased by a mid to high double-digit percentage rate for milestones payments made after we grant any sublicense under the license agreement, depending on the sublicensed territory or territories;

- pay tiered royalty payments equal to a low-single-digit percentage of any net sales we or our sublicensees make of licensed therapeutic products. The royalty rate escalates within the low-single-digit range during each calendar year based on increasing licensed therapeutic product sales during such calendar year. Our royalty payment obligations for a licensed therapeutic product in a particular country end on the later of 10 years after the date of first commercial sale of such licensed therapeutic product in such country or expiration of the last-to-expire valid claim of the licensed patents covering such licensed therapeutic product in such country, and are subject to offsets under certain circumstances;

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pay St. Vincent s sublicensing fees of up to an aggregate amount in the low-to-mid six-digits, depending on the sublicensed territory or territories, at the time we grant any sublicense; and

reimburse St. Vincent s for some or all of the reasonable costs and expenses it incurs in patent management, filing, prosecuting and maintaining the licensed patents.

The license agreement will remain in effect until the later of 10 years after the date of first commercial sale of licensed therapeutic products in the last country in which a commercial sale is made, or expiration of the last-to-expire valid claim of the licensed patents, unless we elect, or St. Vincent s elects, to terminate the license agreement earlier.

Either party has the right to terminate the agreement in connection with a material breach of the agreement by the other party that remains uncured for a specified cure period, or in connection with events relating to the other party s insolvency or bankruptcy, or if a force majeure event continues for more than 4 months.

St. Vincent s has the right to terminate the agreement due to any patent-related challenge by us, our affiliates or any sublicensee, or if we or our affiliates or any sublicensee cause or induce any other person to make a patent-related challenge, and such challenge continues after a specified cure period.

We have the right to terminate the agreement on 6 months notice if we terminate our GDF-15 research and development programs as a result of the failure of a licensed therapeutic product in pre-clinical or clinical development, or if we form the reasonable view that further GDF-15 research and development is not commercially viable, and we are not then in breach of any of our obligations under the agreement. If we form the reasonable view that further GDF-15 research and development is not commercially viable and terminate the agreement before we start a phase 1 clinical trial on a licensed therapeutic product, we will be required to pay St. Vincent s a low-to-mid six-figure termination payment.

We may also terminate the agreement on 60 days notice if certain licensed patents become invalid or unenforceable prior to July 2, 2014, are not in breach of any of our obligations under the agreement, and we, our affiliates and sublicensees have not made a patent-related challenge.

Any termination of the agreement, in whole or in part, will result in a loss of our rights to the relevant licensed patents and know-how. If St. Vincent s terminates the agreement in its entirety due to our breach, insolvency or a patent-related challenge, or we terminate the agreement due to a development failure or lack of commercial viability, as described above, St. Vincent s will have a non-exclusive license from us to certain intellectual property rights and know-how relating to the licensed therapeutic products, and we must transfer to St. Vincent s certain then-existing regulatory approvals and related documents for the licensed therapeutic products.

***Kyowa Hakko Kirin***

In December 2006, we entered into a license agreement with Kirin Brewery Co. Ltd. (now Kyowa Hakko Kirin) which we sometimes refer to as KHK, under which we obtained an exclusive license, with the right to grant sublicenses subject to certain restrictions, to research, develop, manufacture and commercialize tivozanib, pharmaceutical compositions thereof and associated biomarkers. Our exclusive license covers all territories in the world, except for Asia. KHK has retained rights to tivozanib in Asia. Under the license agreement, we obtained exclusive rights in our territory under certain KHK patents, patent applications and know-how related to tivozanib, to research, develop, make, have made, use, import, offer for sale, and sell tivozanib for the diagnosis, prevention and treatment of any and all human diseases and conditions. We and Kyowa Hakko Kirin each have access to and can benefit from the other party s clinical data and regulatory filings with respect to tivozanib and biomarkers identified in the conduct of activities under the license agreement.

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Under the license agreement, we are obligated to use commercially reasonable efforts to develop and commercialize tivozanib in our territory, including meeting certain specified diligence goals. Prior to the first anniversary of the first post-marketing approval sale of tivozanib in our territory, neither we nor any of our subsidiaries has the right to conduct certain clinical trials of, seek marketing approval for or commercialize any other cancer product that also works by inhibiting the activity of the VEGF receptor.

Upon entering into the license agreement with KHK, we made a one-time cash payment in the amount of $5.0 million. In addition, we are required to make various milestone payments which could total, in the aggregate, $60.0 million, including a milestone payment in connection with the TIVO-1 study and certain other milestone payments upon the achievement of specified regulatory milestones. In March 2010, we made a $10.0 million milestone payment to KHK in connection with the dosing of the first patient in our phase 3 clinical trial of tivozanib for the treatment of patients with advanced renal cell cancer, or RCC. We made a $22.5 million payment to KHK during the year ended December 31, 2011 related to the up-front license payment received under the collaboration and license agreement with Astellas which we entered into in February 2011. In December 2012, we made a $12.0 million milestone payment to KHK in connection with the acceptance by the FDA of our NDA filing for tivozanib for the treatment of patients with advanced RCC. We are also required to pay tiered royalty payments on net sales we make of tivozanib in our territory, which range from the low to mid teens as a percentage of net sales. The royalty rate escalates within this range based on increasing tivozanib sales. Our royalty payment obligations in a particular country in our territory begin on the date of the first commercial sale of tivozanib in that country and end on the later of 12 years after the date of first commercial sale of tivozanib in that country or the date of the last to expire of the patents covering tivozanib that have been issued in that country. In the event we sublicense the rights licensed to us under the license agreement, we are required to pay KHK a specified percentage of any amounts we receive from any third party sublicensees, other than amounts we receive in respect of research and development funding or equity investments, subject to certain limitations.

The license agreement will remain in effect until the expiration of all of our royalty and sublicense revenue obligations to Kyowa Hakko Kirin, determined on a product-by-product and country-by-country basis, unless we elect, or KHK elects, to terminate the license agreement earlier. If we fail to meet our obligations under the agreement and are unable to cure such failure within specified time periods, Kyowa Hakko Kirin can terminate the agreement, resulting in a loss of our rights to tivozanib and an obligation to assign or license to Kyowa Hakko Kirin any intellectual property or other rights we may have in tivozanib, including our regulatory filings, regulatory approvals, patents and trademarks for tivozanib.

***Astellas Pharma***

In February 2011, we entered into a collaboration and license agreement with Astellas and certain of its indirect wholly-owned subsidiaries in connection with which we and Astellas made plans to develop and seek to commercialize tivozanib for the treatment of a broad range of cancers. On February 12, 2014, Astellas exercised its right to terminate the agreement, as a result of the limited scope of development for tivozanib moving forward. The termination of the agreement will be effective August 11, 2014, at which time tivozanib rights will be returned to us. In accordance with the agreement, committed development costs, including the costs of winding down discontinued tivozanib clinical development programs, will be shared equally. There are no refund provisions in the agreement.

Under the terms of the collaboration agreement, we and Astellas shared responsibility for development and commercialization of tivozanib in the United States, Canada and Mexico, which we refer to collectively as North America, and Europe under a joint development plan and joint commercialization plan. Throughout the rest of the world (other than North America, Europe and Asia), which we refer to as the royalty territory, Astellas had an exclusive, royalty-bearing license to develop and commercialize tivozanib.

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In connection with the agreement, we received an initial cash payment of $125 million, comprised of a $75 million license fee and $50 million in research and development funding, both of which are non-creditable and non-refundable against any amounts due under the collaboration agreement. We retained net proceeds of approximately $97.6 million of the initial cash payment from Astellas, after payments to KHK and strategic, legal and financial advisors. In December 2012, we received a $15.0 million milestone payment from Astellas in connection with the acceptance by the FDA of our NDA filing for tivozanib for the treatment of patients with advanced RCC. We elected to recognize all milestone payments under the collaboration agreement as revenue once the milestones have been triggered if the milestone is deemed to be substantive.

***Biogen Idec***

In March 2009, we entered into an exclusive option and license agreement with Biogen Idec regarding the development and commercialization of our discovery-stage ErbB3-targeted antibodies for the potential treatment and diagnosis of cancer and other diseases in humans outside of North America. Under the agreement, we are responsible for developing ErbB3 antibodies through completion of the first phase 2 clinical trial designed in a manner that, if successful, will generate data sufficient to support advancement to a phase 3 clinical trial. Until a specified time after we complete this phase 2 clinical trial and deliver to Biogen Idec a detailed data package containing the results thereof, Biogen Idec may elect to obtain (1) a co-exclusive (with us), worldwide license, including the right to grant sublicenses, under our relevant intellectual property to develop and manufacture ErbB3 antibody products, and (2) an exclusive license, including the right to grant sublicenses, under our relevant intellectual property, to commercialize ErbB3 antibody products in all countries in the world other than North America. We retain the exclusive right to commercialize ErbB3 antibody products in North America. In this description, the countries in the world other than North America are referred to as Biogen Idec s territory, and North America is referred to as our territory. If Biogen Idec exercises its exclusive option to ErbB3 antibody products, Biogen Idec will grant us (a) a co-exclusive (with Biogen Idec), worldwide license under Biogen Idec s relevant intellectual property, to develop and manufacture ErbB3 antibody products anywhere in the world, and (b) an exclusive license under Biogen Idec s relevant intellectual property, to commercialize ErbB3 antibody products in North America.

If Biogen Idec exercises its option to obtain exclusive commercialization rights to ErbB3 products in its territory, we will then be solely responsible, subject to a mutually agreed development plan, budget and the oversight of a joint development committee, for the global development of ErbB3 antibody products, except that Biogen Idec will be solely responsible for ErbB3 antibody product development activities that relate solely to the Biogen Idec territory. Further, neither party has the right to conduct development activities in its respective territory if those development activities would materially and adversely affect the development of ErbB3 antibody products in the other party s territory. We and Biogen Idec will share global development costs (including manufacturing costs to support development) for ErbB3 antibody products equally, except that Biogen Idec will be solely responsible for all development costs associated solely with the development of ErbB3 antibody products for its territory, and we will be solely responsible for all development costs associated solely with the development of ErbB3 antibody products for North America. If either party wishes to develop a new ErbB3 antibody product under the agreement, and the other party does not also wish to develop that product, the party that desires to conduct development activities regarding the new ErbB3 antibody product has the right to independently, and at its sole cost, develop and manufacture the new ErbB3 antibody product for commercialization solely in its territory. If either party wishes to develop a ErbB3 antibody product for a new indication under the agreement, and the other party does not also wish to develop that product for such indication, the party that desires to conduct development activities regarding the new indication has the right to independently, and at its sole cost, develop and manufacture the new ErbB3 antibody product for such indication for commercialization solely in its territory, and the other party may elect, under specified circumstances, to pay to obtain rights to relevant clinical data to pursue regulatory approval for such indication in its territory.

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We have agreed that, prior to Biogen Idec s exercise of its exclusive option, or until the expiration of Biogen Idec s option right, we and our affiliates will not grant any third party rights to develop ErbB3 antibodies in our territory or in the Biogen Idec territory. We have also agreed that, during the term of the agreement, we will not grant any third party rights to develop or commercialize ErbB3 antibody products if such third party is independently developing or commercializing its own product containing an ErbB3 antibody. Prior to entering into discussions with, or granting a license or sublicense to, any third party with respect to the commercialization of ErbB3 antibody products, we are required to negotiate in good faith with Biogen Idec for a limited time period with respect to granting such rights to Biogen Idec. We have also agreed that, except pursuant to our agreement with Biogen Idec, during the term of the agreement, neither we nor our affiliates, alone or with or on behalf of any third party, will develop, manufacture or commercialize any ErbB3 antibody for therapeutic or diagnostic use in humans, or grant rights to any third party to do any of the foregoing.

If Biogen Idec fails to exercise its exclusive option to co-develop and commercialize ErbB3 antibody products, then the agreement will terminate on the date Biogen Idec s option right expires, and we will retain all of our rights to develop, manufacture and commercialize our ErbB3 antibody products. If Biogen Idec exercises its exclusive option to co-develop and commercialize ErbB3 antibody products, then, unless earlier terminated, the agreement will remain in effect until the last to expire of all royalty obligations under the agreement, or, if later, upon completion of any development activities that were pending before the expiration of all royalty obligations under the agreement.

If Biogen Idec terminates the agreement for convenience, or if we terminate the agreement due to a material breach of the agreement by Biogen Idec, in each case with respect to one or more ErbB3 antibody products after Biogen Idec s exercise of its exclusive option, then at our election, (1) Biogen Idec will lose all rights to the terminated product(s), (2) we will have the worldwide right to develop, manufacture and commercialize the terminated product(s), subject to milestone and royalty obligations to Biogen Idec in our territory and in the Biogen Idec territory, and (3) Biogen Idec will be required to transfer to us all regulatory approvals, data, promotional materials and other documents, materials and information reasonably necessary to enable us to develop, manufacture and commercialize the terminated products in the Biogen Idec territory. If Biogen Idec terminates the agreement due to our material breach of the agreement, at Biogen Idec s election (1) if not yet exercised, Biogen Idec will be deemed to have exercised its exclusive option and will not be required to pay us the option exercise fee, (2) Biogen Idec will have no further milestone payment obligations to us, (3) we will lose all rights to the terminated product(s), (4) Biogen Idec will have the worldwide right to develop, manufacture and commercialize the terminated product(s), subject to increased royalty obligations to us based on worldwide net sales, and (5) we will be required to transfer to Biogen Idec all regulatory approvals, data, promotional materials and other documents, materials and information reasonably necessary to enable Biogen Idec to develop, manufacture and commercialize the terminated products in our territory.

***OSI Pharmaceuticals***

In September 2007, we entered into a collaboration and license agreement with OSI Pharmaceuticals, Inc. (a wholly-owned subsidiary of Astellas US Holding Inc., a holding company owned by Astellas Pharma Inc.), or OSI. This strategic partnership is primarily focused on the identification and validation of genes and targets involved in the processes of epithelial-mesenchymal transition or mesenchymal-epithelial transition, in cancer. In July 2009, we expanded our strategic partnership with OSI and we granted OSI a non-exclusive license to use our proprietary bioinformatics platform, and non-exclusive, perpetual licenses to use bioinformatics data and to use a proprietary gene index related to a specific target pathway.

Under the July 2009 expanded agreement, if all applicable milestones are achieved, all remaining payments for the successful achievement of discovery, development and commercialization milestones under the agreement could total, in the aggregate, over $46.0 million, comprised of approximately (i) $8.4 million in substantive milestone payments upon achievement of specified clinical and development milestone events,

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(ii) $20.7 million in substantive milestone payments upon achievement of specified regulatory milestone events, and (iii) $17.5 million in milestone payments upon the achievement of specified sales amounts. In addition, we are eligible to receive up to $24.0 million in biomarker-related milestones.

In May 2012, we earned a patent-related milestone payment of $0.3 million upon filing of a patent application by OSI, and we also earned a clinical and development milestone payment of $0.8 million for commencement by OSI of GLP toxicology studies.

The next milestone payment that we may receive pursuant to this agreement is a $2.0 million clinical and development milestone for phase 1 clinical trial dosing. The next regulatory milestone payment we may receive pursuant to this agreement is $7.0 million to be achieved for the filing of an NDA with the FDA. We do not expect to achieve either of these milestones in the near future. Upon commercialization of products under the agreement, we are eligible to receive tiered royalty payments on sales of products by OSI, its affiliates and sublicensees.

The collaboration and license agreement will remain in effect until the expiration of both OSI s royalty obligations to us, and our royalty obligations to OSI, in each case determined on a product-by-product and country-by-country basis. Either party has the right to terminate the agreement in connection with a material breach of the agreement by the other party that remains uncured for a specified cure period. If OSI elects to terminate the agreement due to our material breach, we will lose our rights to certain intellectual property developed under the strategic partnership, and OSI will have the right to reduce its milestone and royalty obligations to us by the amount of monetary damages suffered by OSI as a direct result of our material breach. If we elect to terminate the agreement due to OSI s material breach of the agreement, OSI s licenses to all targets and products will terminate and revert to us, subject to our continued milestone and royalty payment obligations to OSI, which we will have the right to reduce by the amount of monetary damages we suffer as a direct result of OSI s breach. OSI may elect to terminate the agreement with respect to a particular collaboration target and all its associated products, in which event OSI s license to such target and products terminates and reverts to us, subject to our continued milestone and royalty payment obligations to OSI. For a specified time period after such termination, OSI and its affiliates may not, nor may they grant third parties the right to, conduct research or development activities with respect to the terminated collaboration target.

**Intellectual Property Rights**

***Patent Rights***

We have been building and intend to continue to build a strong intellectual property portfolio. We strive for multi-tiered patent protection, where possible. With respect to tivozanib, we have exclusively licensed patents that cover the molecule and its therapeutic use (patent expiration 2022, with the possibility of patent term extension to 2025 in the United States), a key step in manufacturing the molecule, and a crystal form of the molecule, i.e., a polymorph with low hygroscopicity used in the clinical formulation. With respect to tivozanib, we have:

U.S. patents: 3 issued; none pending; expirations ranging from 2018 to 2023

European patents: 3 granted; none pending; expirations ranging from 2018 to 2023

Canadian patents: 1 granted; none pending; expiration 2022

Australian patents: 1 granted; none pending; expiration 2022

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Complementing these in-licensed patents relating to tivozanib are two of our own issued U.S. patents that cover different biomarker tests for identifying human patients likely to respond to treatment with tivozanib, and an issued U.S. patent on a method of using tivozanib in combination with temsirolimus. With respect to tivozanib related technologies, we have:

U.S. patents: 3 issued; 1 pending; expirations ranging from 2029 to 2030

European patents: none granted; 2 pending; expirations ranging from 2029 to 2030

Canadian patents: none granted; 2 pending; expirations ranging from 2029 to 2030

Australian patents: none granted; 2 pending; expirations ranging from 2029 to 2030

International applications: 1 pending

With respect to GDF-15 antibodies, we have exclusively licensed a family of patents in the field of GDF-15 inhibition for therapeutic, preventative and palliative applications, including increasing appetite and/or body weight in subjects where decreased appetite and/or body weight loss due to elevated expression or amounts of GDF-15. Such patent expires in the United States in 2029 and in the European Union, if issued, in 2025.

With respect to the licensed technologies, we have:

U.S. patents: 3 issued; 3 pending; expirations ranging from 2016 to 2029

European patents: 2 granted; 3 pending; expirations ranging from 2016 to 2028

Japanese patents: 2 allowed; 3 pending; expirations ranging from 2021 to 2028.

Canadian patents: none granted; 4 pending; expiration 2016 to 2028

Australian patents: 3 granted; 2 pending; expiration 2016 to 2028

New Zealand: 1 granted; none pending; expiration 2016

Chinese patents: none granted; 1 pending; expiration 2028

Indian patents: none granted; 1 pending; expiration 2028

Complementing these in-licensed patents relating to GDF-15 inhibition, we have filed our own international patent application that covers our GDF antibodies. The patent, were it to be issued, would expire in 2033.

In addition to the to the above patents and patent applications related to tivozanib and GDF-15 antibodies, we own issued U.S. patents containing composition-of-matter claims that cover our HGF antibodies, including ficlatuzumab, our ErbB3 antibodies, our FGFR2 and FGFR3 antibodies, and our RON antibodies. In addition, we own pending patent applications covering our HGF antibodies, ErbB3 antibodies, FGFR2 antibodies, Notch 1 and Notch3 antibodies, and methods of making and using those antibodies. We are prepared to file patent applications on other antibodies in our antibody product pipeline soon after the experimental data necessary for an application becomes available. In addition, we own a pending patent application on use of a predictive biomarker for identifying patients likely to respond to one of our antibodies. We also own a granted U.S. patent and pending foreign counterpart patent applications covering a method of identifying cancer tissue likely to be sensitive or resistant to treatment with an inhibitor of Notch receptor activation. With respect to our antibody product pipeline, we have:

U.S. patents: 13 issued; 6 pending; expirations ranging from 2027 to 2031

European patents: 2 granted; 4 pending; expirations ranging from 2027 to 2031

Japanese patents: 2 granted; 5 pending; expirations ranging from 2027 to 2031

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Canadian patents: none granted; 5 pending; expirations ranging from 2027 to 2031

Australian patents: 2 granted; 3 pending; expirations ranging from 2027 to 2031

International applications: 3 pending

In addition to patents relating to tivozanib, GDF-15, ficlatuzumab, AV-203 and other therapeutic antibodies in our product pipeline, our patent portfolio contains a number of other patents and patent applications relevant to our business. We own a granted U.S. patent and issued foreign counterparts covering a method of making a chimeric mouse cancer model. We also own a granted U.S. patent and issued foreign counterparts covering a method of producing primary tumor material via directed complementation. We also own a granted U.S. patent and pending U.S. and foreign patent applications covering a mouse model that contains a human breast tumor. We own pending patent applications that cover a general method for identifying new, multi-gene biomarkers for predicting response to an anti-cancer drug of interest, as well as specific multi-gene biomarkers identified by using the same method. With respect to our technology platforms, we have:

U.S. patents: 5 issued; 3 pending; expirations ranging from 2020 to 2032

European patents: 3 granted; 2 pending; expirations ranging from 2022 to 2026

Japanese patents: 3 granted; 1 pending; expirations ranging from 2022 to 2026

Canadian patents: 2 granted; none pending; expirations ranging from 2022 to 2026

Australian patents: 4 granted; none pending; expirations ranging from 2022 to 2026

International applications: 2 pending.

In addition to filing and prosecuting patent applications in the United States, we file counterpart patent applications in Europe, Canada, Japan, Australia (and sometimes additional countries), in cases where we think such foreign filing is likely to be cost-effective.

The term of individual patents depends upon the legal term of the patents in the countries in which they are obtained. In most countries in which we file, the patent term is 20 years from the earliest date of filing a non-provisional patent application. In the United States, a patent s term may be lengthened by patent term adjustment, which compensates a patentee for administrative delays by the U.S. Patent and Trademark Office in granting a patent. A U.S. patent term may be shortened, if a patent is terminally disclaimed by its owner, over another patent.

The patent term of a patent that covers an FDA-approved drug may also be eligible for patent term extension, which permits patent term restoration as compensation for the patent term lost during the FDA regulatory review process. The Drug Price Competition and Patent Term Restoration Act of 1984, or the Hatch-Waxman Act, permits a patent term extension of up to five years beyond the expiration of the patent. The length of the patent term extension is related to the length of time the drug is under regulatory review. Patent extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval, and only one patent applicable to an approved drug may be extended. Similar provisions are available in Europe and other foreign jurisdictions to extend the term of a patent that covers an approved drug. In the future, if and when our pharmaceutical products receive FDA approval, we expect to apply for patent term extensions on patents covering those products.

Many pharmaceutical companies, biotechnology companies and academic institutions are competing with us in the field of oncology and filing patent applications potentially relevant to our business. In order to contend with the inevitable possibility of third party intellectual property conflicts, we make freedom-to-operate studies an ongoing part of our business operations. With regard to tivozanib, we are aware of a third party United States patent, and corresponding foreign counterparts, that contain broad claims related to the use of an organic compound that, among

other things, inhibits tyrosine phosphorylation of a VEGF receptor caused by VEGF binding to such VEGF receptor. We are also aware of third party United States patents that contain broad claims related to the use of a tyrosine kinase inhibitor in combination with a DNA damaging agent such as

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chemotherapy or radiation and we have received written notice from the owners of such patents indicating that they believe we may need a license from them in order to avoid infringing their patents. With regard to ficlatuzumab, we are aware of two separate families of United States patents, United States patent applications and foreign counterparts, with each of the two families being owned by a different third party, that contain broad claims related to anti-HGF antibodies having certain binding properties and their use. With regard to GDF-15, we are aware of a third-party United States patent that contains broad claims related to antibodies binding to the GDF-15 protein, which patent is set to expire in 2014. With regard to AV-203, we are aware of a third party United States patent that contains broad claims relating to anti-ErbB3 antibodies. Based on our analyses, if any of the above third party patents were asserted against us, we do not believe our proposed products or activities would be found to infringe any valid claim of these patents. If we were to challenge the validity of any issued United States patent in court, we would need to overcome a statutory presumption of validity that attaches to every United States patent. This means that in order to prevail, we would have to present clear and convincing evidence as to the invalidity of the patent s claims. There is no assurance that a court would find in our favor on questions of infringement or validity.

From time to time, we find it necessary or prudent to obtain licenses from third party intellectual property holders. Where licenses are readily available at reasonable cost, such licenses are considered a normal cost of doing business. In other instances, however, we may use the results of freedom-to-operate studies to guide our early-stage research away from areas where we are likely to encounter obstacles in the form of third party intellectual property. For example, where a third party holds relevant intellectual property and is a direct competitor, a license might not be available on commercially reasonable terms or available at all. We strive to identify potential third party intellectual property issues in the early stages of research of our research programs, in order to minimize the cost and disruption of resolving such issues.

In spite of these efforts to avoid obstacles and disruptions arising from third party intellectual property, it is impossible to establish with certainty that our technology platform or our product programs will be free of claims by third party intellectual property holders. Even with modern databases and on-line search engines, literature searches are imperfect and may fail to identify relevant patents and published applications. Even when a third party patent is identified, we may conclude upon a thorough analysis, that we do not infringe the patent or that the patent is invalid. If the third party patent owner disagrees with our conclusion and we continue with the business activity in question, patent litigation may be initiated against us. Alternatively, we might decide to initiate litigation in an attempt to have a court declare the third party patent invalid or non-infringed by our activity. In either scenario, patent litigation typically is costly and time-consuming, and the outcome is uncertain. The outcome of patent litigation is subject to uncertainties that cannot be quantified in advance, for example, the credibility of expert witnesses who may disagree on technical interpretation of scientific data. Ultimately, in the case of an adverse outcome in litigation, we could be prevented from commercializing a product or using certain aspects of our technology platform as a result of patent infringement claims asserted against us. This could have a material adverse effect on our business.

To protect our competitive position, it may be necessary to enforce our patent rights through litigation against infringing third parties. Litigation to enforce our own patent rights is subject to the same uncertainties discussed above. In addition, however, litigation involving our patents carries the risk that one or more of our patents will be held invalid (in whole or in part, on a claim-by-claim basis) or held unenforceable. Such an adverse court ruling could allow third parties to commercialize our products or our platform technology, and then compete directly with us, without making any payments to us.

***Trade Secrets***

For some aspects of our proprietary technology, trade secret protection is more appropriate than patent protection. For example, our proprietary bioinformatics software tools and databases are protected as trade

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secrets. Our bioinformatics tools and databases give us the means to store, analyze, interpret and integrate the large volume of data generated from our various tumor models and from analysis of human clinical samples from clinical trials. We continually make incremental improvements in our proprietary software tools, as we tailor them to the changing needs of our research and development programs. In general, trade secret protection can accommodate this continuing evolution of our bioinformatics system better than other forms of intellectual property protection.

***Trademarks***

We seek trademark protection in the U.S. and foreign jurisdictions where available and when appropriate. We have filed to register several trademarks intended for potential use in the marketing of tivozanib. We own a U.S. trademark that we use in connection with our research and development (Human Response Platform). We also own a U.S. trademark (The Human Response ) and a U.S. trademark application (AVEO Oncology The Human Response ) that we use in connection with our business, in general.

**Manufacturing**

We currently contract with third parties for the manufacture of clinical, to the extent we require, and commercial quantities of our product candidates and intend to do so in the future. We do not own or operate manufacturing facilities for the production of clinical or commercial quantities of our product candidates. We currently have no plans to build our own clinical or commercial scale manufacturing capabilities. Although we rely on contract manufacturers, we have personnel with extensive manufacturing experience to oversee the relationships with our contract manufacturers.

One of our contract manufacturers has manufactured what we believe to be sufficient quantities of tivozanib s drug substance to support our ongoing clinical trials. In addition, we currently engage a separate contract manufacturer to manufacture, package and distribute clinical supplies of tivozanib.

As of December 27, 2010, the effective date of the termination of our collaboration with Merck relating to ficlatuzumab, we became responsible for all process development and all manufacturing of ficlatuzumab for future development and commercialization. Prior to Merck s termination of its collaboration agreement with us, multiple batches of drug product were produced by Merck to support clinical trials of ficlatuzumab through phase 2 clinical trials. In November 2011, we entered into an agreement with Boehringer Ingelheim for large-scale process development and clinical manufacturing of ficlatuzumab. In connection with the agreement, Boehringer Ingelheim is producing ficlatuzumab at its biopharmaceutical sites in Fremont, CA (drug substance) and Biberach, Germany (drug product).

In August 2010, we entered into an agreement with Gallus BioPharmaceuticals, LLC (previously known as Laureate Pharma, Inc.), or Gallus, for the clinical manufacture of AV-203 drug substance. Gallus has produced two batches of AV-203 drug substance for clinical trials at its site in Princeton, NJ. AV-203 drug product is produced at Microtest Laboratories, Inc. in Agawam, Massachusetts.

On March 9, 2014, we entered into a manufacturing agreement with AbbVie Inc. for the process and development of AV-380.

To date, our third-party manufacturers have met our manufacturing requirements. We believe that there are alternate sources of supply that can satisfy our clinical and commercial requirements, although we cannot be certain that identifying and establishing relationships with such sources, if necessary, would not result in significant delay or material additional costs.

**Government Regulation**

Government authorities in the United States (including federal, state and local authorities) and in other countries, extensively regulate, among other things, the manufacturing, research and clinical development,

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marketing, labeling and packaging, distribution, post-approval monitoring and reporting, advertising and promotion, and export and import of pharmaceutical products, such as those we are developing. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources.

***United States Government Regulation***

In the United States, the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act, or FDCA, and related regulations. Drugs are also subject to other federal, state and local statutes and regulations. Biological products are subject to regulation by the FDA under the FDCA, the Public Health Service Act, and related regulations, and other federal, state and local statutes and regulations. Failure to comply with the applicable U.S. regulatory requirements at any time during the product development process, approval process or after approval, may subject an applicant to administrative or judicial sanctions. These sanctions could include the imposition by the FDA or an Institutional Review Board, or IRB, of a clinical hold on trials, the FDA s refusal to approve pending applications or supplements, withdrawal of an approval, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, civil penalties or criminal prosecution. Any agency or judicial enforcement action could have a material adverse effect on us.

***The Investigational New Drug Process***

An Investigational New Drug application, or an IND, is a request for authorization from the FDA to administer an investigational drug or biological product to humans. Such authorization must be secured prior to interstate shipment (usually to clinical investigators) and administration of any new drug or biological product to humans that is not the subject of an approved New Drug Application or Biologics License Application, except under limited circumstances.

To conduct a clinical investigation with an investigational new drug or biological product, we are required to file an IND with the FDA in compliance with Title 21 of the Code of Federal Regulations (CFR), Part 312. These regulations contain the general principles underlying the IND submission and the general requirements for an IND s content and format.

The central focus of the initial IND submission is on the general investigational plan and the protocol(s) for human studies. The IND also includes results of animal studies or other human studies, as appropriate, as well as manufacturing information, analytical data and any available clinical data or literature to support the use of the investigational new drug or biological product. An IND must become effective before human clinical trials may begin. An IND will automatically become effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions related to the proposed clinical trials as outlined in the IND. In such a case, the IND may be placed on clinical hold and the IND sponsor and the FDA must resolve any outstanding concerns or questions before clinical trials can begin. Accordingly, submission of an IND may or may not result in the FDA allowing clinical trials to commence.

Clinical trials involve the administration of the investigational drug or biological product to patients under the supervision of qualified investigators in accordance with Good Clinical Practices, or GCPs. Clinical trials are conducted under protocols detailing, among other things, the objectives of the study, the parameters to be used in monitoring safety, and the efficacy criteria to be evaluated. A protocol for each clinical trial and any subsequent protocol amendments must be submitted to the FDA as part of the IND. Additionally, approval must also be obtained from each clinical site s independent IRB before the trials may be initiated. All participants in our clinical trials must provide their informed consent in writing in compliance with GCPs and the ethical principles that have their origin in the Declaration of Helsinki.

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The clinical investigation of an investigational drug or biological product is generally divided into three phases. Although the phases are usually conducted sequentially, they may overlap or be combined. The three phases of an investigation are as follows:

Phase 1. Phase 1 includes the initial introduction of an investigational new drug or biological product into humans. Phase 1 clinical trials are typically closely monitored and may be conducted in patients with the target disease or condition or healthy volunteers. These studies are designed to evaluate the safety, dosage tolerance, metabolism and pharmacologic actions of the investigational drug or biological product in humans, the side effects associated with increasing doses, and if possible, to gain early evidence on effectiveness. During phase 1 clinical trials, sufficient information about the investigational drug s or biological product s pharmacokinetics and pharmacological effects may be obtained to permit the design of well-controlled and scientifically valid phase 2 clinical trials. The total number of participants included in phase 1 clinical trials varies, but is generally in the range of 20 to 80.

Phase 2. Phase 2 includes the controlled clinical trials conducted to preliminarily or further evaluate the effectiveness of the investigational drug or biological product for a particular indication(s) in patients with the disease or condition under study, to determine dosage tolerance and optimal dosage, and to identify possible adverse side effects and safety risks associated with the drug or biological product. Phase 2 clinical trials are typically well-controlled, closely monitored, and conducted in a limited patient population, usually involving no more than several hundred participants.

Phase 3. Phase 3 clinical trials are generally controlled clinical trials conducted in an expanded patient population generally at geographically dispersed clinical trial sites. They are performed after preliminary evidence suggesting effectiveness of the drug or biological product has been obtained, and are intended to further evaluate dosage, clinical effectiveness and safety, to establish the overall benefit-risk relationship of the investigational drug or biological product, and to provide an adequate basis for product approval. Phase 3 clinical trials usually involve several hundred to several thousand participants.

The FDA s primary objectives in reviewing an IND are to assure the safety and rights of patients and to help assure that the quality of the investigation will be adequate to permit an evaluation of the drug s effectiveness and safety and of the biological product s safety, purity and potency. The decision to terminate development of an investigational drug or biological product may be made by either a health authority body such as the FDA, an IRB or ethics committee, or by us for various reasons. Additionally, some trials are overseen by an independent group of qualified experts organized by the trial sponsor, known as a data safety monitoring board or committee. This group provides authorization for whether or not a trial may move forward at designated check points based on access that only the group maintains to available data from the study. Suspension or termination of development during any phase of clinical trials can occur if it is determined that the participants or patients are being exposed to an unacceptable health risk. Other reasons for suspension or termination may be made by us based on evolving business objectives and/or competitive climate.

In addition, there are requirements and industry guidelines that require the posting of ongoing clinical trials on public registries, and the disclosure of designated clinical trial results.

***The NDA/BLA Approval Process***

In order to obtain approval to market a drug or biological product in the United States, a marketing application must be submitted to the FDA that provides data establishing the safety and effectiveness of the drug product for the proposed indication, and the safety, purity and potency of the biological product for its intended indication. The application includes all relevant data available from pertinent preclinical and clinical trials, including negative or ambiguous results as well as positive findings, together with detailed information relating to the product s chemistry, manufacturing, controls and proposed labeling, among other things. Data can come

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from company-sponsored clinical trials intended to test the safety and effectiveness of a use of a product, or from a number of alternative sources, including studies initiated by investigators. To support marketing approval, the data submitted must be sufficient in quality and quantity to establish the safety and effectiveness of the investigational drug product and the safety, purity and potency of the biological product to the satisfaction of the FDA.

The steps required before an investigational drug or biological product may be marketed in the United States generally include:

- Completion of preclinical laboratory tests, animal studies and formulation studies in compliance with the FDA s Good Laboratory Practices, or GLP, regulations;
- Submission to the FDA of an IND to support human clinical testing;
- Approval by an IRB at each clinical site before each trial may be initiated;
- Performance of adequate and well-controlled clinical trials in accordance with GCP to establish the safety and efficacy of the investigational drug product for each targeted indication or the safety, purity and potency of the biological product for its intended indication;
- Submission of an NDA or Biologics License Application, or BLA, to the FDA;
- Satisfactory completion of an FDA Advisory Committee review, if applicable;
- Satisfactory completion of an FDA inspection of the manufacturing facilities at which the investigational drug or biological product is produced to assess compliance with current good manufacturing practices, or cGMP, and to assure that the facilities, methods and controls are adequate to preserve the product s identity, strength, quality and purity; and
- FDA review and approval of the NDA or BLA.

In most cases, the NDA or BLA must be accompanied by a substantial user fee; there may be some instances in which the user fee is waived.

The FDA will initially review the NDA or BLA for completeness before it accepts the NDA or BLA for filing. The FDA has 60 days from its receipt of an NDA or BLA to determine whether the application will be accepted for filing based on the agency s threshold determination that it is sufficiently complete to permit substantive review. After the NDA submission is accepted for filing, the FDA reviews the NDA to determine, among other things, whether the proposed product is safe and effective for its intended use, and whether the product is being manufactured in accordance with cGMP to assure and preserve the product s identity, strength, quality and purity. After the BLA submission is accepted for filing, the FDA reviews the BLA to determine, among other things, whether the product is safe, pure and potent and the facility in which it is manufactured, processed, packaged or held meets standards designed to assure the product s continued safety, purity and potency. The FDA may refer applications for novel drug or biological products or drug or biological products that present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes outside clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Before approving an NDA or BLA, the FDA will carefully review and typically require changes to the proposed product labeling. The FDA will also inspect the facilities at which the product is manufactured. The FDA will not approve the product unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving an NDA or BLA, the FDA will typically inspect one or more clinical sites to

assure compliance with GCP. If the FDA determines the application, manufacturing process or manufacturing facilities are not acceptable, it will outline the deficiencies in the submission and often will request additional testing or information. Notwithstanding the submission of any requested additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval.

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The testing and approval process requires substantial time, effort and financial resources, and each may take several years to complete. Data obtained from clinical activities are not always conclusive and may be susceptible to varying interpretations, which could delay, limit or prevent regulatory approval. The FDA may not grant approval on a timely basis, or at all. We may encounter difficulties or unanticipated costs in our efforts to develop our product candidates and secure necessary governmental approvals, which could delay or preclude us from marketing our products. Even if the FDA approves a product, it may limit the approved indications for use, impose prominent warnings, or place other conditions on any approvals that could restrict the commercial application of the products such as a requirement that we implement special risk management measures through a Risk Evaluation and Mitigation Strategy. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes and additional labeling claims, are subject to further testing requirements and FDA review and approval.

***Post-Approval Regulation***

After regulatory approval of a drug or biological product is obtained, we are required to comply with a number of post-approval requirements. For example, as a condition of approval of an NDA or BLA, the FDA may require post-marketing testing, including phase 4 clinical trials, and surveillance to further assess and monitor the product s safety and effectiveness after commercialization. Regulatory approval of oncology products often requires that patients in clinical trials be followed for long periods to determine the overall survival benefit of the drug or biologic. In addition, as a holder of an approved NDA or BLA, we would be required to report, among other things, certain adverse events and production problems to the FDA, to provide updated safety and efficacy information, and to comply with requirements concerning advertising and promotional labeling for any of our products. Also, quality control and manufacturing procedures must continue to conform to cGMP after approval to assure and preserve the long term stability of the drug or biological product. The FDA periodically inspects manufacturing facilities to assess compliance with cGMP, which imposes extensive procedural, substantive and record keeping requirements. In addition, changes to the manufacturing process are strictly regulated, and, depending on the significance of the change, may require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP and impose reporting and documentation requirements upon us and any third party manufacturers that we may decide to use. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain compliance with cGMP and other aspects of regulatory compliance.

We rely, and expect to continue to rely, on third parties for the production of clinical and commercial quantities of our product candidates. Future FDA, foreign regulatory authorities, and state inspections may identify compliance issues at our facilities or at the facilities of our contract manufacturers that may disrupt production or distribution, or require substantial resources to correct. In addition, discovery of previously unknown problems with a product or the failure to comply with applicable requirements may result in restrictions on a product, manufacturer or holder of an approved NDA or BLA, including withdrawal or recall of the product from the market or other voluntary, FDA-initiated or judicial action that could delay or prohibit further marketing. Newly discovered or developed safety or effectiveness data may require changes to a product s approved labeling, including the addition of new warnings and contraindications, and also may require the implementation of other risk management measures.

Also, new government requirements, including those resulting from new legislation, may be established, or the FDA s policies may change, which could delay or prevent regulatory approval of our products under development and/or could significantly impact the requirements imposed on us after approval.

***Europe / Rest of World Government Regulation***

In addition to regulations in the United States, we will be subject to a variety of regulations in other jurisdictions governing, among other things, clinical trials and any commercial sales and distribution of our products.

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Whether or not we obtain FDA approval for a product, we must obtain the requisite approvals from regulatory authorities in foreign countries prior to the commencement of clinical trials or marketing of the product in those countries. Certain countries outside of the United States have a similar process that requires the submission of a clinical trial application much like the IND prior to the commencement of human clinical trials. In the European Union, for example, a clinical trial application, or CTA, must be submitted to each country s national health authority and an independent ethics committee, much like the FDA and IRB, respectively. Once the CTA is approved in accordance with a country s requirements, and relevant ethics committees have issued positive opinions, the clinical trial covered by the CTA may proceed. In all cases, the clinical trials must be conducted in accordance with GCP and the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki.

To obtain regulatory approval of an investigational drug or biological medicinal product under European Union regulatory systems, we must submit a marketing authorization application. The application used to file the NDA or BLA in the United States is similar to that required in Europe, with the exception of, among other things, country-specific documentation requirements. The requirements and process governing pricing and reimbursement in the European Union vary from country to country.

For other countries outside of the European Union, such as countries in Latin America or Asia, the requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary from country to country. In all cases, again, any clinical trials that we sponsor must be conducted in accordance with GCP and the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki.

If we fail to comply with applicable foreign regulatory requirements, we may be subject to, among other things, fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

***Compliance***

During all phases of development (pre- and post-marketing), failure to comply with the applicable regulatory requirements may result in administrative or judicial sanctions. These sanctions could include the FDA s imposition of a clinical hold on trials or the suspension of clinical trials by other regulatory authorities, refusal to approve pending applications, withdrawal of an approval, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, product detention or refusal to permit the import or export of products, injunctions, fines, civil penalties or criminal prosecution. Any agency or judicial enforcement action could have a material adverse effect on us.

***Available Special Regulatory Procedures***

*Formal Meetings*

We are encouraged to engage and seek guidance from health authorities relating to the development and review of investigational drugs and biologics, as well as marketing applications. In the United States, there are different types of official meetings that may occur between us and the FDA. Each meeting type is subject to different procedures. Conclusions and agreements from each of these meetings are captured in the official final meeting minutes issued by the FDA.

The EMA and national medicines regulators within the EU also provide the opportunity for dialogue with us. At the EMA level, this is usually done in the form of Scientific Advice, which is given by the Scientific Advice Working Party of the Committee for Medicinal Products for Human Use, or CHMP. A fee is incurred with each Scientific Advice procedure.

Advice from either the FDA or EMA is typically provided based on questions concerning, for example, quality (chemistry, manufacturing and controls testing), nonclinical testing and clinical studies, and pharmacovigilance plans and risk-management programs. Advice is not legally binding with regard to any future

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marketing authorization application of the product concerned. To obtain binding commitments from the FDA on the design and size of clinical trials intended to form the primary basis of an effectiveness claim, Special Protocol Assessment procedures are available. Where the FDA agrees to a Special Protocol Assessment, or SPA, the agreement may not be changed by either the sponsor or the FDA except if the sponsor and the FDA agree to a change, or a senior FDA official determines that a substantial scientific issue essential to determining the safety or effectiveness of the product was identified after the testing began. An SPA is not binding if new circumstances arise, and there is no guarantee that a study will ultimately be adequate to support an approval even if the study is conducted according to the terms of an SPA.

*Orphan Drug Designation*

The FDA may grant orphan drug designation to drugs and biological products intended to treat a rare disease or condition that affects fewer than 200,000 individuals in the United States, or if it affects more than 200,000 individuals in the United States and there is no reasonable expectation that the cost of developing and making the drug or biological product for this type of disease or condition will be recovered from sales in the United States. In the European Union, the EMA s Committee for Orphan Medicinal Products, or COMP, may recommend orphan drug designation to promote the development of products that are intended for the diagnosis, prevention or treatment of life-threatening or chronically debilitating conditions affecting not more than 5 in 10,000 persons in the European Union. Additionally, designation is granted for products intended for the diagnosis, prevention or treatment of a life-threatening, seriously debilitating or serious and chronic condition and when, without incentives, it is unlikely that sales of the drug in the European Union would be sufficient to justify the necessary investment in developing the drug or biological product. In addition, the COMP may only recommend orphan drug designation when the product in question offers a significant clinical benefit over existing approved products for the relevant indication. Following a positive opinion by the COMP, the European Commission adopts a decision granting orphan status. The COMP will reassess orphan status in parallel with EMA review of a marketing authorization application and orphan status may be withdrawn at that stage if it no longer fulfills the orphan criteria.

In the United States, orphan drug designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages and user-fee waivers. In addition, if a product receives the first FDA approval for the indication for which it has orphan designation, the product is entitled to orphan drug exclusivity, which means the FDA may not approve any other application to market the same drug or biological product for the same indication for a period of 7 years, except in limited circumstances, such as a showing of clinical superiority over the product with orphan exclusivity or if the product with orphan exclusivity experiences a shortage.

In the European Union, orphan drug designation also entitles a party to financial incentives such as reduction of fees or fee waivers and 10 years of market exclusivity is granted following drug or biological product approval. During this period, regulators may not accept or approve any similar medicinal product, unless it offers a significant clinical benefit. This period may be reduced to 6 years if the orphan drug designation criteria are no longer met, including where it is shown that the product is sufficiently profitable not to justify maintenance of market exclusivity.

Orphan drug designation must be requested before submitting an application for marketing approval. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process.

*Pediatric Development*

In the United States, Section 505A of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 355a, Pediatric Studies of Drugs) provides for an additional 6 months of marketing exclusivity for a drug if reports are filed of investigations studying the use of the drug product in a pediatric population in response to a written request from

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the FDA. Separate from this potential exclusivity benefit, NDAs and BLAs must contain data (or a proposal for post-marketing activity) to assess the safety and effectiveness of an investigational drug or biological product for the claimed indications in all relevant pediatric populations in order to support dosing and administration for each pediatric subpopulation for which the drug is safe and effective. The FDA may, on its own initiative or at the request of the applicant, grant deferrals for submission of some or all pediatric data until after approval of the product for use in adults or full or partial waivers if certain criteria are met. Discussions about pediatric development plans can be discussed with the FDA at any time, but usually occur any time between the end-of-phase 2 meeting and submission of the NDA or BLA.

For the EMA, a Pediatric Investigation Plan, and/or a request for waiver or deferral, is required for submission prior to submitting a marketing authorization application.

*Authorization Procedures in the European Union*

There are two types of marketing authorization procedures for medicinal products in the European Union; the centralized authorization procedure and national authorization procedures.

Centralized procedure. The centralized procedure gives rise to marketing authorizations that are valid throughout the European Union and, by extension, in three European Economic Area, or EEA member states, Norway, Iceland and Liechtenstein. Applicants file marketing authorizations with the EMA, where they are reviewed by a relevant scientific committee, which is most likely the Committee for Medicinal Products for Human Use, or CHMP. The EMA forwards CHMP positive opinions to the European Commission, which uses them as the basis for a decision granting a marketing authorization. The centralized procedure is compulsory for human medicines that are: derived from biotechnology processes, such as recombinant DNA technology, controlled expression of genes in prokaryotes and eukaryotes and hybridoma and monoclonal antibody methods. It is also mandatory for products containing a new active substance indicated for the treatment of certain diseases, such as HIV/AIDS, cancer, diabetes, neurodegenerative disorders, viral diseases or autoimmune diseases and other immune dysfunctions, and officially designated orphan medicines. For medicines that do not fall within these categories, an applicant has the option of submitting an application for a centralized marketing authorization to the EMA, as long as the CHMP accepts that the medicine concerned is a significant therapeutic, scientific or technical innovation, or if its authorization would be in the interest of public health.

National authorization procedures. There are also two other possible routes to authorize medicinal products in more than one EU or EEA country, which are available for investigational drug products that fall outside the scope of the centralized procedure:

*Decentralized procedure.* Using the decentralized procedure, an applicant may apply for simultaneous authorization in more than one EEA country of medicinal products that have not yet been authorized in any EEA country and that do not fall within the mandatory scope of the centralized procedure. The applicant selects a so-called reference member state, or RMS, to take the lead in the review of the application. Other member states are expected to recognize the RMS decision, unless they identify a serious risk to public health. If the member states cannot resolve any such concerns between themselves, the matter is referred to the CHMP for an opinion and ultimately a binding European Commission decision.

*Mutual recognition procedure.* In the mutual recognition procedure, a medicine is first authorized in one EEA RMS, in accordance with the national procedures of that country. Following this, further marketing authorizations can be sought from other EEA countries in a procedure whereby the countries concerned agree to recognize the validity of the original, national marketing authorization. As in the decentralized procedure, these concerned member states must recognize the RMS approval unless they identify a serious risk to the public health. If the member states cannot reach a consensus between themselves, the matter can be referred to the CHMP.

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*Priority Review / Standard Review (United States) and Accelerated Review (European Union)*

Based on results of phase 3 clinical trials, an NDA or BLA may receive either priority or standard review from the FDA. Priority review is given where preliminary estimates indicate that a product, if approved, would provide a significant improvement in safety or effectiveness of the treatment, diagnosis or prevention of a serious condition. Under PDUFA V, effective October 1, 2012, where an application receives priority review, the target date for FDA action will be 8 months from submission in the case of an application for a new chemical entity and 6 months from submission in the case of products that do not contain a new chemical entity. Where an application receives standard review, the target date for FDA action will be 12 months from submission in the case of an application for a new chemical entity and 10 months from submission in the case of products that do not contain a new chemical entity.

Under the centralized procedure in the European Union, the maximum timeframe for the evaluation of a marketing authorization application is 210 days (excluding clock stops, when additional written or oral information is to be provided by the applicant in response to questions asked by the CHMP). Accelerated evaluation might be granted by the CHMP in exceptional cases, when a medicinal product is expected to be of a major public health interest, defined by three cumulative criteria: the seriousness of the disease (e.g. heavy disabling or life-threatening diseases) to be treated; the absence or insufficiency of an appropriate alternative therapeutic approach; and anticipation of high therapeutic benefit. In this circumstance, EMA ensures that the opinion of the CHMP is given within 150 days.

***Biosimilars***

The 2010 healthcare reform legislation created an approval pathway for biosimilars (i.e., follow-on version of innovative biologics). The European regulatory bodies also have authority to approve biosimilars. Because many issues under the U.S. biosimilar legislation remain unresolved (including the scope of exclusivity for new biologics), it is difficult to predict how this legislation will affect us. Our products may face significant competition from biosimilars (as well as traditional generic drugs) in the United States and abroad.

**Employees**

As of December 31, 2013, we had 71 employees worldwide. None of our employees is represented by a labor union or is covered by a collective bargaining agreement. We consider our relationship with our employees to be good.

**Research and Development Costs**

Our research and development costs were $68.5 million, $91.4 million, and $101.7 million for the years ended December 31, 2013, 2012 and 2011, respectively. These costs consist of the cost of our own independent research and development efforts and the costs associated with collaborative research and development and in-licensing arrangements. Research and development costs, including upfront fees and milestones paid to collaboration partners, are expensed as incurred if the underlying products have not received regulatory approval and have no alternative future use.

**Segment and Geographic Information**

We view our operations and manage our business in one operating segment. As of December 31, 2013, we operate only in the United States.

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**Executive Officers**

The following table lists the positions, names and ages of our executive officers as of March 1, 2014:

***Executive Officers***

| | | |
|---|---|---|
| Tuan Ha-Ngoc | 61 | Chief Executive Officer, President and Director and Acting Chief Financial Officer |
| William Slichenmyer | 56 | Chief Medical Officer |
| Michael P. Bailey | 48 | Chief Business Officer |
| Jeno Gyuris | 54 | Chief Scientific Officer |
| Joseph Vittiglio | 42 | Senior Vice President, General Counsel |

***Tuan Ha-Ngoc*** has served as President and Chief Executive Officer of our company and as a member of our Board of Directors since June 2002, and Acting Chief Financial Officer since December 2013. From 1999 to 2002, he was co-founder, President and Chief Executive Officer of deNovis, Inc., an enterprise-scale software development company for the automation of healthcare administrative functions. From 1998 to 1999, Mr. Ha-Ngoc was Corporate Vice President of Strategic Development for Wyeth, following Wyeth s acquisition of Genetics Institute, where Mr. Ha-Ngoc served as Executive Vice President with responsibility for corporate development, commercial operations and European and Japanese operations. Mr. Ha-Ngoc serves on the boards of a number of academic and nonprofit organizations, including the Harvard School of Dental Medicine, the Tufts School of Medicine, the MIT Koch Institute of Integrative Cancer Research and the Biomedical Sciences Career Program. Mr. Ha-Ngoc served on the Board of Directors of ArQule, Inc., from 2002 until 2006, and Human Genome Sciences, Inc. (now part of GlaxoSmithKline) from 2006 until 2012. He holds an M.B.A. from INSEAD and an M.A. in pharmacy from the University of Paris, France.

***William Slichenmyer*** has served as our Chief Medical Officer since September 2009. Prior to joining our company, Dr. Slichenmyer served as Chief Medical Officer at Merrimack Pharmaceuticals from 2007 to September 2009. From 2000 to 2007, Dr. Slichenmyer worked at Pfizer Inc. in roles that included Vice President and Global Head of Oncology Clinical Development as well as positions in medical affairs and regulatory affairs. Dr. Slichenmyer holds a B.A. and M.D. from Case Western Reserve University and an Sc.M. in clinical investigation from Johns Hopkins University. Dr. Slichenmyer intends to leave the Company effective as of April 30, 2014.

***Michael P. Bailey*** has served as our Chief Business Officer since June 2013. Mr. Bailey joined our company in September 2010 and served as our Chief Commercial Officer until June 2013. Prior to joining our company, Mr. Bailey served as Senior Vice President, Business Development and Chief Commercial Officer at Synta Pharmaceuticals from 2008 to September 2010. From 1999 to 2008, Mr. Bailey worked at ImClone, leading their commercial organization, most recently as Senior Vice President of Commercial Operations. Prior to his role at ImClone, Mr. Bailey managed the cardiovascular development portfolio at Genentech, Inc. from 1997 to 1999. Mr. Bailey started his career in the pharmaceutical industry as part of Smith-Kline Beecham s Executive Marketing Development Program, where he held a variety of commercial roles from 1992 to 1997, including sales, strategic planning, and product management. Mr. Bailey received a B.S. in psychology from St. Lawrence University and an M.B.A. in international marketing from the University of Notre Dame Graduate School of Business.

***Jeno Gyuris*** has served as our Chief Scientific Officer since February 2012 and oversees all our research activities. Dr. Gyuris joined our company in January 2003 and served as our Vice President, Molecular Technologies until January 2007, as our Senior Vice President, Drug Discovery from January 2007 to January 2010 and our Senior Vice President, Head of Research from January 2010 to January 2012. From 1993 to 2002, Dr. Gyuris worked at GPC Biotech AG, formerly Mitotix Inc., where he held positions of increasing responsibility, most recently Vice President of Molecular Technologies. Dr. Gyuris has received several research fellowships in Europe and the United States, and is the author of numerous patents and publications. Dr. Gyuris received his Ph.D. from University of Szeged, Szeged, Hungary.

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***Joseph Vittiglio*** has served as our Senior Vice President, General Counsel since January 2013. Mr. Vittiglio joined AVEO in October 2007 and served as our Corporate Counsel until January 2010, as our Vice President, Corporate Counsel from January 2010 until January 2012 and our Vice President, Chief Corporate Counsel from January 2012 to January 2013. Mr. Vittiglio has over 15 years of experience in corporate and securities law, with a particular focus in the biotech and pharmaceutical industries. Prior to joining AVEO, Mr. Vittiglio was the director of corporate legal affairs of Oscient Pharmaceuticals from 2005 through 2007. From 1998 through 2005, Mr. Vittiglio was an attorney at the Boston law firm of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., where his practice focused principally in the life science and technology industries, working on collaborative arrangements, corporate partnering, registered public securities offerings, mergers and acquisitions and venture financings. Mr. Vittiglio serves on the Board of Directors of two nonprofit organizations, the Casa Monte Cassino in Boston and Lynnfield Youth Soccer. Mr. Vittiglio holds a degree in International Relations from Tufts University and graduated from Northeastern University School of Law in 1996.

**Available Information**

We file reports and other information with the SEC as required by the Securities Exchange Act of 1934, as amended, which we refer to as the Exchange Act. You can find, copy and inspect information we file at the SEC s public reference room, which is located at 100 F Street, N.E., Room 1580, Washington, DC 20549. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the SEC s public reference room. You can review our electronically filed reports and other information that we file with the SEC on the SEC s web site at http://www.sec.gov.

We were incorporated under the laws of the State of Delaware on October 19, 2001 as GenPath Pharmaceuticals, Inc. and changed our name to AVEO Pharmaceuticals, Inc. on March 1, 2005. Our principal executive offices are located at 650 East Kendall Street, Cambridge, Massachusetts, 02142, and our telephone number is (617) 299-5000. Our Internet website is http://www.aveooncology.com. We make available free of charge through our website our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Sections 13(a) and 15(d) of the Exchange Act. We also make available, free of charge on our website, the reports filed with the SEC by our executive officers, directors and 10% stockholders pursuant to Section 16 under the Exchange Act. We make these reports available through our website as soon as reasonably practicable after we electronically file such reports with, or furnish such reports to, the SEC, or, in the case of Section 16 reports, as soon as reasonably practicable after copies of those filings are provided to us by the filing persons. In addition, we regularly use our website to post information regarding our business, product development programs and governance, and we encourage investors to use our website, particularly the information in the section entitled For Investors and For Media, as a source of information about us.

The foregoing references to our website are not intended to, nor shall they be deemed to, incorporate information on our website into this report by reference.

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**Item 1A. Risk Factors**

Our business is subject to numerous risks. We caution you that the following important factors, among others, could cause our actual results to differ materially from those expressed in forward-looking statements made by us or on our behalf in this Annual Report on Form 10-K and other filings with the SEC, press releases, communications with investors and oral statements. Any or all of our forward-looking statements in this Annual Report on Form 10-K and in any other public statements we make may turn out to be wrong. They can be affected by inaccurate assumptions we might make or by known or unknown risks and uncertainties. Many factors mentioned in the discussion below will be important in determining future results. Consequently, no forward-looking statement can be guaranteed. Actual future results may differ materially from those anticipated in our forward-looking statements. We undertake no obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise. You are advised, however, to consult any further disclosure we make in our reports filed with the SEC.

**Risks Related to Our Financial Position and Capital Requirements**

***We will require substantial additional financing to achieve our goals, and a failure to obtain this necessary capital when needed could force us to delay, limit, reduce or terminate our research, product development or commercialization efforts.***

Since our inception, most of our resources have been dedicated to the discovery and preclinical and clinical development of our product candidates. We believe that we will continue to expend substantial resources for the foreseeable future developing our preclinical and clinical product candidates. These expenditures will include costs associated with research and development, conducting preclinical and clinical trials, obtaining regulatory approvals and products from third-party manufacturers, as well as marketing and selling any products approved for sale. In addition, other unanticipated costs may arise.

Identifying potential product candidates and conducting preclinical testing and clinical trials is a time-consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain marketing approval and achieve product sales. In addition, our product candidates, if approved, may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of products that we do not expect to be commercially available for many years, if at all.

We believe that our existing cash, cash equivalents, and marketable securities will allow us to fund our operating plan into at least the fourth quarter of 2015.

Because of the numerous risks and uncertainties associated with research, development and commercialization of pharmaceutical products, we are unable to estimate the exact amounts of our working capital requirements. Our future capital requirements depend on many factors, including:

- the number and characteristics of the product candidates we pursue;
- the scope, progress, results and costs of researching and developing our product candidates, and conducting preclinical and clinical trials;
- our ability to establish and maintain strategic partnerships, licensing or other arrangements and the financial terms of such agreements;
- our ability to secure alternative leasing or subleasing arrangements for our underutilized office at 650 East Kendall Street in Cambridge, Massachusetts, and to achieve related cost savings with respect to our current lease obligation;
- the timing of, and the costs involved in, obtaining regulatory approvals for our product candidates;

the costs related to the winding down of the discontinued tivozanib clinical development programs;

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- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims, including litigation costs and the outcome of such litigation;

- whether we realize the full amount of any projected cost savings associated with our strategic restructurings;

- the absence of any breach or event of default under our loan agreement with Hercules or under any other agreements with third parties;

- the outcome of lawsuits against us, including the current lawsuits described below under Part I, Item 3 Legal Proceedings;

- the cost of commercialization activities if any of our product candidates are approved for sale, including marketing, sales and distribution costs;

- the cost of manufacturing our product candidates and any products we successfully commercialize; and

- the timing, receipt and amount of sales of, or royalties on, our future products, if any.

In addition, it is possible that Hercules Technology II, L.P. and Hercules Technology III, L.P., affiliates of Hercules Technology Growth, which we refer to collectively as Hercules, could take the position that the adverse outcome relating to the development and commercialization of tivozanib for RCC, including the FDA informing us that it would not approve our NDA for tivozanib for the treatment of patients with advanced RCC, the related shareholder litigation described under Part I, Item 3 Legal Proceedings and Astellas decision to terminate its collaboration with us, collectively, constitute a material adverse change under our loan and security agreement with Hercules, under which we had $19.4 million in loans outstanding as of December 31, 2013, which could trigger a repayment of all principal and interest due under the loan, unless such event of default is waived by Hercules.

In connection with our June 2013 restructuring and related reduction in workforce, we are reevaluating our facilities requirements for our headquarters and laboratory space at 650 East Kendall Street in Cambridge, Massachusetts. Failure to secure alternative arrangements with respect to our lease commitments could have an adverse effect on our operating results or financial condition.

If our available cash and cash equivalents are insufficient to satisfy our liquidity requirements, or if we identify additional opportunities to do so, we may seek to sell additional equity or debt securities or obtain additional credit facilities. The sale of additional equity or convertible debt securities may result in additional dilution to our stockholders. If we raise additional funds through the issuance of debt securities or preferred stock or through additional credit facilities, these securities and/or the loans under credit facilities could provide for rights senior to those of our common stock and could contain covenants that would restrict our operations. We may require additional capital beyond our currently forecasted amounts. Additional funds may not be available when we need them, on terms that are acceptable to us, or at all. If adequate funds are not available to us on a timely basis, we may be required to:

- delay, limit, reduce or terminate preclinical studies, clinical trials or other research and development activities for one or more of our product candidates; and/or

- delay, limit, reduce or terminate our establishment of sales and marketing capabilities or other activities that may be necessary to commercialize our product candidates, if approved.

***We anticipate that we will continue to incur significant operating costs for the foreseeable future. It is uncertain if we will ever attain profitability in the future, which would depress the market price of our common stock.***

We have incurred net losses in all prior reporting periods, other than for the year ended December 31, 2011, including a net loss of $107.0 million during the twelve months ended December 31, 2013. As of December 31, 2013, we had an accumulated deficit of $427.3 million. To date, we have not commercialized any products or

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generated any revenues from the sale of products, and absent the realization of sufficient revenues from product sales, we may never attain profitability in the future. Our losses have resulted principally from costs incurred in our discovery and development activities. We anticipate that we will continue to incur significant operating costs over the next several years as we seek to develop our preclinical and clinical product candidates.

If we do not successfully develop and obtain regulatory approval for our existing and future pipeline product candidates and effectively manufacture, market and sell any product candidates that are approved, we may never generate product sales, and even if we do generate product sales, we may never achieve or sustain profitability on a quarterly or annual basis. Our failure to become and remain profitable would depress the market price of our common stock and could impair our ability to raise capital, expand our business, diversify our product offerings or continue our operations.

***Raising additional capital may cause dilution to our existing stockholders, and the terms of additional capital may impose restrictions on our operations or require us to relinquish rights to our technologies or product candidates.***

We are likely to seek additional capital through a combination of private and public equity offerings, debt financings, strategic partnerships and alliances and licensing arrangements. Even if we reach a point where we believe we have sufficient funds for our current or future operating plans, we may seek additional capital due to favorable market conditions or strategic considerations. To the extent that we raise additional capital through the sale of equity or convertible debt securities, stockholders will be diluted, and the terms of these new securities may include liquidation or other preferences that adversely affect stockholders rights. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take certain actions, such as incurring debt, making capital expenditures or declaring dividends. If we raise additional funds through strategic partnerships and alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies or product candidates, or grant licenses on terms that are not favorable to us.

***A substantial portion of our future revenues may be dependent upon our existing and future strategic partnerships.***

Our success will depend in significant part on our ability to attract and maintain strategic partners and strategic relationships to support the development and commercialization of our product candidates. As part of our business strategy, we have historically entered, and expect to enter in the future, into strategic partnerships relating to the development and commercialization of product candidates. In these partnerships, we would expect our strategic partner to provide substantial funding, as well as significant capabilities in development, marketing and sales. We may not be successful in entering into any such partnerships on favorable terms, if at all. Even if we do succeed in securing such partnerships, we may not be able to maintain them if, for example, development or approval of a product candidate is delayed or sales of an approved drug are disappointing.

If any of our strategic partners were to terminate their agreements with us, fail to meet their obligations or otherwise decrease their level of efforts, allocation of resources or other commitments under these agreements with us, our future revenues could be negatively impacted and the development and commercialization of product candidates could be interrupted.

In addition, if some or any of the development, regulatory and commercial milestones are not achieved or if certain net sales thresholds are not achieved, as set forth in the respective agreements, we will not fully realize the expected economic benefits of these partnership agreements. Further, the achievement of certain of the milestones under our partnership agreements will depend on factors that are outside of our control and most milestones are not expected to be achieved for several years, if at all. Any failure to successfully maintain our strategic partnership agreements could materially and adversely affect our ability to generate revenues. For

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example, in February 2014, Astellas gave us notice of its exercise of its right to terminate our collaboration agreement, for strategic reasons, based on the clinical status of tivozanib. As a result, we will not realize any future revenues from our partnership with Astellas.

Furthermore, any delay in entering into strategic partnerships could delay the development and commercialization of our product candidates and reduce their competitiveness, even if they reach the market. Any such delay related to our strategic partnerships could adversely affect our business.

***We and certain of our present and former officers and directors have been named as defendants in a consolidated class action lawsuit that could result in substantial costs and divert management s attention.***

We, and certain of our present and former officers and directors, were named as defendants in a consolidated class action lawsuit initiated in 2013 that generally alleges that we and certain of our present and former officers and directors violated Sections 10(b) and/or 20(a) of the Securities Exchange Act of 1934 and Rule 10b-5 promulgated thereunder by making allegedly false and/or misleading statements concerning the phase 3 trial design and results for our TIVO-1 study in an effort to lead investors to believe that the drug would receive approval from the FDA. The complaints seek unspecified damages, interest, attorneys fees, and other costs. Additionally, we received a subpoena from the SEC requesting documents and information concerning tivozanib, including related communications with the FDA, investors and others. Moreover, a plaintiff has filed a derivative complaint allegedly on our behalf, naming us, as a nominal defendant and also naming as defendants present and former members of the our board of directors, alleging breach of fiduciary duty and abuse of control between January 2012 and May 2013 with respect to allegedly misleading statements and omissions regarding tivozanib. The derivative complaint seeks, among other relief, unspecified damages, costs and expenses, including attorneys fees, an order requiring us to implement certain corporate governance reforms, restitution from the defendants and such other relief as the court might find just and proper.

We intend to engage in a vigorous defense of these lawsuits and are fully cooperating with the SEC regarding its fact-finding inquiry. However, we are unable to predict the outcome of these matters at this time. Moreover, any conclusion of these matters in a manner adverse to us would have a material adverse effect on our financial condition and business. For example, we could incur substantial costs not covered by our directors and officers liability insurance, suffer a significant adverse impact on our reputation and divert management s attention and resources from other priorities, including the execution of business plans and strategies that are important to our ability to grow our business, any of which could have a material adverse effect on our business. In addition, any of these matters could require payments that are not covered by, or exceed the limits of, our available directors and officers liability insurance, which could have a material adverse effect on our operating results or financial condition.

Additional similar lawsuits might be filed. For example, we are aware of a potential plaintiff, a purported purchaser of the Company s common stock, seeking to file a derivative complaint allegedly on behalf of the Company, which would name as defendants the Company and present and former members of the Company s board of directors. We intend to vigorously defend this lawsuit, if filed. However, we unable to predict the outcome of this potential lawsuit at this time.

***Our business is in the preclinical and early clinical testing stage, which may make it difficult for you to evaluate the success of our business to date and to assess our future viability.***

All of our product candidates are in preclinical development and clinical testing. We have not yet demonstrated our ability to obtain marketing approvals, manufacture a commercial scale medicine, or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful commercialization. Typically, it takes about ten to 15 years to develop one new medicine from the time it is discovered to when it is available for treating patients. Consequently, any predictions you make about our future success or viability may not be as accurate as they could be if we had a longer operating history.

In addition, as preclinical and early clinical testing stage business, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown factors. To be profitable, we will need to

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transition from a company with a research focus to a company capable of supporting commercial activities. We may not be successful in such a transition.

**Risks Related to Development, Clinical Testing and Regulatory Approval of Our Drug Candidates**

***All of our product candidates are still in preclinical and clinical development. Preclinical testing and clinical trials of our product candidates may not be successful, or may not result in approval by the U.S. Food and Drug Administration. If we are unable to obtain marketing approval or commercialize our product candidates, or experience significant delays in doing so, our business will be materially harmed.***

Development of our product candidates, all of which are still in preclinical and clinical development, is at an early stage and we may not successfully develop a drug candidate that becomes a commercially viable drug. Our ability to generate product revenues, which we do not expect for many years, if ever, will depend heavily on the successful development and eventual commercialization of our product candidates. This process can take many years to complete, requiring the expenditure of substantial resources with highly uncertain results and a high risk of failure. Moreover, positive data from preclinical studies and clinical trials of our product candidates may not be predictive of results in ongoing or subsequent preclinical studies and clinical trials and may not be predictive of success in gaining any regulatory or marketing approvals necessary for commercialization.

The regulatory process can vary substantially based upon a variety of factors, including the type, complexity and novelty of the product candidates involved. If any of our product candidates are not shown to be safe and effective in humans through clinical trials, we and/or our strategic partners will not be able to obtain regulatory approval for such product candidate, and the resulting delays in developing other product candidates and conducting related preclinical studies and clinical trials would have a material adverse effect on our business, financial condition and results of operations.

The success of our product candidates will depend on several factors, many of which are beyond our control, including the following:

- successful enrollment in, and completion of, clinical trials and preclinical studies;
- our ability to demonstrate to the satisfaction of the FDA, and equivalent foreign regulatory agencies, the safety, efficacy and clinically meaningful benefit of our product candidates through completed, ongoing and any future clinical and non-clinical trials;
- our ability to obtain additional funding when needed;
- our ability to maintain collaborations with our strategic partners;
- achieving and maintaining compliance with all regulatory requirements applicable to pharmaceutical products;
- the prevalence and severity of adverse side effects;
- the ability of our third-party manufacturers to manufacture clinical trial and commercial supplies and to develop, validate and maintain commercially viable manufacturing processes that are compliant with cGMP;
- the availability, relative cost, safety and efficacy of alternative and competing treatments;

acceptance of the product by patients, the medical community and third-party payors;

launching commercial sales of the product, whether alone or in collaboration with others; and

our ability to avoid third-party patent interference or patent infringement claims;

If we do not achieve one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully commercialize our product candidates, which would materially harm our business.

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***Any failure or delay in completing clinical trials for our product candidates, or unfavorable results from such trials, may prevent us from obtaining regulatory approval or commercializing product candidates on a timely basis, or at all, which would require us to incur additional costs and delay receipt of any product revenue.***

We cannot predict whether we will encounter problems with any of our planned clinical trials that will cause us or regulatory authorities to delay, suspend or terminate those clinical trials. The completion of clinical trials for product candidates may be delayed, suspended or terminated for many reasons, including:

- delays in patient enrollment, and variability in the number and types of patients available for clinical trials, or high drop-out rates of patients in our clinical trials;
- our inability to obtain additional funding when needed;
- delays or failure in reaching agreement on acceptable clinical trial contracts or clinical trial protocols with prospective sites;
- failure of our third-party contractors or our investigators to comply with regulatory requirements or otherwise meet their contractual obligations in a timely manner;
- delays or failure in obtaining the necessary approvals from regulators or institutional review boards in order to commence a clinical trial at a prospective trial site, or their suspension or termination of a clinical trial once commenced;
- our inability to manufacture or obtain from third parties materials sufficient to complete our preclinical studies and clinical trials;
- difficulty in maintaining contact with patients after treatment, resulting in incomplete data;
- poor effectiveness of our product candidates during clinical trials, including without limitation, a failure to meet study objectives or obtain the requisite level of statistical significance imposed by the FDA or other regulatory agencies;
- safety issues, including serious adverse events associated with our product candidates;
- governmental or regulatory delays and changes in regulatory requirements, policy and guidelines; or
- varying interpretations of data by the FDA and similar foreign regulatory agencies.

Clinical trials often require the enrollment of large numbers of patients, and suitable patients may be difficult to identify and recruit. Our ability to enroll sufficient numbers of patients in our clinical trials depends on many factors, including the size of the patient population, the nature of the protocol, the proximity of patients to clinical sites, the eligibility criteria for the trial, competing clinical trials, the availability of approved effective drugs and the perception of the efficacy and safety of our product candidates. We may experience delays or difficulties in enrolling patients in our current and planned trials. If we fail to enroll and maintain the number of patients for which the clinical trial was designed, the statistical power of that clinical trial may be reduced which would make it harder to demonstrate that the product candidate being tested in such clinical trial is safe and effective. Additionally, we may not be able to enroll a sufficient number of qualified patients in a timely or cost-effective manner.

We, the FDA, other applicable regulatory authorities or institutional review boards may suspend or terminate clinical trials of a product candidate at any time if we or they believe the patients participating in such clinical trials are being exposed to unacceptable health risks or for other reasons.

Significant clinical trial delays could allow our competitors to obtain marketing approval before we do or shorten the patent protection period during which we may have the exclusive right to commercialize our product candidates. Our product development costs also will increase if we experience delays in completing clinical trials. In addition, it is impossible to predict whether legislative changes will be enacted, or whether FDA regulations, guidance or interpretations will be changed, or what the impact of such changes, if any, may be. If we experience any such problems, we may not have the financial resources to continue development of the product candidate that is affected or the development of any of our other product candidates.

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***If we are not successful in discovering, developing and commercializing additional product candidates, our ability to expand our business and achieve our strategic objectives would be impaired.***

A key element of our strategy is to discover, develop and commercialize novel antibody-based products. We are seeking to do so through our internal research programs and intend to explore strategic partnerships for such development. Research programs to identify product candidates require substantial technical, financial and human resources, whether or not any product candidates are ultimately identified. Our research programs may initially show promise in identifying potential product candidates, yet may fail to yield product candidates for clinical development for many reasons, including the following:

- the research methodology used may not be successful in identifying potential product candidates;
- competitors may develop alternatives that render our product candidates obsolete;
- a product candidate may upon further study be shown to have harmful side effects or other characteristics that indicate it is unlikely to be effective or otherwise does not meet applicable regulatory criteria;
- a product candidate may not be capable of being produced in commercial quantities at an acceptable cost, or at all; and
- a product candidate may not be accepted as safe and effective by patients, the medical community or third-party payors.

***Even if we receive regulatory approval for any of our product candidates, we will be subject to ongoing FDA requirements and continued regulatory review, which may result in significant additional expense. Additionally, our product candidates, if approved, could be subject to labeling and other restrictions, post-approval requirements and market withdrawal and we may be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with our products.***

Any regulatory approvals that we or our strategic partners receive for our product candidates may also be subject to limitations on the approved indicated uses for which the product may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing requirements and testing, including post-approval clinical trials, surveillance to monitor the safety and efficacy of the product candidate, and implementation of a risk evaluation and mitigation strategy. In addition, if the FDA approves any of our product candidates, the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion and recordkeeping for the product will be subject to extensive and ongoing regulatory requirements. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with cGMP and good clinical practices, or GCP, for any clinical trials that we conduct post-approval. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with our third-party manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in, among other things:

- restrictions on the marketing or manufacturing of the product, withdrawal of the product from the market, or voluntary or mandatory product recalls;
- fines, warning letters or holds on clinical trials;
- refusal by the FDA to approve pending applications or supplements to approved applications filed by us or our strategic partners, or suspension or revocation of product license approvals;

product seizure or detention, or refusal to permit the import or export of products; and

injunctions or the imposition of civil or criminal penalties.

The FDA s policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. We cannot predict the likelihood, nature or extent of

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government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability, which would adversely affect our business.

***Failure to obtain regulatory approval in jurisdictions outside the United States will prevent us from marketing our products abroad.***

We intend to market our products, if approved, in international markets, which will require separate regulatory approvals and compliance with numerous and varying regulatory requirements. The approval procedures vary among countries and may involve requirements for additional testing, and the time required to obtain approval may differ from that required to obtain FDA approval. In addition, in many countries outside the United States, a product candidate must be approved for reimbursement before it can be approved for sale in that country. In some cases, the price that we intend to charge for our product is also subject to approval. Approval by the FDA does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one foreign regulatory authority does not ensure approval by regulatory authorities in other foreign countries or jurisdictions or by the FDA. The foreign regulatory approval process may include all of the risks associated with obtaining FDA approval. We may not obtain foreign regulatory approvals on a timely basis, if at all. We and our strategic partners may not be able to file for regulatory approvals and may not receive necessary approvals to commercialize our products in any market.

***If we are unable to successfully develop companion diagnostics for certain of our therapeutic product candidates, or experience significant delays in doing so, we may not realize the full commercial potential of these therapeutics.***

A component of our business strategy may be to develop companion diagnostics for some of our therapeutic product candidates. There has been limited success to date industry-wide in developing companion diagnostics. To be successful, we will need to address a number of scientific, technical, regulatory and logistical challenges. We have limited experience in the development of diagnostics and may not be successful in developing appropriate diagnostics to pair with any of our therapeutic product candidates that receive marketing approval. The FDA and similar regulatory authorities outside the United States are generally expected to regulate companion diagnostics as medical devices. In each case, companion diagnostics require separate regulatory approval prior to commercialization. Given our limited experience in developing diagnostics, we expect to rely in part on third parties for their design, development and manufacture. If we, or any third parties that we engage to assist us, are unable to successfully develop companion diagnostics for our therapeutic product candidates, or experience delays in doing so, the development of our therapeutic product candidates may be adversely affected, our therapeutic product candidates may not receive marketing approval and we may not realize the full commercial potential of any therapeutics that receive marketing approval. As a result, our business would be harmed, possibly materially.

**Risks Related to Our Business and Industry**

***We face substantial competition, which may result in others discovering, developing or commercializing products before, or more successfully, than we do.***

Our future success depends on our ability to demonstrate and maintain a competitive advantage with respect to the design, development and commercialization of product candidates. Our objective is to design, develop and commercialize new products with superior efficacy, convenience, tolerability and safety. We expect any product candidate that we commercialize with our strategic partners or on our own will compete with existing, market-leading products.

Many of our potential competitors have substantially greater financial, technical and personnel resources than we have and several are already marketing products to treat the same indications, and having the same

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biological targets, as the product candidates we are developing, including with respect to cachexia. In addition, many of these competitors have significantly greater commercial infrastructures than we have. We will not be able to compete successfully unless we effectively:

- design and develop products that are superior to other products in the market in terms of, among other things, both safety and efficacy;
- attract qualified scientific, medical, sales and marketing and commercial personnel;
- obtain patent and/or other proprietary protection for our processes and product candidates;
- obtain required regulatory approvals;
- obtain favorable reimbursement, formulary and guideline status; and
- collaborate with others in the design, development and commercialization of new products.

Established competitors may invest heavily to quickly discover and develop novel compounds that could make our product candidates obsolete. In addition, any new product that competes with an approved product must demonstrate compelling advantages in efficacy, convenience, tolerability and safety in order to obtain approval, to overcome price competition and to be commercially successful. If we are not able to compete effectively against our current and future competitors, our business will not grow and our financial condition and operations will suffer.

***We may not achieve research, development and commercialization goals in the time frames that we publicly estimate, which could have an adverse impact on our business and could cause our stock price to decline.***

We set goals, and make public statements regarding our expected timing for certain accomplishments, such as the commencement and completion of preclinical studies, initiation and completion of clinical trials, filing and approval of regulatory applications for our product candidates and other developments and milestones under our research and development programs. The actual timing of these events can vary significantly due to a number of factors, including, without limitation, delays or failures in our and our current and potential future collaborators preclinical studies or clinical trials, the amount of time, effort and resources committed to our programs by us and our current and potential future collaborators and the uncertainties inherent in the regulatory approval process. As a result, there can be no assurance that our or our current and potential future collaborators preclinical studies and clinical trials will advance or be completed in the time frames we expect or announce, that we or our current and potential future collaborators will make regulatory submissions or receive regulatory approvals as planned or that we or our current and potential future collaborators will be able to adhere to our current schedule for the achievement of key milestones under any of our programs. If we or any collaborators fail to achieve one or more of the milestones described above as planned, our business could be materially adversely affected and the price of our common stock could decline.

***Because we have limited experience in developing and commercializing pharmaceutical products, there is a limited amount of information about us upon which you can evaluate our business and prospects.***

Although certain of our individual employees may have extensive experience in developing and commercializing pharmaceutical products, as an organization we have limited experience in developing and commercializing pharmaceutical products and have not yet demonstrated an ability to successfully overcome many of the risks and uncertainties frequently encountered by companies in new and rapidly evolving fields, particularly in the biopharmaceutical area. For example, to execute our business plan, we will need to successfully:

- execute product development activities;

obtain required regulatory approvals for the development and commercialization of our product candidates;

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build and maintain a strong intellectual property portfolio;

build and maintain robust sales, distribution, reimbursement and marketing capabilities;

obtain reimbursement and gain market acceptance for our products;

develop and maintain successful strategic relationships and partnerships; and

manage our spending as costs and expenses increase due to clinical trials, regulatory approvals and commercialization.

If we are unsuccessful in accomplishing these objectives, we may not be able to develop product candidates, raise capital, expand our business or continue our operations.

***If we fail to attract and keep senior management and key scientific personnel, we may be unable to successfully develop our product candidates, conduct our clinical trials and commercialize our product candidates.***

Our success depends in part on our continued ability to attract, retain and motivate highly qualified management, clinical and scientific personnel. We are highly dependent upon our senior management, as well as others on our management team. The loss of services of any of these individuals or one or more of our other members of management could delay or prevent the successful development of our product pipeline, the completion of our planned clinical trials or the commercialization of our product candidates. We do not carry key person insurance covering any members of our senior management. Our employment arrangements with all of these individuals are at will, meaning they or we can terminate their service at any time.

We face intense competition for qualified individuals from numerous pharmaceutical and biotechnology companies, universities, governmental entities and other research institutions, many of which have substantially greater resources with which to reward qualified individuals than we do. We may face challenges in retaining our existing senior management and key employees and recruiting new employees to join our company as our business needs change. We may be unable to attract and retain suitably qualified individuals, and our failure to do so could have an adverse effect on our ability to implement our future business plans.

***Our employees may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements and insider trading.***

We are exposed to the risk of employee fraud or other misconduct. Misconduct by employees could include intentional failures to comply with FDA regulations, to provide accurate information to the FDA, to comply with manufacturing standards we have established, to comply with federal and state health-care fraud and abuse laws and regulations, to report financial information or data accurately or to disclose unauthorized activities to us. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Employee misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. We have adopted a code of business conduct and ethics, but it is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of significant fines or other sanctions.

In addition, during the course of our operations, our directors, executives and employees may have access to material, nonpublic information regarding our business, our results of operations or potential transactions we are

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considering. Despite the adoption of an Insider Trading Policy, we may not be able to prevent a director, executive or employee from trading in our common stock on the basis of, or while having access to, material, nonpublic information. If a director, executive or employee was to be investigated, or an action was to be brought against a director, executive or employee for insider trading, it could have a negative impact on our reputation and our stock price. Such a claim, with or without merit, could also result in substantial expenditures of time and money, and divert attention of our management team from other tasks important to the success of our business.

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

As we seek to advance our product candidates through clinical trials and commercialization, we may need to expand our development, regulatory, manufacturing, marketing and sales capabilities or contract with third parties to provide these capabilities for us. Our future financial performance and our ability to commercialize our product candidates and to compete effectively will depend, in part, on our ability to manage any future growth effectively. To that end, we must be able to manage our development efforts and clinical trials effectively and hire, train and integrate additional management, administrative and sales and marketing personnel. We may not be able to accomplish these tasks, and our failure to accomplish any of them could prevent us from successfully growing our company.

***If product liability lawsuits are brought against us, we may incur substantial liabilities and may be required to limit commercialization of our product candidates.***

We face an inherent risk of product liability as a result of the clinical testing of our product candidates and will face an even greater risk if we commercialize any products. For example, we may be sued if any product we develop allegedly causes injury or is found to be otherwise unsuitable during product testing, manufacturing, marketing or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability, and a breach of warranties. Claims could also be asserted under state consumer protection acts. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit commercialization of our product candidates. Even successful defense could require significant financial and management resources. Regardless of the merits or eventual outcome, product liability claims may result in:

decreased demand for our product candidates or products that we may develop;

injury to our reputation;

withdrawal of clinical trial participants;

costs to defend the related litigation;

diversion of management s time and our resources;

substantial monetary awards to trial participants or patients;

product recalls, withdrawals or labeling, marketing or promotional restrictions;

loss of revenue;

the inability to commercialize our product candidates; and

a decline in our stock price.

Our inability to obtain and retain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of products we develop. We currently carry product liability insurance covering our clinical studies in the amount of $20 million in the aggregate. Although we maintain such insurance, any claim that may be brought against us could result in a court judgment or settlement in an amount that is not covered, in whole or in part, by our insurance or that is in excess of the limits of our insurance coverage. Our insurance policies also have various exclusions, and we may be

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subject to a product liability claim for which we have no coverage. We will have to pay any amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient capital to pay such amounts.

***We may incur significant costs complying with environmental laws and regulations, and failure to comply with these laws and regulations could expose us to significant liabilities.***

We use hazardous chemicals and radioactive and biological materials in certain aspects of our business and are subject to a variety of federal, state and local laws and regulations governing the use, generation, manufacture, distribution, storage, handling, treatment and disposal of these materials. Although we believe our safety procedures for handling and disposing of these materials and waste products comply with these laws and regulations, we cannot eliminate the risk of accidental injury or contamination from the use, manufacture, distribution, storage, handling, treatment or disposal of hazardous materials. In the event of contamination or injury, or failure to comply with environmental, occupational health and safety and export control laws and regulations, we could be held liable for any resulting damages and any such liability could exceed our assets and resources. We do not maintain insurance for any environmental liability or toxic tort claims that may be asserted against us.

**Risks Related to Commercialization of Our Product Candidates**

***We have limited sales, marketing, reimbursement and distribution experience and we will have to invest significant resources to develop those capabilities.***

We have limited sales, marketing, reimbursement and distribution experience. To develop these capabilities, we will have to invest significant amounts of financial and management resources, some of which will be committed prior to any confirmation that any of our product candidates will be approved for commercial sale. We could face a number of additional risks in developing our commercial infrastructure, including:

- we may not be able to attract and build an effective marketing or sales force;
- the cost of establishing a marketing or sales force may not be justifiable in light of the revenues generated by any particular product; and
- our direct sales and marketing efforts may not be successful.

Furthermore, we may elect in the future to utilize strategic partners or contract sales forces to assist in the commercialization of other products, if approved. We may have limited or no control over the sales, marketing and distribution activities of these third parties. Our future revenues may depend heavily on the success of the efforts of these third parties.

***Our commercial success depends upon attaining significant market acceptance of our product candidates, if approved, including among physicians, patients, healthcare payors and, in the cancer market, acceptance by the major operators of cancer clinics.***

Even if one of our product candidates obtains regulatory approval, the product may not gain market acceptance among physicians, healthcare payors, patients and the medical community. Market acceptance of any products for which we receive approval depends on a number of factors, including:

- the efficacy and safety of the product candidate, as demonstrated in clinical trials;
- the clinical indications for which the drug is approved;

acceptance by physicians, major operators of cancer clinics, healthcare payors, physician networks and patients of the drug as a safe and effective treatment;

the potential and perceived advantages over alternative treatments;

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the cost of treatment in relation to alternative treatments;

the availability of adequate reimbursement and pricing by third parties and government authorities;

the continued projected growth of oncology drug markets;

relative convenience and ease of administration;

the prevalence and severity of adverse side effects; and

the effectiveness of our sales and marketing efforts.

If our approved drugs fail to achieve market acceptance, we would not be able to generate significant revenue.

***Reimbursement may be limited or unavailable in certain market segments for our product candidates, which could make it difficult for us to sell any approved products profitably.***

Market acceptance and sales of our product candidates will depend significantly on the availability of adequate coverage and reimbursement from third-party payors for any of our product candidates and may be affected by existing and future healthcare reform measures. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which drugs they will pay for and establish reimbursement levels. Reimbursement by a third-party payor may depend upon a number of factors, including the third-party payor s determination that use of a product is:

a covered benefit under its health plan;

safe, effective and medically necessary;

appropriate for the specific patient;

cost-effective; and

neither experimental nor investigational.

Obtaining coverage and reimbursement approval for a product from a government or other third-party payor is a time-consuming and costly process that could require us to provide supporting scientific, clinical and cost-effectiveness data for the use of our products to the payor. We may not be able to provide data sufficient to gain acceptance with respect to coverage and reimbursement. We cannot be sure that coverage or adequate reimbursement will be available for any of our product candidates. Also, we cannot be sure that reimbursement amounts will not reduce the demand for, or the price of, our products. If reimbursement is not available or is available only to limited levels, we may not be able to commercialize certain of our products.

In both the United States and certain foreign jurisdictions, there have been a number of legislative and regulatory changes to the healthcare system that could impact our ability to sell our products profitably. In particular, the Medicare Modernization Act of 2003 revised the payment methodology for many products under Medicare. This has resulted in lower rates of reimbursement. There have been numerous other federal and state initiatives designed to reduce payment for pharmaceuticals.

As a result of legislative proposals and the trend towards managed healthcare in the United States, third-party payors are increasingly attempting to contain healthcare costs by limiting both coverage and the level of reimbursement of new drugs. They may also refuse to provide any coverage of approved products for medical indications other than those for which the FDA has granted market approvals. As a result, significant uncertainty exists as to whether and how much third-party payors will reimburse patients for their use of newly approved drugs, which in turn will put pressure on the pricing of drugs. We expect to experience pricing pressures in connection with the sale of any products we may develop or commercialize due to the trend toward managed healthcare, the increasing influence of health maintenance organizations, additional legislative proposals, as well

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as country, regional, or local healthcare budget limitations. Any products that we may develop or commercialize may not be considered cost-effective, and coverage and reimbursement may not be available or sufficient to allow us to sell our products on a profitable basis.

***Foreign governments may impose price controls, which may adversely affect our future profitability.***

We and our strategic partners intend to seek approval to market our future products in both the United States and in foreign jurisdictions. If approval is obtained in one or more foreign jurisdictions, we and our strategic partners will be subject to rules and regulations in those jurisdictions relating to our product. In some foreign countries, particularly in countries in the European Union, the pricing of prescription pharmaceuticals and biologics is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product candidate. If reimbursement of our future products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, we may be unable to achieve or sustain profitability.

***Healthcare reform measures could hinder or prevent our product candidates commercial success.***

The U.S. government and other governments have shown significant interest in pursuing healthcare reform. Any government-adopted reform measures could adversely impact the pricing of healthcare products and services in the U.S. or internationally and the amount of reimbursement available from governmental agencies or other third-party payors. The continuing efforts of the U.S. and foreign governments, insurance companies, managed care organizations and other payors of healthcare services to contain or reduce healthcare costs may adversely affect our ability to set prices which we believe are fair for any products we may develop and commercialize, and our ability to generate revenues and achieve and maintain profitability.

New laws, regulations and judicial decisions, or new interpretations of existing laws, regulations and decisions, that relate to healthcare availability, methods of delivery or payment for products and services, or sales, marketing or pricing, may limit our potential revenue, and we may need to revise our research and development programs. The pricing and reimbursement environment may change in the future and become more challenging due to several reasons, including policies advanced by the U.S. government, new healthcare legislation or fiscal challenges faced by government health administration authorities. Specifically, in both the U.S. and some foreign jurisdictions, there have been a number of legislative and regulatory proposals and initiatives to change the healthcare system in ways that could affect our ability to sell any products we may develop and commercialize profitably. Some of these proposed and implemented reforms could result in reduced reimbursement rates for our potential products, which would adversely affect our business strategy, operations and financial results.

For example, in March 2010, President Obama signed into law a legislative overhaul of the U.S. healthcare system, known as the Patient Protection and Affordable Care Act of 2010, as amended by the Healthcare and Education Affordability Reconciliation Act of 2010, or the PPACA, which may have far reaching consequences for life science companies like us. As a result of this legislation, substantial changes could be made to the current system for paying for healthcare in the United States, including changes made in order to extend medical benefits to those who currently lack insurance coverage. Extending coverage to a large population could substantially change the structure of the health insurance system and the methodology for reimbursing medical services, drugs and devices. These structural changes could entail modifications to the existing system of private payors and government programs, such as Medicare and Medicaid, creation of a government-sponsored healthcare insurance source, or some combination of both, as well as other changes. Restructuring the coverage of medical care in the United States could impact the reimbursement for prescribed drugs, biopharmaceuticals, medical devices, or our product candidates. If reimbursement for our approved product candidates, if any, is substantially less that we expect in the future, or rebate obligations associated with them are substantially increased, our business could be materially and adversely impacted.

Further federal and state proposals and healthcare reforms could limit the prices that can be charged for the product candidates that we develop and may further limit our commercial opportunity. Our results of operations

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could be materially adversely affected by the PPACA, by Medicare prescription drug coverage legislation, by the possible effect of such current or future legislation on amounts that private insurers will pay and by other healthcare reforms that may be enacted or adopted in the future.

**Risks Related to Our Dependence on Third Parties**

***We may not be successful in establishing and maintaining additional strategic partnerships, which could adversely affect our ability to develop and commercialize products.***

In addition to our current strategic partnerships, a part of our strategy is to enter into additional strategic partnerships in the future, including alliances with major biotechnology or pharmaceutical companies. We face significant competition in seeking appropriate strategic partners and the negotiation process is time-consuming and complex. Moreover, we may not be successful in our efforts to establish a strategic partnership or other alternative arrangements for any product candidates and programs because our research and development pipeline may be insufficient, our product candidates and programs may be deemed to be at too early of a stage of development for collaborative effort and/or third parties may not view our product candidates and programs as having the requisite potential to demonstrate safety and efficacy. Even if we are successful in our efforts to establish new strategic partnerships, the terms that we agree upon may not be favorable to us and we may not be able to maintain such strategic partnerships if, for example, development or approval of a product candidate is delayed or sales of an approved product are disappointing. Any delay in entering into new strategic partnership agreements related to our product candidates could have an adverse effect on our business or our operating plan, including delaying the development and commercialization of our product candidates.

Moreover, if we fail to establish and maintain additional strategic partnerships related to our product candidates:

- the development of certain of our current or future product candidates may be terminated or delayed;
- our cash expenditures related to development of certain of our current or future product candidates would increase significantly and we may need to seek additional financing;
- we may be required to hire additional employees or otherwise develop expertise, such as sales and marketing expertise, for which we have not budgeted; and
- we will bear all of the risk related to the development of any such product candidates.

In addition, if we fail to establish and maintain additional strategic partnerships involving our Human Response Platform, we would not realize its potential as a means of identifying and validating targets for new cancer therapies in collaboration with strategic partners or of identifying biomarkers to aid in the development of our strategic partners drug candidates.

***If any of our current or future strategic partners fails to perform its obligations or terminates its agreement with us, the development and commercialization of the product candidates under such agreement could be delayed or terminated and our business could be substantially harmed.***

As part of our business strategy, we plan to enter into strategic partnerships in the future. If any current or future strategic partners do not devote sufficient time and resources to its arrangements with us, we may not realize the potential commercial benefits of the arrangement, and our results of operations may be adversely affected. In addition, if any strategic partner were to breach or terminate its arrangements with us, the development and commercialization of the affected product candidate could be delayed, curtailed or terminated because we may not have sufficient financial resources or capabilities to continue development and commercialization of the product candidate on its own, and we may find it difficult to attract a new alliance partner for such product candidate.

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Much of the potential revenue from any strategic partnership we may enter into in the future will likely consist of contingent payments, such as royalties payable on sales of any successfully developed drugs. Any such contingent revenue will depend upon our, and our strategic partner s ability to successfully develop, introduce, market and sell new drugs. In some cases, we will not be involved in these processes, and we will depend entirely on our strategic partners. Any of our future strategic partners may fail to develop or effectively commercialize these drugs because it:

- decides not to devote the necessary resources because of internal constraints, such as limited personnel with the requisite scientific expertise, limited cash resources or specialized equipment limitations, or the belief that other product candidates may have a higher likelihood of obtaining regulatory approval or may potentially generate a greater return on investment;
- does not have sufficient resources necessary to carry the product candidate through clinical development, regulatory approval and commercialization; or
- cannot obtain the necessary regulatory approvals.

If one or more of our strategic partners fails to develop or effectively commercialize product candidates for any of the foregoing reasons, we may not be able to replace the strategic partner with another partner to develop and commercialize a product candidate under the terms of the strategic partnership. We may also be unable to obtain, on terms acceptable to us, a license from such strategic partner to any of its intellectual property that may be necessary or useful for us to continue to develop and commercialize a product candidate. Any of these events could have a material adverse effect on our business, results of operations and our ability to achieve future profitability, and could cause our stock price to decline.

***We rely on third-party manufacturers to produce our preclinical and clinical drug supplies and we intend to rely on third parties to produce commercial supplies of any approved product candidates. Any failure by a third-party manufacturer to produce supplies for us may delay or impair our ability to complete our clinical trials or commercialize our product candidates.***

We have relied upon third-party manufacturers for the manufacture of our product candidates for preclinical and clinical testing purposes and intend to continue to do so in the future. If we are unable to arrange for third-party manufacturing sources, or to do so on commercially reasonable terms, we may not be able to complete development of such other product candidates or market them.

Reliance on third-party manufacturers entails risks to which we would not be subject if we manufactured product candidates ourselves, including reliance on the third party for regulatory compliance and quality assurance, the possibility of breach of the manufacturing agreement by the third party because of factors beyond our control (including a failure to synthesize and manufacture our product candidates in accordance with our product specifications), failure of the third party to accept orders for supply of drug substance or drug product and the possibility of termination or nonrenewal of the agreement by the third-party, based on its own business priorities, at a time that is costly or damaging to us. In addition, the FDA and other regulatory authorities require that our product candidates be manufactured according to cGMP and similar foreign standards. Any failure by our third-party manufacturers to comply with cGMP or failure to scale-up manufacturing processes as needed, including any failure to deliver sufficient quantities of product candidates in a timely manner, could lead to a delay in, or failure to obtain, regulatory approval of any of our product candidates. In addition, such failure could be the basis for action by the FDA to withdraw approvals for product candidates previously granted to us and for other regulatory action, including recall or seizure, fines, imposition of operating restrictions, total or partial suspension of production or injunctions.

We rely on our manufacturers to purchase from third-party suppliers the materials necessary to produce our product candidates for our clinical studies. There are a small number of suppliers for certain capital equipment and raw materials that we use to manufacture our drugs. Such suppliers may not sell this capital equipment or these raw materials to our manufacturers at the times we need them or on commercially reasonable terms. We do not have any control over the process or timing of the acquisition of this capital equipment or these raw materials by our

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manufacturers. Moreover, we currently do not have any agreements for the commercial production of these raw materials. Any significant delay in the supply of a product candidate or the raw material components thereof for an ongoing clinical trial due to the need to replace a third-party manufacturer could considerably delay completion of our clinical studies, product testing and potential regulatory approval of our product candidates. If our manufacturers or we are unable to purchase these raw materials after regulatory approval has been obtained for our product candidates, the commercial launch of our product candidates would be delayed or there would be a shortage in supply, which would impair our ability to generate revenues from the sale of our product candidates.

Because of the complex nature of many of our early stage compounds and product candidates, our manufacturers may not be able to manufacture such compounds and product candidates at a cost or in quantities or in a timely manner necessary to develop and commercialize related products. If we successfully commercialize any of our drugs, we may be required to establish or access large-scale commercial manufacturing capabilities. In addition, as our drug development pipeline increases and matures, we will have a greater need for clinical trial and commercial manufacturing capacity. We do not own or operate manufacturing facilities for the production of clinical or commercial quantities of our product candidates and we currently have no plans to build our own clinical or commercial scale manufacturing capabilities. To meet our projected needs for commercial manufacturing, third parties with whom we currently work will need to increase their scale of production or we will need to secure alternate suppliers.

***We rely on third parties to conduct preclinical and clinical trials for our product candidates, and if they do not properly and successfully perform their obligations to us, we may not be able to obtain regulatory approvals for our product candidates.***

We, in consultation with our strategic partners, design the clinical trials for our product candidates, but we rely on contract research organizations and other third parties to assist us in managing, monitoring and otherwise carrying out many of these trials. We compete with larger companies for the resources of these third parties.

Although we rely on these third parties to conduct many of our clinical trials, we are responsible for ensuring that each of our clinical trials is conducted in accordance with its general investigational plan and protocol. Moreover, the FDA and foreign regulatory agencies require us to comply with regulations and standards, commonly referred to as good clinical practices, for designing, conducting, monitoring, recording, analyzing, and reporting the results of clinical trials to assure that the data and results are credible and accurate and that the rights, integrity and confidentiality of trial participants are protected. Our reliance on third parties that we do not control does not relieve us of these responsibilities and requirements.

The third parties on whom we rely generally may terminate their engagements with us at any time. If we are required to enter into alternative arrangements because of any such termination, the introduction of our product candidates to market could be delayed.

If these third parties do not successfully carry out their duties under their agreements with us, if the quality or accuracy of the data they obtain is compromised due to their failure to adhere to our clinical trial protocols or regulatory requirements, or if they otherwise fail to comply with clinical trial protocols or meet expected deadlines, our clinical trials may not meet regulatory requirements. If our clinical trials do not meet regulatory requirements or if these third parties need to be replaced, our preclinical development activities or clinical trials may be extended, delayed, suspended or terminated. If any of these events occur, we may not be able to obtain regulatory approval of our product candidates and our reputation could be harmed.

**Risks Related to Our Intellectual Property Rights**

***We could be unsuccessful in obtaining adequate patent protection for one or more of our product candidates.***

We cannot be certain that patents will be issued or granted with respect to applications that are currently pending, or that issued or granted patents will not later be found to be invalid and/or unenforceable. The patent position of biotechnology and pharmaceutical companies is generally uncertain because it involves complex legal

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and factual considerations. The standards applied by the United States Patent and Trademark Office and foreign patent offices in granting patents are not always applied uniformly or predictably. For example, there is no uniform worldwide policy regarding patentable subject matter or the scope of claims allowable in biotechnology and pharmaceutical patents. Consequently, patents may not issue from our pending patent applications. As such, we do not know the degree of future protection that we will have on our proprietary products and technology. The scope of patent protection that the U.S. Patent and Trademark Office will grant with respect to the antibodies in our antibody product pipeline is uncertain. It is possible that the U.S. Patent and Trademark Office will not allow broad antibody claims that cover closely related antibodies as well as the specific antibody. Upon receipt of FDA approval, competitors would be free to market antibodies almost identical to ours, thereby decreasing our market share.

***Issued patents covering one or more of our products could be found invalid or unenforceable if challenged in court.***

If we or one of our corporate partners were to initiate legal proceedings against a third-party to enforce a patent covering one of our products, the defendant could counterclaim that our patent is invalid and/or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity and/or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, for example, lack of novelty, obviousness or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the U.S. Patent and Trademark Office, or made a misleading statement, during prosecution. Although we have conducted due diligence on patents we have exclusively in-licensed, and we believe that we have conducted our patent prosecution in accordance with the duty of candor and in good faith, the outcome following legal assertions of invalidity and unenforceability during patent litigation is unpredictable. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, we would lose at least part, and perhaps all, of the patent protection on one of our products or certain aspects of our Human Response Platform. Such a loss of patent protection could have a material adverse impact on our business.

***Claims that our platform technologies, our products or the sale or use of our products infringe the patent rights of third parties could result in costly litigation or could require substantial time and money to resolve, even if litigation is avoided.***

We cannot guarantee that our platform technologies, our products, or the use of our products, do not infringe third-party patents. Third parties might allege that we are infringing their patent rights or that we have misappropriated their trade secrets. Such third parties might resort to litigation against us. The basis of such litigation could be existing patents or patents that issue in the future.

It is also possible that we failed to identify relevant third-party patents or applications. For example, applications filed before November 29, 2000 and certain applications filed after that date that will not be filed outside the United States remain confidential until patents issue. Patent applications in the United States and elsewhere are published approximately 18 months after the earliest filing, which is referred to as the priority date. Therefore, patent applications covering our products or platform technology could have been filed by others without our knowledge. Additionally, pending patent applications which have been published can, subject to certain limitations, be later amended in a manner that could cover our platform technologies, our products or the use of our products.

With regard to tivozanib, we are aware of a third-party United States patent, and corresponding foreign counterparts, that contain broad claims related to use of an organic compound, that, among other things, inhibits the tyrosine phosphorylation of a VEGF receptor caused by VEGF binding to such VEGF receptor. Additionally, tivozanib falls within the scope of certain pending patent applications that have broad generic disclosure and

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disclosure of certain compounds possessing structural similarities to tivozanib. Although we believe it is unlikely that such applications will lead to issued claims that would cover tivozanib and still be valid in view of the prior art, patent prosecution is inherently unpredictable. We are also aware of third-party United States patents that contain broad claims related to the use of a tyrosine kinase inhibitor in combination with a DNA damaging agent such as chemotherapy or radiation and we have received written notice from the owners of such patents indicating that they believe we may need a license from them in order to avoid infringing their patents. With regard to ficlatuzumab, we are aware of two separate families of United States patents, United States patent applications and foreign counterparts, with each of the two families being owned by a different third-party, that contain broad claims related to anti-HGF antibodies having certain binding properties and their use. With regard to AV-203, we are aware of a third-party United States patent that contains broad claims relating to anti-ErbB3 antibodies. With regard to GDF-15, we are aware of a United States patent that contains claims related to antibodies binding to GDF-15 protein, which is set to expire in 2014. Based on our analyses, if any of the above third-party patents were asserted against us, we do not believe our proposed products or activities would be found to infringe any valid claim of these patents. If we were to challenge the validity of any issued United States patent in court, we would need to overcome a statutory presumption of validity that attaches to every United States patent. This means that in order to prevail, we would have to present clear and convincing evidence as to the invalidity of the patent s claims. There is no assurance that a court would find in our favor on questions of infringement or validity.

In order to avoid or settle potential claims with respect to any of the patent rights described above or any other patent rights of third parties, we may choose or be required to seek a license from a third-party and be required to pay license fees or royalties or both. These licenses may not be available on acceptable terms, or at all. Even if we or our strategic partners were able to obtain a license, the rights may be non-exclusive, which could result in our competitors gaining access to the same intellectual property. Ultimately, we could be prevented from commercializing a product, or be forced to cease some aspect of our business operations, if, as a result of actual or threatened patent infringement claims, we are unable to enter into licenses on acceptable terms. This could harm our business significantly.

Defending against claims of patent infringement or misappropriation of trade secrets could be costly and time-consuming, regardless of the outcome. Thus, even if we were to ultimately prevail, or to settle at an early stage, such litigation could burden us with substantial unanticipated costs. In addition, litigation or threatened litigation could result in significant demands on the time and attention of our management team, distracting them from the pursuit of other company business.

***Unfavorable outcomes in intellectual property litigation could limit our research and development activities and/or our ability to commercialize certain products.***

If third parties successfully assert intellectual property rights against us, we might be barred from using aspects of our technology platform, or barred from developing and commercializing related products. Prohibitions against using specified technologies, or prohibitions against commercializing specified products, could be imposed by a court or by a settlement agreement between us and a plaintiff. In addition, if we are unsuccessful in defending against allegations of patent infringement or misappropriation of trade secrets, we may be forced to pay substantial damage awards to the plaintiff. There is inevitable uncertainty in any litigation, including intellectual property litigation. There can be no assurance that we would prevail in any intellectual property litigation, even if the case against us is weak or flawed. If litigation leads to an outcome unfavorable to us, we may be required to obtain a license from the patent owner in order to continue our research and development programs or to market our product(s). It is possible that the necessary license will not be available to us on commercially acceptable terms, or at all. This could limit our research and development activities, our ability to commercialize specified products, or both.

Most of our competitors are larger than we are and have substantially greater resources. They are, therefore, likely to be able to sustain the costs of complex patent litigation longer than we could. In addition, the

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uncertainties associated with litigation could have a material adverse effect on our ability to raise the funds necessary to continue our clinical trials, continue our internal research programs, in-license needed technology, or enter into strategic partnerships that would help us bring our product candidates to market.

In addition, any future patent litigation, interference or other administrative proceedings will result in additional expense and distraction of our personnel. An adverse outcome in such litigation or proceedings may expose us or our strategic partners to loss of our proprietary position, expose us to significant liabilities, or require us to seek licenses that may not be available on commercially acceptable terms, if at all.

***Intellectual property litigation may lead to unfavorable publicity that harms our reputation and causes the market price of our common stock to decline.***

During the course of any patent litigation, there could be public announcements of the results of hearings, rulings on motions, and other interim proceedings in the litigation. If securities analysts or investors regard these announcements as negative, the perceived value of our products, programs, or intellectual property could be diminished. Accordingly, the market price of our common stock may decline.

***Tivozanib and AV-380 are protected by patents exclusively licensed from other companies or institutions. If the licensors terminate the licenses or fail to maintain or enforce the underlying patents, our competitive position and our market share in the markets for any of our approved products will be harmed.***

We are a party to several license agreements under which certain aspects of our business depend on patents and/or patent applications owned by other companies or institutions. In particular, we hold exclusive licenses from Kyowa Hakko Kirin for tivozanib, and from St. Vincent s Hospital Sydney, Australia, Limited for therapeutic applications that benefit from inhibition or decreased expression or activity of MIC-1, which we refer to as GDF-15 and which we are using in our AV-380 program. We are likely to enter into additional license agreements as part of the development of our business in the future. Our licensors may not successfully prosecute certain patent applications under which we are licensed and on which our business depends. Even if patents issue from these applications, our licensors may fail to maintain these patents, may decide not to pursue litigation against third-party infringers, may fail to prove infringement, or may fail to defend against counterclaims of patent invalidity or unenforceability. In addition, in spite of our best efforts, our licensors might conclude that we have materially breached our license agreements and might therefore terminate the license agreements, thereby removing our ability to obtain regulatory approval and to market products covered by these license agreements. If these in-licenses are terminated, or if the underlying patents fail to provide the intended market exclusivity, competitors would have the freedom to seek regulatory approval of, and to market, products identical to ours. This could have a material adverse effect on our competitive business position and our business prospects.

***We could be unsuccessful in obtaining patent protection on one or more components of our technology platform.***

We believe that an important factor in our competitive position relative to other companies in the field of targeted oncology therapeutics is our proprietary Human Response Platform. This platform is useful for identifying new targets for drug discovery, confirming that newly-identified drug targets actually play a role in cancer, testing new compounds for effectiveness as drugs, and identifying traits useful for predicting which patients will respond to which drugs. We own issued U.S. patents covering our chimeric model technology and directed complementation technology. However, patent protection on other aspects of our technology platform, such as our reconstituted human breast tumor model, is still pending. There is no guarantee that any of such pending patent applications, in the United States or elsewhere, will result in issued patents, and, even if patents eventually issue, there is no certainty that the claims in the eventual patents will have adequate scope to preserve our competitive position. Third parties might invent alternative technologies that would substitute for our technology platform while being outside the scope of the patents covering our platform technology. By successfully designing around our patented technology, third parties could substantially weaken our competitive position in oncology research and development.

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***Confidentiality agreements with employees and third parties may not prevent unauthorized disclosure of trade secrets and other proprietary information.***

In addition to patents, we rely on trade secrets, technical know-how, and proprietary information concerning our business strategy in order to protect our competitive position in the field of oncology. In the course of our research, development and business activities, we often rely on confidentiality agreements to protect our proprietary information. Such confidentiality agreements are used, for example, when we talk to vendors of laboratory or clinical development services or potential strategic partners. In addition, each of our employees is required to sign a confidentiality agreement upon joining our company. We take steps to protect our proprietary information, and we seek to carefully draft our confidentiality agreements to protect our proprietary interests. Nevertheless, there can be no guarantee that an employee or an outside party will not make an unauthorized disclosure of our proprietary confidential information. This might happen intentionally or inadvertently. It is possible that a competitor will make use of such information, and that our competitive position will be compromised, in spite of any legal action we might take against persons making such unauthorized disclosures.

Trade secrets are difficult to protect. Although we use reasonable efforts to protect our trade secrets, our employees, consultants, contractors, or outside scientific collaborators might intentionally or inadvertently disclose our trade secret information to competitors. Enforcing a claim that a third-party illegally obtained and is using any of our trade secrets is expensive and time-consuming, and the outcome is unpredictable. In addition, courts outside the United States sometimes are less willing than U.S. courts to protect trade secrets. Moreover, our competitors may independently develop equivalent knowledge, methods and know-how.

Our research and development strategic partners may have rights to publish data and other information to which we have rights. In addition, we sometimes engage individuals or entities to conduct research relevant to our business. The ability of these individuals or entities to publish or otherwise publicly disclose data and other information generated during the course of their research is subject to certain contractual limitations. These contractual provisions may be insufficient or inadequate to protect our confidential information. If we do not apply for patent protection prior to such publication, or if we cannot otherwise maintain the confidentiality of our proprietary technology and other confidential information, then our ability to obtain patent protection or to protect our trade secret information may be jeopardized.

***Intellectual property rights do not necessarily address all potential threats to our competitive advantage.***

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations, and may not adequately protect our business, or permit us to maintain our competitive advantage. The following examples are illustrative:

- Others may be able to make compounds that are similar to our product candidates but that are not covered by the claims of the patents that we own or have exclusively licensed.
- We or our licensors or strategic partners might not have been the first to make the inventions covered by the issued patent or pending patent application that we own or have exclusively licensed.
- We or our licensors or strategic partners might not have been the first to file patent applications covering certain of our inventions.
- Others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our intellectual property rights.
- It is possible that our pending patent applications will not lead to issued patents.
- Issued patents that we own or have exclusively licensed may not provide us with any competitive advantages, or may be held invalid or unenforceable, as a result of legal challenges by our competitors.

Our competitors might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets.

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We may not develop additional proprietary technologies that are patentable.

The patents of others may have an adverse effect on our business.

***Changes in U.S. patent law could diminish the value of patents in general, thereby impairing our ability to protect our products.***

As is the case with other biopharmaceutical companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biopharma industry involve both technological complexity and legal complexity. Therefore, obtaining and enforcing biopharma patents is costly, time-consuming and inherently uncertain. In addition, several recent events have increased uncertainty with regard to our ability to obtain patents in the future and the value of patents once obtained. Among these, in September 2011, patent reform legislation passed by Congress was signed into law. The new patent law introduces changes including a first-to-file system for determining which inventors may be entitled to receive patents, and a new post-grant review process that allows third parties to challenge newly issued patents. It remains to be seen how the biopharma industry will be affected by such changes in the patent system. In addition, the Supreme Court has ruled on several patent cases in recent years, either narrowing the scope of patent protection available in specified circumstances or weakening the rights of patent owners in specified situations. Depending on decisions by the U.S. Congress, the federal courts, and the U.S. Patent and Trademark Office, the laws and regulations governing patents could change in unpredictable ways that could weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future

**Risks Related to Ownership of Our Common Stock**

***The market price of our common stock has been, and is likely to continue to be, highly volatile, and could fall below the price you paid. A significant decline in the value of our stock price could also result in securities class-action litigation against us.***

The market price of our common stock has been, and is likely to continue to be, highly volatile and subject to wide fluctuations in price in response to various factors, many of which are beyond our control, including:

new products, product candidates or new uses for existing products introduced or announced by our strategic partners, or our competitors, and the timing of these introductions or announcements;

actual or anticipated results from and any delays in our clinical trials;

results of regulatory reviews relating to the approval of our product candidates, such as the substantial decline in our stock price that occurred when we announced that the FDA s Oncologic Drugs Advisory Committee, or ODAC, voted 13 to 1 that our NDA for tivozanib for the treatment of patients with advanced RCC did not demonstrate a favorable benefit/risk evaluation in an adequate and well-controlled trial;

the results of our efforts to discover, develop, acquire or in-license additional product candidates or products;

disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;

announcements by us of material developments in our business, financial condition and/or operations;

announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures and capital commitments;

additions or departures of key scientific or management personnel;

conditions or trends in the biotechnology and biopharmaceutical industries;

actual or anticipated changes in earnings estimates, development timelines or recommendations by securities analysts;

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general economic and market conditions and other factors that may be unrelated to our operating performance or the operating performance of our competitors, including changes in market valuations of similar companies; and

sales of common stock by us or our stockholders in the future, as well as the overall trading volume of our common stock.

In addition, the stock market in general and the market for biotechnology and biopharmaceutical companies in particular have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. These broad market and industry factors may seriously harm the market price of our common stock, regardless of our operating performance.

In the past, following periods of volatility in the market, such as the volatility in our stock price following our May 2, 2013 announcement regarding the ODAC vote, securities class-action litigation has often been instituted against companies. For example, we, and certain of our executive officers, have been named as defendants in a consolidated purported class action lawsuit following our announcement of the ODAC vote. See Part I, Item 3 Legal Proceedings and We and certain of our executive officers have been named as defendants in a class action lawsuit that could result in substantial costs and divert management s attention. These proceedings and other similar litigation, if instituted against us, could result in substantial costs and diversion of management s attention and resources, which could materially and adversely affect our business and financial condition.

***Our executive officers, directors, entities affiliated with such executive officers and directors, and certain other significant stockholders own a significant percentage of our stock and may be able to exercise significant influence over matters subject to stockholder approval.***

To our knowledge, as of December 31, 2013, our executive officers, directors, entities affiliated with such executive officers and directors, and certain other significant stockholders, owned approximately 18% of our common stock, including shares subject to outstanding options that are exercisable within 60 days after December 31, 2013. These stockholders, acting together or individually, may be able to exert influence over our management and affairs and over matters requiring stockholder approval, including the election of our board of directors and approval of significant corporate transactions. This concentration of ownership could have the effect of delaying or preventing a change in control of our company or otherwise discouraging a potential acquirer from attempting to obtain control of us, which in turn could have a material and adverse effect on the market price of our common stock.

***Our management has broad discretion over the use of the cash available for our operations and working capital requirements and might not spend available cash in ways that increase the value of your investment.***

Our management has broad discretion on where and how to use our cash and you will be relying on the judgment of our management regarding the application of our available cash to fund our operations. Our management might not apply our cash in ways that increase the value of your investment. We expect to use a substantial portion of our cash to fund existing and future research and development of our preclinical and clinical product candidates, with the balance, if any, to be used for working capital and other general corporate purposes, which may in the future include investments in, or acquisitions of, complementary businesses, joint ventures, partnerships, services or technologies. Our management might not be able to yield a significant return, if any, on any investment of this cash. You will not have the opportunity to influence our decisions on how to use our cash reserves.

***Fluctuations in our quarterly operating results could adversely affect the price of our common stock.***

Our quarterly operating results may fluctuate significantly. Some of the factors that may cause our operating results to fluctuate on a period-to-period basis include:

the status of our preclinical and clinical development programs;

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the level of expenses incurred in connection with our preclinical and clinical development programs, including development and manufacturing costs relating to our preclinical and clinical development candidates;

any intellectual property infringement lawsuit or other litigation in which we may become involved;

the implementation of restructuring and cost-savings strategies;

the implementation or termination of collaboration, licensing, manufacturing or other material agreements with third parties, and non-recurring revenue or expenses under any such agreement;

costs associated with lawsuits against us, including the current purported class action lawsuits described elsewhere in this Annual Report under Part I, Item 3 Legal Proceedings;

changes in our loan agreement with Hercules, including the existence of any event of default that may accelerate payments due thereunder; and

compliance with regulatory requirements.

Period-to-period comparisons of our historical and future financial results may not be meaningful, and investors should not rely on them as an indication of future performance. Our fluctuating results may fail to meet the expectations of securities analysts or investors. Our failure to meet these expectations may cause the price of our common stock to decline.

***Unstable market and economic conditions may have serious adverse consequences on our business, financial condition and stock price.***

As widely reported, global credit and financial markets have been experiencing extreme volatility, and in some cases, disruptions, over the past several years, including severely diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in unemployment rates, and uncertainty about economic stability, in many cases, over extended periods. Though certain of these trends have recently showed signs of reversing, there can be no assurance that further deterioration in credit and financial markets and confidence in economic conditions will not occur. Our general business strategy may be adversely affected by the current adverse economic conditions and volatile business environment and continued unpredictable and unstable market conditions. If the equity and credit markets do not continue to improve, it may make any necessary debt or equity financing more difficult, more costly, and more dilutive. Failure to secure any necessary financing in a timely manner and on favorable terms could have a material adverse effect on our growth strategy, financial performance and stock price and could require us to delay or abandon clinical development plans. In addition, there is a risk that one or more of our current service providers, manufacturers or other partners may not survive these economically turbulent times, which could directly affect our ability to attain our operating goals on schedule and on budget.

At December 31, 2013, we had $118.5 million of cash, cash equivalents and marketable securities consisting of cash on deposit with banks, money market funds, U.S. government agency securities, asset-backed securities, asset-backed commercial paper and corporate debt securities, including commercial paper. As of the date of this report, we are not aware of any downgrades, material losses, or other significant deterioration in the fair value of our cash equivalents or marketable securities. However, no assurance can be given that deterioration in conditions of the global credit and financial markets would not negatively impact our current portfolio of cash equivalents or marketable securities or our ability to meet our financing objectives. Dislocations in the credit market may adversely impact the value and/or liquidity of cash equivalents or marketable securities owned by us.

There is a possibility that our stock price may decline because of volatility of the stock market and general economic conditions.

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***Future sales of shares of our common stock, including shares issued upon the exercise of currently outstanding options, could negatively affect our stock price.***

A substantial portion of our outstanding common stock can be traded without restriction at any time. Some of these shares are currently restricted as a result of securities laws, but will be able to be sold, subject to any applicable volume limitations under federal securities laws with respect to affiliate sales, in the near future. As such, sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares intend to sell such shares, could reduce the market price of our common stock. In addition, we have a significant number of shares that are subject to outstanding options. The exercise of these options and the subsequent sale of the underlying common stock could cause a further decline in our stock price. These sales also might make it difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate.

***Provisions in our certificate of incorporation, our by-laws or Delaware law might discourage, delay or prevent a change in control of our company or changes in our management and, therefore, depress the market price of our common stock.***

Provisions of our certificate of incorporation, our by-laws or Delaware law may have the effect of deterring unsolicited takeovers or delaying or preventing a change in control of our company or changes in our management, including transactions in which our stockholders might otherwise receive a premium for their shares over then current market prices. In addition, these provisions may limit the ability of stockholders to approve transactions that they may deem to be in their best interest. These provisions include:

- advance notice requirements for stockholder proposals and nominations;
- the inability of stockholders to act by written consent or to call special meetings;
- the ability of our board of directors to make, alter or repeal our by-laws; and
- the ability of our board of directors to designate the terms of and issue new series of preferred stock without stockholder approval, which could be used to institute a rights plan, or a poison pill, that would work to dilute the stock ownership of a potential hostile acquirer, likely preventing acquisitions that have not been approved by our board of directors.

In addition, Section 203 of the Delaware General Corporation Law prohibits a publicly-held Delaware corporation from engaging in a business combination with an interested stockholder, generally a person which together with its affiliates owns, or within the last three years has owned, 15% of our voting stock, for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner.

The existence of the foregoing provisions and anti-takeover measures could limit the price that investors might be willing to pay in the future for shares of our common stock. They could also deter potential acquirers of our company, thereby reducing the likelihood that a stockholder could receive a premium for shares of our common stock held by a stockholder in an acquisition.

***Our business could be negatively affected as a result of the actions of activist shareholders.***

Proxy contests have been waged against many companies in the biopharmaceutical industry over the last few years. If faced with a proxy contest, we may not be able to successfully respond to the contest, which would be disruptive to our business. Even if we are successful, our business could be adversely affected by a proxy contest because:

- responding to proxy contests and other actions by activist shareholders may be costly and time-consuming, and may disrupt our operations and divert the attention of management and our employees;

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perceived uncertainties as to the potential outcome of any proxy contest may result in our inability to consummate potential acquisitions, collaborations or in-licensing opportunities and may make it more difficult to attract and retain qualified personnel and business partners; and

if individuals that have a specific agenda different from that of our management or other members of our board of directors are elected to our board as a result of any proxy contest, such an election may adversely affect our ability to effectively and timely implement our strategic plan and create additional value for our stockholders.

***Failure to maintain effective internal controls in accordance with Section 404 of the Sarbanes-Oxley Act could have a material adverse effect on our ability to produce accurate financial statements and on our stock price.***

Section 404 of the Sarbanes-Oxley Act of 2002 requires us, on an annual basis, to review and evaluate our internal controls, and requires our independent registered public accounting firm to attest to the effectiveness of our internal controls. Despite our efforts, we can provide no assurance as to our, or our independent registered public accounting firm s conclusions with respect to the effectiveness of our internal control over financial reporting under Section 404. There is a risk that neither we nor our independent registered public accounting firm will be able to continue to conclude within the prescribed timeframe that our internal control over financial reporting is effective as required by Section 404. This could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of our financial statements.

***We do not expect to pay any cash dividends for the foreseeable future.***

You should not rely on an investment in our common stock to provide dividend income. We do not anticipate that we will pay any cash dividends to holders of our common stock in the foreseeable future. Instead, we plan to retain any earnings to maintain and expand our existing operations. In addition, our ability to pay cash dividends is currently prohibited by the terms of our debt financing arrangements and any future debt financing arrangement may contain terms prohibiting or limiting the amount of dividends that may be declared or paid on our common stock. Accordingly, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any return on their investment. As a result, investors seeking cash dividends should not purchase our common stock.

**ITEM 1B. Unresolved Staff Comments**

None

**ITEM 2. Properties**

We sublease our principal facilities, which consist of approximately 126,065 square feet of office, research and laboratory space located at 650 East Kendall Street, Cambridge, Massachusetts, which sublease expires in December 2024; and approximately 19,711 square feet of office space located at 12 Emily Street, Cambridge, Massachusetts, under subleases expiring in December 2014 and May 2015. We believe that our existing facilities are sufficient for our current needs for the foreseeable future.

**ITEM 3. Legal Proceedings**

Two class action lawsuits have been filed against us and certain of our present and former officers and members of our board of directors, (Tuan Ha-Ngoc, David N. Johnston, William Slichenmyer and Ronald DePinho), in the United States District Court for the District of Massachusetts, one captioned Paul Sanders v. Aveo Pharmaceuticals, Inc., et al., No. 1:13-cv-11157-JLT, filed on May 9, 2013, and the other captioned Christine Krause v. AVEO Pharmaceuticals, Inc., et al., No. 1:13-cv-11320-JLT, filed on May 31, 2013. On

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December 4, 2013, the District Court consolidated the complaints as In re AVEO Pharmaceuticals, Inc. Securities Litigation et al., No. 1:13-cv-11157-DJC, and an amended complaint was filed on February 3, 2014. The amended complaint purports to be brought on behalf of shareholders who purchased our common stock between January 3, 2012 and May 1, 2013. The amended complaint generally alleges that we and certain of our present and former officers and directors violated Sections 10(b) and/or 20(a) of the Securities Exchange Act of 1934 and Rule 10b-5 promulgated thereunder by making allegedly false and/or misleading statements concerning the phase 3 trial design and results for our TIVO-1 study in an effort to lead investors to believe that the drug would receive approval from the FDA. The amended complaint seeks unspecified damages, interest, attorneys fees, and other costs. We deny any allegations of wrongdoing and intend to vigorously defend against this lawsuit. However, there is no assurance that we will be successful in our defense or that insurance will be available or adequate to fund any settlement or judgment or the litigation costs of the action. Moreover, we are unable to predict the outcome or reasonably estimate a range of possible loss at this time.

On July 3, 2013, we received a subpoena from the SEC, requesting documents and information concerning tivozanib, including related communications with the FDA, investors and others. We are fully cooperating with the SEC regarding this fact-finding inquiry. The SEC has informed us that this inquiry should not be construed as an indication that any violations of law have occurred or that the SEC has any negative opinion of any person, entity or security.

**ITEM 4. Mine Safety Disclosures**

Not applicable.

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**PART II**

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

**MARKET PRICE INFORMATION**

Our common stock is traded on the NASDAQ Global Market under the symbol AVEO . The following table sets forth the high and low sale prices per share for our common stock for the periods indicated:

| | High | Low |
|---|---|---|
| **2012** | | |
| First Quarter | $ 17.09 | $ 12.00 |
| Second Quarter | $ 13.08 | $ 10.40 |
| Third Quarter | $ 14.08 | $ 7.86 |
| Fourth Quarter | $ 11.00 | $ 5.80 |

| | High | Low |
|---|---|---|
| **2013** | | |
| First Quarter | $ 8.94 | $ 6.35 |
| Second Quarter | $ 8.40 | $ 2.25 |
| Third Quarter | $ 2.68 | $ 2.03 |
| Fourth Quarter | $ 2.35 | $ 1.54 |

**HOLDERS**

At February 28, 2014, there were approximately 52 holders of record of our common stock. We believe that the number of beneficial owners of our common stock at that date was substantially greater.

**DIVIDENDS**

We have never declared or paid any cash dividends on our common stock and our ability to pay cash dividends is currently prohibited by the terms of our debt financing arrangements. We currently intend to retain earnings, if any, for use in our business and do not anticipate paying cash dividends on our common stock in the foreseeable future. Payment of future dividends, if any, on our common stock will be at the discretion of our board of directors after taking into account various factors, including our financial condition, operating results, anticipated cash needs, and plans for expansion.

**Comparative Stock Performance Graph**

The information included under the heading Comparative Stock Performance Graph in this Item 5 of Part II of this Annual Report on Form 10-K shall not be deemed to be soliciting material or subject to Regulation 14A or 14C, shall not be deemed filed for purposes of Section 18 of the Exchange Act, or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act.

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Set forth below is a graph comparing the total cumulative returns of AVEO, the NASDAQ Composite Index and the NASDAQ Biotechnology Index. The graph assumes $100 was invested on March 12, 2010 in our common stock and each of the indices and that all dividends, if any, are reinvested.

| t/Peer Group | 3/12/2010 | 3/31/2010 | 6/30/2010 | 9/30/2010 | 12/31/2010 | 3/31/2011 | 6/30/2011 | 9/30/2011 | 12/31/2011 | 3/31/2012 | 6/30/2012 | 9/30/2012 | 12/31/2012 | 3/31/2013 | 6/30/2013 | 9/30 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ticals | $ 100.00 | $ 100.11 | $ 78.64 | $ 123.92 | $ 162.63 | $ 148.16 | $ 229.25 | $ 171.19 | $ 191.32 | $ 138.04 | $ 135.26 | $ 115.80 | $ 89.54 | $ 81.76 | $ 27.81 | $ |
| site Index | $ 100.00 | $ 101.30 | $ 89.30 | $ 100.50 | $ 112.88 | $ 118.58 | $ 118.53 | $ 103.48 | $ 111.95 | $ 133.18 | $ 126.82 | $ 135.07 | $ 131.49 | $ 142.69 | $ 149.14 | $ 1 |
| nology Index | $ 100.00 | $ 100.23 | $ 85.41 | $ 95.65 | $ 103.71 | $ 111.32 | $ 118.59 | $ 103.83 | $ 116.24 | $ 137.41 | $ 145.09 | $ 159.61 | $ 153.77 | $ 179.51 | $ 195.11 | $ 2 |

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**ITEM 6. Selected Financial Data**

The following selected consolidated financial data should be read in conjunction with our Consolidated Financial Statements and the Accompanying Notes thereto and Management s Discussion and Analysis of Financial Condition and Results of Operations included elsewhere in this Annual Report on Form 10-K. The Balance Sheet Data at December 31, 2013 and 2012 and the Statement of Operations Data for each of the three years in the period ended December 31, 2013 have been derived from our audited Consolidated Financial Statements for such years, included elsewhere in this Annual Report on Form 10-K. The Balance Sheet Data at December 31, 2011, 2010 and 2009, and the Statement of Operations Data for each of the two years in the period ended December 31, 2010 have been derived from the audited Consolidated Financial Statements for such years not included in this Annual Report on Form 10-K. Please refer to the Critical Accounting Policies and Significant Judgments and Estimates section in Management s Discussion and Analysis of Financial Condition and Results of Operations for discussion of the impact of our adoption of Accounting Standards Update, or ASU, 2009-13 on the selected data below.

Our historical results for any prior period are not necessarily indicative of results to be expected in any future period.

| | Years Ended December 31, | | | | |
|---|---|---|---|---|---|
| | 2013 | 2012 | 2011 | 2010 | 2009 |
| | (in thousands, except per share data) | | | | |
| **Statement of operations data:** | | | | | |
| Revenue | $ 1,293 | $ 19,286 | $ 164,849 | $ 44,682 | $ 20,719 |
| Operating expenses: | | | | | |
| Research and development | 68,468 | 91,358 | 101,735 | 86,345 | 51,792 |
| General and administrative | 28,712 | 36,932 | 29,167 | 14,763 | 10,120 |
| Restructuring | 8,017 | 2,633 | | | |
| Total operating expenses | 105,197 | 130,923 | 130,902 | 101,108 | 61,912 |
| (Loss) income from operations | (103,904) | (111,637) | 33,947 | (56,426) | (41,193) |
| Other income and expense: | | | | | |
| Other income (expense), net | (123) | 247 | 10 | 900 | (333) |
| Interest expense | (3,127) | (3,501) | (3,836) | (3,389) | (2,811) |
| Interest income | 125 | 497 | 527 | 126 | 144 |
| Other expense, net | (3,125) | (2,757) | (3,299) | (2,363) | (3,000) |
| Net (loss) income before benefit for income taxes | (107,029) | (114,394) | 30,648 | (58,789) | (44,193) |
| Benefit for income taxes | | | | | 100 |
| Net (loss) income | $ (107,029) | $ (114,394) | $ 30,648 | $ (58,789) | $ (44,093) |
| Net (loss) income per share basic | $ (2.10) | $ (2.64) | $ 0.77 | $ (2.30) | $ (27.43) |
| Weighted average number of common shares used in net (loss) income per share calculation basic | 50,928 | 43,374 | 39,715 | 25,582 | 1,607 |
| Net (loss) income per share diluted | $ (2.10) | $ (2.64) | $ 0.74 | $ (2.30) | $ (27.43) |
| Weighted average number of common shares and dilutive common share equivalents used in net (loss) income per share calculation diluted | 50,928 | 43,374 | 41,473 | 25,582 | 1,607 |

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| | As of December 31, | | | | |
|---|---|---|---|---|---|
| | 2013 | 2012 | 2011 | 2010 | 2009 |
| | | | (in thousands) | | |
| **Balance sheet data:** | | | | | |
| Cash, cash equivalents, and marketable securities | $ 118,506 | $ 160,602 | $ 275,440 | $ 140,198 | $ 51,301 |
| Working capital | 97,511 | 151,551 | 199,786 | 103,360 | 18,789 |
| Total assets | 146,346 | 207,469 | 295,050 | 151,048 | 59,844 |
| Loans payable, including current portion, net of discount | 19,205 | 26,037 | 24,170 | 23,402 | 19,745 |
| Preferred stock warrant liability | | | | | 1,459 |
| Convertible preferred stock | | | | | 156,705 |
| Accumulated deficit | (427,289) | (320,260) | (205,866) | (236,514) | (177,725) |
| Total stockholders equity (deficit) | 69,938 | 118,938 | 223,541 | 71,770 | (170,291) |

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**ITEM 7. Management s Discussion and Analysis of Financial Condition and Results of Operations**

*You should read the following discussion and analysis of our financial condition and results of operations together with our financial statements and the related notes appearing elsewhere in this report. Some of the information contained in this discussion and analysis or set forth elsewhere in this report, including information with respect to our plans and strategy for our business and related financing, includes forward-looking statements that involve risks and uncertainties. You should read the Risk Factors section in Part 1 Item 1A. of this report for a discussion of important factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.*

**Overview**

We are a biopharmaceutical company committed to discovering and developing targeted therapies designed to provide substantial impact in the lives of people with cancer by addressing unmet medical needs. AVEO s proprietary Human Response Platform provides the company unique insights into cancer and related disease biology and is being leveraged in the discovery and clinical development of its therapeutic candidates. Some of the programs we are developing include:

**AV-203:** AV-203 is an anti-ErbB3 monoclonal antibody with broad therapeutic potential. AV-203 has high ErbB3 affinity and potent anti-tumor activity in mouse models. AV-203 inhibits the activity of the ErbB3 receptor and our preclinical studies suggest that neuregulin-1, or NRG1, levels predict AV-203 anti-tumor activity in preclinical models. We have completed a phase 1 dose escalation study of AV-203 showing no dose limiting toxicities at maximum dose of 20mg/kg. The expansion cohort of this study among patients with a specific biomarker has been discontinued. We are currently partnered with Biogen Idec with respect to AV-203, and Biogen Idec has an option for development outside of the United States. Subject to our ability to regain certain rights from Biogen Idec with respect to AV-203, we will seek to resume clinical development with a third party.

**Ficlatuzumab:** Ficlatuzumab is a Hepatocyte Growth Factor, or HGF, inhibitory antibody. HGF is the sole known ligand of the c-Met receptor which is believed to trigger many activities that are involved in cancer development and metastasis. We have completed two phase 1 clinical studies and a phase 2 clinical study evaluating ficlatuzumab in combination with gefitinib in first line non-small cell lung cancer, or NSCLC. The phase 2 trial failed to demonstrate a statistically significant benefit in the intent- to-treat population. However, an exploratory analysis using a serum-based molecular diagnostic test identified a patient sub-population that experienced a progression free survival and overall survival benefit on the combination therapy in the phase 2 trial. We are currently seeking a partner that could support further clinical development in this patient population.

**Tivozanib.** In 2006, we acquired exclusive rights to develop and commercialize tivozanib, worldwide outside of Asia pursuant to a license agreement we entered into with Kirin Brewery Co. Ltd. (now Kyowa Hakko Kirin), or KHK. Tivozanib is an investigational tyrosine kinase inhibitor of all three vascular endothelial growth factor, or VEGF receptors. As discussed below under the heading Strategic Partnerships, we entered into a strategic collaboration with Astellas in which we agreed to share responsibility with Astellas for the continued development and commercialization of tivozanib in the United States, Mexico and Canada, which we refer to collectively as North America, and Europe. Throughout the rest of the world, outside of North America, Europe and Asia, we granted Astellas an exclusive, royalty-bearing license to develop and commercialize tivozanib. On June 10, 2013, we received a complete response letter from the U.S. Food and Drug Administration, or FDA, informing us that the FDA will not approve in its present form our New Drug Application, or NDA, for tivozanib for the treatment of patients with advanced renal cell carcinoma, or RCC. In February 2014, Astellas informed us of its intent to end our collaboration for tivozanib. Currently, our focus with tivozanib is to wind down our activities related to our partnership with Astellas, including on-going support for patients who continue

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to receive treatment with tivozanib related to our clinical trials in RCC, breast cancer and colorectal cancer, which we had previously announced that we were discontinuing prior to Astellas exercise of its termination. In August 2014, pursuant to the terms of the license agreement, in connection with the termination, all rights for the development and commercialization of tivozanib will revert to AVEO. We will consider further partnering options based on what we believe is a favorable risk and benefit profile which could provide benefit to patients in certain indications.

**AV-380 Program:** In 2012, we initiated a program focusing on cachexia, a serious and common complication of advanced cancer and a number of chronic diseases that is characterized by unintentional weight loss, progressive muscle wasting, and a loss of appetite. Our primary research focus is in the area of cancer cachexia where there is a major unmet need. Over 400,000 patients in the United States being treated for cancer also suffer from cachexia. In addition, cachexia is also associated with diseases outside of cancer including congestive heart failure, chronic kidney disease, and chronic obstructive pulmonary disease. AV-380, our lead drug candidate, is a potent humanized IgG1 inhibitory monoclonal antibody targeting growth differentiating factor-15, or GDF-15, a divergent member of the TGF-b. family. In connection with this program, we have in-licensed certain patents and patent applications from St. Vincent s Hospital in Sydney, Australia.

We believe that AV-380 represents a unique approach to treating cachexia because it addresses key underlying mechanisms of the syndrome. In preclinical models, AV-380 has been shown to increase food intake, reverse body weight loss and restore normal body composition. Appropriate IND-enabling efforts, including cell line development, have been initiated to prepare AV-380 for future clinical development, and we expect that we will begin a phase 1 clinical study of AV-380 in cachexia in the second half of 2015. We plan to evaluate opportunities for partnerships to expand the development of AV-380 in cachexia associated with non-cancer indications including chronic heart failure, chronic kidney disease and chronic obstructive pulmonary disease to leverage the full potential of this asset.

Going forward, we plan to focus our internal resources to advance potential first-in-class opportunities, such as our AV-380 program. We also plan to utilize external resources through innovative collaborations and strategic partnerships to develop our other assets. We plan to evaluate our potential drug candidates in accordance with the following criteria:

Identify diseases where no other therapies exist or where there is a well-defined patient population with clear unmet medical needs;

Provide a clear path to proof of concept and approval with reasonable probabilities of success; and

Pursue programs that can deliver value inflections within a projected framework.

Our proprietary Human Response Platform was designed to overcome many of the limitations of traditional approaches to modeling human cancer, as we use patented genetic engineering techniques to grow populations of spontaneous tumors in animals containing human-relevant, cancer-causing mutations and tumor variations akin to what is seen in populations of human tumors. Because we believe that these populations of tumors better replicate what is seen in human cancer, we believe that our Human Response Platform provides us with unique insights into cancer biology and mechanisms of drug response and resistance, and represents a significant improvement over traditional approaches. The identification and development of potential biomarkers through our Human Response Platform is a core component of our oncology drug development efforts.

We have devoted substantially all of our resources to our drug discovery efforts comprising research and development, conducting clinical trials for our product candidates, protecting our intellectual property and the general and administrative functions of these operations. We have generated no revenue from product sales through December 31, 2013, and through such date have principally funded our operations through:

390.7 million of non-dilutive capital in the form of license fees, milestone payments and research and development funding received from our strategic partners;

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$169.6 million of funding from the sale of convertible preferred stock to investors prior to our initial public offering, including $77.5 million of equity sales to our strategic partners;

$89.7 million of gross proceeds from the sale of common stock in connection with the completion of our initial public offering;

$26.5 million of loan proceeds in connection with our loan agreement with Hercules Technology II, L.P. and Hercules Technology III, L.P.;

$68.3 million of gross proceeds from private placements of our common stock; and

$168.7 million of gross proceeds from the sale of common stock in connection with public offerings of our common stock in June 2011 and January 2013.

We do not have a history of being profitable and, as of December 31, 2013, we had an accumulated deficit of $427.3 million. We anticipate that we will continue to incur significant operating costs over the next several years as we continue our planned development activities for our preclinical and clinical products. We will need additional financing to support our operating activities.

**Recent Developments**

On February 12, 2014, Astellas elected to exercise its right to terminate our collaboration and license agreement for the development and commercialization of investigational agent tivozanib. Astellas exercised its right to terminate the agreement for strategic reasons, based on the clinical status of the three indications studied. The termination of the collaboration will be effective August 11, 2014 at which time tivozanib rights will be returned to us. In accordance with the collaboration and license agreement, committed development costs, including the costs of winding down discontinued tivozanib clinical development programs, will be shared equally.

**Strategic Partnerships**

***St. Vincent s Hospital***

In July 2012, we entered into a license agreement with St. Vincent s Hospital Sydney Limited, which we refer to as St. Vincent s, under which we obtained an exclusive, worldwide license, with the right to grant sublicenses subject to certain restrictions, under specified patent rights and related know-how, to research, develop, manufacture and commercialize products for therapeutic applications that benefit from inhibition or decreased expression or activity of MIC-1, which is also known as GDF-15 and which we refer to throughout this Annual Report as GDF-15. We are exploiting this license in our AV-380 program for cachexia. We have a right of first negotiation to obtain an exclusive license to certain improvements that St. Vincent s or third parties may make to licensed therapeutic products. Under the license agreement, St. Vincent s also granted us non-exclusive rights for certain related diagnostic products and research tools.

Under the license agreement, we are obligated to use diligent efforts to conduct research and clinical development and commercially launch at least one licensed therapeutic product, and to maximize profits from licensed therapeutic products for the benefit of us and St. Vincent s. Subject to certain conditions, we have also agreed to achieve specified research, development and regulatory milestones by specified dates. If we do not achieve a given milestone by the agreed date, we have the option of paying the amount we would have been obligated to pay had we timely achieved the milestone, and, if we do so, St. Vincent s will not have the right to terminate the license agreement based on our failure to timely achieve such milestone.

We have also agreed that, for as long as there is a valid claim in the licensed patents, we will not, and we will ensure that our affiliates and our sublicensees do not, develop or commercialize any product, other than a licensed therapeutic product, for the treatment, prevention or prophylaxis of cachexia, decreased appetite or body weight, that binds to GDF-15 or the GDF-15 receptor and that is a GDF-15 antagonist, and will not license or induce any other person to do the same.

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In connection with entering into the license agreement with St. Vincent s, we paid St. Vincent s an upfront license fee of $0.7 million and a low five-figure amount to reimburse St. Vincent s for patent-related expenses it incurred with respect to a specified licensed patent.

Under our license agreement with St. Vincent s, we may be required to:

- make milestone payments, up to an aggregate total of $9.2 million, upon achievement of specified research, development and regulatory milestones for the first three indications for licensed therapeutic products, some of which payments may be increased by a mid to high double-digit percentage rate for milestones payments made after we grant any sublicense under the license agreement, depending on the sublicensed territory or territories;

- pay tiered royalty payments equal to a low-single-digit percentage of any net sales we or our sublicensees make of licensed therapeutic products. The royalty rate escalates within the low-single-digit range during each calendar year based on increasing licensed therapeutic product sales during such calendar year. Our royalty payment obligations for a licensed therapeutic product in a particular country end on the later of 10 years after the date of first commercial sale of such licensed therapeutic product in such country or expiration of the last-to-expire valid claim of the licensed patents covering such licensed therapeutic product in such country, and are subject to offsets under certain circumstances;

- pay St. Vincent s sublicensing fees of up to an aggregate amount in the low-to-mid six-digits, depending on the sublicensed territory or territories, at the time we grant any sublicense; and

- reimburse St. Vincent s for some or all of the reasonable costs and expenses it incurs in patent management, filing, prosecuting and maintaining the licensed patents.

The license agreement will remain in effect until the later of 10 years after the date of first commercial sale of licensed therapeutic products in the last country in which a commercial sale is made, or expiration of the last-to-expire valid claim of the licensed patents, unless we elect, or St. Vincent s elects, to terminate the license agreement earlier.

Either party has the right to terminate the agreement in connection with a material breach of the agreement by the other party that remains uncured for a specified cure period, or in connection with events relating to the other party s insolvency or bankruptcy, or if a force majeure event continues for more than 4 months.

St. Vincent s has the right to terminate the agreement due to any patent-related challenge by us, our affiliates or any sublicensee, or if we or our affiliates or any sublicensee cause or induce any other person to make a patent-related challenge, and such challenge continues after a specified cure period.

We have the right to terminate the agreement on 6 months notice if we terminate our GDF-15 research and development programs as a result of the failure of a licensed therapeutic product in pre-clinical or clinical development, or if we form the reasonable view that further GDF-15 research and development is not commercially viable, and we are not then in breach of any of our obligations under the agreement. If we form the reasonable view that further GDF-15 research and development is not commercially viable and terminate the agreement before we start a phase 1 clinical trial on a licensed therapeutic product, we will be required to pay St. Vincent s a low-to-mid six-figure termination payment.

We may also terminate the agreement on 60 days notice if certain licensed patents become invalid or unenforceable prior to July 2, 2014, are not in breach of any of our obligations under the agreement, and we, our affiliates and sublicensees have not made a patent-related challenge.

Any termination of the agreement, in whole or in part, will result in a loss of our rights to the relevant licensed patents and know-how. If St. Vincent s terminates the agreement in its entirety due to our breach, insolvency or a patent-related challenge, or we terminate the agreement due to a development failure or lack of

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commercial viability, as described above, St. Vincent s will have a non-exclusive license from us to certain intellectual property rights and know-how relating to the licensed therapeutic products, and we must transfer to St. Vincent s certain then-existing regulatory approvals and related documents for the licensed therapeutic products.

***Kyowa Hakko Kirin***

In December 2006, we entered into a license agreement with Kirin Brewery Co. Ltd. (now Kyowa Hakko Kirin) which we sometimes refer to as KHK, under which we obtained an exclusive license, with the right to grant sublicenses subject to certain restrictions, to research, develop, manufacture and commercialize tivozanib, pharmaceutical compositions thereof and associated biomarkers. Our exclusive license covers all territories in the world, except for Asia. KHK has retained rights to tivozanib in Asia. Under the license agreement, we obtained exclusive rights in our territory under certain KHK patents, patent applications and know-how related to tivozanib, to research, develop, make, have made, use, import, offer for sale, and sell tivozanib for the diagnosis, prevention and treatment of any and all human diseases and conditions. We and KHK each have access to and can benefit from the other party s clinical data and regulatory filings with respect to tivozanib and biomarkers identified in the conduct of activities under the license agreement.

Under the license agreement, we are obligated to use commercially reasonable efforts to develop and commercialize tivozanib in our territory, including meeting certain specified diligence goals. Prior to the first anniversary of the first post-marketing approval sale of tivozanib in our territory, neither we nor any of our subsidiaries has the right to conduct certain clinical trials of, seek marketing approval for or commercialize any other cancer product that also works by inhibiting the activity of the VEGF receptor.

Upon entering into the license agreement with KHK, we made a one-time cash payment in the amount of $5.0 million. In addition, we are required to make various milestone payments which could total, in the aggregate, $60.0 million, including a milestone payment in connection with the TIVO-1 study and certain other milestone payments upon the achievement of specified regulatory milestones. In March 2010, we made a $10.0 million milestone payment to KHK in connection with the dosing of the first patient in our phase 3 clinical trial of tivozanib. We made a $22.5 million payment to KHK during the year ended December 31, 2011 related to the up-front license payment received under the collaboration and license agreement with Astellas which we entered into in February 2011. In December 2012, we made a $12.0 million milestone payment to KHK in connection with the acceptance by the FDA of our NDA filing for tivozanib. We are also required to pay tiered royalty payments on net sales we make of tivozanib in our territory, which range from the low to mid teens as a percentage of net sales. The royalty rate escalates within this range based on increasing tivozanib sales. Our royalty payment obligations in a particular country in our territory begin on the date of the first commercial sale of tivozanib in that country, and end on the later of 12 years after the date of first commercial sale of tivozanib in that country or the date of the last to expire of the patents covering tivozanib that have been issued in that country. In the event we sublicense the rights licensed to us under the license agreement, we are required to pay KHK a specified percentage of any amounts we receive from any third party sublicensees, other than amounts we receive in respect of research and development funding or equity investments, subject to certain limitations.

***Astellas Pharma***

In February 2011, we entered into a collaboration and license agreement with Astellas and certain of its indirect wholly-owned subsidiaries in connection with which we and Astellas made plans to develop and seek to commercialize tivozanib for the treatment of a broad range of cancers. On February 12, 2014, Astellas exercised its right to terminate the agreement, as a result of the limited scope of development for tivozanib moving forward. The termination of the agreement will be effective August 11, 2014, at which time tivozanib rights will be returned to us. In accordance with the agreement, committed development costs, including the costs of winding own discontinued tivozanib clinical development programs, will be shared equally. There are no refund provisions in the agreement.

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Under the terms of the collaboration agreement, we and Astellas shared responsibility for continued development and commercialization of tivozanib in the United States, Canada and Mexico, which we refer to collectively as North America, and Europe under the joint development plan and joint commercialization plan, respectively. Throughout the rest of the world (which excludes North America, Europe and Asia), which we refer to as the royalty territory, Astellas had an exclusive, royalty-bearing license to develop and commercialize tivozanib.

In connection with the agreement, we received an initial cash payment of $125.0 million, comprised of a $75.0 million license fee and $50.0 million in research and development funding, both of which are non-creditable and non-refundable against any amounts due under the collaboration agreement. We retained net proceeds of approximately $97.6 million of the initial cash payment from Astellas, after payments to KHK and strategic, legal and financial advisors. In December 2012, we received a $15.0 million milestone payment from Astellas in connection with the acceptance by the FDA of our NDA filing for tivozanib for the treatment of patients with advanced RCC. We have elected to recognize all milestone payments as revenue once the milestones have been triggered if the milestone is deemed to be substantive.

We are accounting for the joint development and commercialization activities in North America and Europe as a joint risk-sharing collaboration in accordance with Accounting Standards Codification, or ASC, 808 *Collaborative Arrangements*. In addition, these joint development and commercialization activities were not deemed to be separate deliverables under the agreement with Astellas.

Payments from Astellas with respect to Astellas share of tivozanib development and commercialization costs incurred by the Company pursuant to the joint development plan are recorded as a reduction to research and development expense and general and administrative expense in the accompanying consolidated financial statements due to the joint risk-sharing nature of the activities in North America and Europe. As a result of the cost-sharing provisions in the Astellas Agreement, the Company reduced research and development expense by $15.8 million, $34.1 million and $26.7 million during the years ended December 31, 2013, 2012, and 2011, respectively. The Company also reduced general and administrative expense by $2.8 million, $3.3 million, and $1.2 million during the years ended December 31, 2013, 2012 and 2011, respectively, as a result of the cost-sharing provisions in the Astellas Agreement. The net amount due to the Company from Astellas pursuant to the cost-sharing provisions was $1.0 million at December 31, 2013.

Activities under the agreement with Astellas outside of the joint development and commercialization activities in North America and Europe were evaluated under ASC 605-25 *Revenue Recognition Multiple Element Arrangements*, or ASC 605-25, to determine if they represented a multiple element revenue arrangement. The agreement with Astellas includes the following deliverables outside of the joint development and commercialization activities in North America and Europe: a co-exclusive license to develop and commercialize tivozanib in North America and Europe; a royalty-bearing license to develop and commercialize tivozanib in the royalty territory, which includes our obligation to provide access to clinical and regulatory information resulting from the activities in North America and Europe to Astellas for its development and commercialization of tivozanib in the royalty territory; and our obligation to supply clinical material to Astellas for development of tivozanib in the royalty territory. The co-exclusive license in North America and Europe is not sublicensable. Astellas has the right to sublicense the exclusive royalty-bearing license to develop and commercialize tivozanib in the royalty territory. Our obligation to provide access to clinical and regulatory information as part of the royalty territory deliverable includes the obligation to provide access, upon request, to all clinical data, regulatory filings, safety data and manufacturing data to Astellas for use in the development and commercialization of tivozanib in the royalty territory. The obligation to supply clinical material to Astellas for development in the royalty territory includes supplying such clinical material in accordance with current good manufacturing practices applicable to clinical materials and other relevant regulatory authority requirements, upon request, for the development of tivozanib in the royalty territory. All of these deliverables were deemed to have stand-alone value and to meet the criteria to be accounted for as separate units of accounting under ASC 605-25. ASC 605-25 establishes a selling price hierarchy for determining the selling price of a deliverable, which includes: (1) vendor-specific objective evidence if available; (2) third-party evidence if vendor-specific objective

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evidence is not available; and (3) estimated selling price if neither vendor-specific objective evidence nor third-party evidence is available. We allocated the up-front consideration of $125 million to the deliverables based on our best estimate of selling price of each deliverable using the relative selling price method as we did not have vendor specific objective evidence or third-party evidence for such deliverables. Our best estimate of selling price considered discounted cash flow models, the key assumptions of which included the market opportunity for commercialization of tivozanib in North America and Europe and in the royalty territory, the development costs and market opportunity for the expansion of tivozanib into other solid tumor types, and the time to commercialization of tivozanib for all potential oncology indications. We allocated $120.2 million of the up-front consideration from Astellas to the co-exclusive license in North America and Europe and $4.8 million of the up-front consideration from Astellas to the combined deliverable representing a royalty-bearing license to develop and commercialize tivozanib in the royalty territory along with our obligation to provide access to clinical and regulatory information resulting from the activities in North America and Europe to Astellas for its use in the royalty territory. The relative selling price for our obligation to supply clinical material to Astellas for development in the royalty territory had *de minimis* value.

We recorded the $120.2 million relative selling price of the co-exclusive license granted in North America and Europe as collaboration revenue during the three months ended March 31, 2011 upon delivery of the license, and deferred approximately $4.8 million of revenue representing the relative selling price of the royalty-bearing license to develop and commercialize tivozanib in the royalty territory along with our obligation to provide access to clinical and regulatory information resulting from the activities in North America and Europe to Astellas for its use in the royalty territory. We are recording the $4.8 million ratably over the period of our performance through April 2022, the remaining patent life of tivozanib. We estimated the period of performance considering that we plan to develop tivozanib with Astellas in several indications, including in breast cancer and colorectal cancer and potentially in other cancer indications. The clinical development of tivozanib in these indications is in earlier stages of development and, as a result, the clinical development timeline is uncertain and is expected to change as we obtain additional clinical data in these indications. As a result, we estimated the period of performance as the remaining patent life of tivozanib as it represents the longest period over which development of tivozanib could occur. We reassess the period of performance at each reporting period. We recorded approximately $0.4 million of revenue associated with the Royalty Territory Deliverable during each of the years ended December 31, 2013, 2012 and 2011. We expect to adjust its estimate of the expected period of performance in the first quarter of 2014 as a result of Astellas decision to terminate the agreement effective August 2014.

***Biogen Idec***

In March 2009, we entered into an exclusive option and license agreement with Biogen Idec, regarding the development and commercialization of our discovery-stage ErbB3-targeted antibodies for the potential treatment and diagnosis of cancer and other diseases in humans outside of North America. Under the agreement, we are responsible for developing ErbB3 antibodies through completion of the first phase 2 clinical trial designed in a manner that, if successful, will generate data sufficient to support advancement to a phase 3 clinical trial. Until a specified time after we complete this phase 2 clinical trial and deliver to Biogen Idec a detailed data package containing the results thereof, Biogen Idec may elect to obtain (1) a co-exclusive (with us) worldwide license, including the right to grant sublicenses, under our relevant intellectual property to develop and manufacture ErbB3 antibody products, and (2) an exclusive license, including the right to grant sublicenses, under our relevant intellectual property, to commercialize ErbB3 antibody products in all countries in the world other than North America. We retain the exclusive right to commercialize ErbB3 antibody products in North America.

We account for the Biogen Idec arrangement pursuant to ASC 605-25. The deliverables under the arrangement include an option for a co-exclusive, worldwide license to develop and manufacture ErbB3 antibody products and an option for an exclusive license to commercialize ErbB3 antibody products in all countries in the world other than North America. We determined that these deliverables did not have standalone value due to the fact that the program was still in preclinical development and required our experience to advance development of the product. As such, we determined that the agreement should be accounted for as one unit of accounting.

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Under the terms of the agreement, Biogen Idec paid us an up-front cash payment of $5.0 million in March 2009, which is being amortized over the period of our substantial involvement, defined as the patent life of the development candidate. In addition, Biogen Idec purchased 7,500,000 shares of series E convertible preferred stock at a per share price of $4.00, resulting in gross proceeds to us of $30.0 million. We determined that the price of $4.00 paid by Biogen Idec represented a premium of $1.09 per share over the fair value of the series E convertible preferred stock of $2.91 as calculated by us in our retrospective stock valuation; accordingly, we are recognizing the premium of $8.2 million as revenue on a straight-line basis over the period of substantial involvement. In connection with the initial public offering we consummated in March 2010 and the related 1:4 reverse stock split of our common stock, each four shares of outstanding series E convertible preferred stock were converted into one share of common stock.

In June 2009, we earned a $5.0 million milestone payment for achievement of the first pre-clinical discovery milestone under the agreement. Since the $5.0 million milestone payment earned in June 2009 was related to a near-term milestone and not considered to be substantive, the revenue is being amortized as additional license revenue over our period of substantial involvement. We also earned a second $5.0 million milestone payment upon selection of a development candidate in March 2010 and a third $5.0 million milestone payment based on achieving the Good Laboratory Practices, or GLP, toxicology initiation milestone in June 2011. These milestones were considered substantive and were included in revenue for the quarters ended March 31, 2010 and June 30, 2011, respectively. We could also receive an option exercise fee of $5.0 million and regulatory milestone payments of up to $45.0 million in the aggregate if Biogen Idec exercises its option to obtain exclusive rights to commercialize ErbB3 antibody products in its territory. The first regulatory milestone we may receive pursuant to this agreement of $25.0 million is due upon the receipt of the first regulatory approval of a licensed product from the EMA. We do not expect to achieve this milestone in the near future.

***OSI Pharmaceuticals***

In September 2007, we entered into a collaboration and license agreement with OSI Pharmaceuticals, Inc. (a wholly-owned subsidiary of Astellas US Holding Inc., a holding company owned by Astellas Pharma Inc.), or OSI. This strategic partnership is primarily focused on the identification and validation of genes and targets involved in the processes of epithelial-mesenchymal transition or mesenchymal-epithelial transition, in cancer. In July 2009, we expanded our strategic partnership with OSI and we granted OSI a non-exclusive license to use our proprietary bioinformatics platform, and non-exclusive, perpetual licenses to use bioinformatics data and to use a proprietary gene index related to a specific target pathway.

Under the July 2009 expanded agreement, if all applicable milestones are achieved, all remaining payments for the successful achievement of discovery, development and commercialization milestones under the agreement could total, in the aggregate, over $46.0 million, comprised of approximately (i) $8.4 million in substantive milestone payments upon achievement of specified clinical and development milestone events, (ii) $20.7 million in substantive milestone payments upon achievement of specified regulatory milestone events, and (iii) $17.5 million in milestone payments upon the achievement of specified sales events. In addition, we are eligible to receive up to $24.0 million in biomarker-related milestones.

In March 2011, we earned $1.5 million related to deliverables and research milestones under the agreement. In May 2012, we earned a patent-related milestone payment of $0.3 million upon filing of a patent application by OSI, and we also earned a clinical and development milestone payment of $0.8 million for commencement by OSI of GLP toxicology studies.

The next milestone payment that we may receive pursuant to this agreement is a $2.0 million clinical and development milestone for phase 1 clinical trial dosing. The next regulatory milestone payment we may receive pursuant to this agreement is $7.0 million to be achieved for the filing of an NDA with the FDA. We do not expect to achieve either of these milestones in the near future.

The collaboration and license agreement will remain in effect until the expiration of both OSI s royalty obligations to us, and our royalty obligations to OSI, in each case determined on a product-by-product and

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country-by-country basis. Either party has the right to terminate the agreement in connection with a material breach of the agreement by the other party that remains uncured for a specified cure period. If OSI elects to terminate the agreement due to our material breach, we will lose our rights to certain intellectual property developed under the strategic partnership, and OSI will have the right to reduce its milestone and royalty obligations to us by the amount of monetary damages suffered by OSI as a direct result of our material breach. If we elect to terminate the agreement due to OSI s material breach of the agreement, OSI s licenses to all targets and products will terminate and revert to us, subject to our continued milestone and royalty payment obligations to OSI, which we will have the right to reduce by the amount of monetary damages we suffer as a direct result of OSI s breach. OSI may elect to terminate the agreement with respect to a particular collaboration target and all its associated products, in which event OSI s license to such target and products terminates and reverts to us, subject to our continued milestone and royalty payment obligations to OSI. For a specified time period after such termination, OSI and its affiliates may not, nor may they grant third parties the right to, conduct research or development activities with respect to the terminated collaboration target

All milestone payments earned prior to July 2011 were for selection of targets, delivery of models, delivery of tumor archives or delivery of cell lines. These milestones were not considered to be substantive and at risk, therefore, the milestone payments were deferred and were recognized on a straight-line basis over the remaining estimated period of substantial involvement, which ended in July 2011. Upon commercialization of products which were part of the research program under the agreement, we are eligible to receive tiered royalty payments on sales of products by OSI, its affiliates and sublicensees.

***Centocor Ortho Biotech***

In May 2011, we entered into an exclusive license agreement with Centocor Ortho Biotech Inc., or Centocor, for the worldwide development and commercialization of antibodies, including our internally-discovered antibodies targeting the Recepteur d Origine Nantais, or RON receptor, including the grant to Centocor of an exclusive, worldwide license to our proprietary RON-driven tumor models. On September 7, 2012, we received notice from Centocor of termination of the Centocor License Agreement, effective on December 6, 2012, at which point all rights and the responsibility for future research and development, manufacturing and commercialization activities and costs of the RON antibody program granted to Centocor under the Centocor License Agreement returned to us.

In connection with the Centocor license agreement, we received a one-time cash payment in the amount of $7.5 million and a separate equity investment in the amount of approximately $7.5 million through the purchase by Johnson & Johnson Development Corporation, an affiliate of Centocor, of 438,340 newly issued shares of our common stock at a purchase price of $17.11 per share which reflected the average of the daily volume weighted average prices for our common stock for the 30 consecutive trading days ending on May 26, 2011. This weighted average sales price of $17.11 per share resulted in a $1.22 per share discount from the May 31, 2011 closing price of $18.33 per share, or a discount of $534,775 from the fair market value of the common stock on the effective date of the Centocor license agreement. We determined this transaction was not within the scope of ASC 605-25 and, accordingly, we recorded the sale of common stock to Johnson & Johnson Development Corporation at fair value based on the closing price of our stock on May 31, 2011 of $18.33 per share. Centocor also funded certain research which we conducted during the term of the Centocor License Agreement, which, as noted above, terminated on December 6, 2012.

***Schering-Plough Corporation (now Merck)***

In March 2007, we entered into an agreement with Schering-Plough Corporation (now Merck), through its subsidiary Schering Corporation, acting through its Schering-Plough Research Institute division, under which we granted Merck exclusive, worldwide rights to develop and commercialize all of our monoclonal antibody antagonists of HGF, including ficlatuzumab, for therapeutic and prophylactic use in humans and for veterinary use. We also granted Merck an exclusive, worldwide license to related biomarkers for diagnostic use. Merck was responsible for all costs related to the clinical development of ficlatuzumab and clinical and commercial

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manufacturing. As of December 27, 2010, the effective date of the termination of our collaboration with Merck relating to ficlatuzumab, we became responsible for all process development and all manufacturing of ficlatuzumab for future development and commercialization. In March 2011, in connection with the transition of responsibility for the ficlatuzumab program from Merck back to us, we made a $10.2 million payment to Merck for the purchase of a supply of ficlatuzumab to support ongoing clinical studies and expensed such payment during the year ended December 31, 2011, as title passed to us.

**Financial Overview**

Over the past several months, we have initiated several cost containment activities that have reduced operating expenses by approximately 50% on a quarter-over-quarter basis. With these activities in place, we were able to finish 2013 with $118.5 million in cash, cash equivalents and marketable securities, providing us the financial leverage to execute our strategy going forward.

***Revenue***

To date, we have not generated any revenue from product sales. All of our revenue to date has been derived from license fees, milestone payments, premium over the fair value of convertible preferred shares sold to our strategic partners, and research and development payments received from our strategic partners.

In the future, we may generate revenue from a combination of product sales, license fees, milestone payments and research and development payments in connection with strategic partnerships, and royalties resulting from the sales of products developed under licenses of our intellectual property. We expect that any revenue we generate will fluctuate from quarter to quarter as a result of the timing and amount of license fees, research and development reimbursements, milestone and other payments received under our strategic partnerships, and the amount and timing of payments that we receive upon the sale of our products, to the extent any are successfully commercialized. We do not expect to generate revenue from product sales in the near term. If we or our strategic partners fail to complete the development of our drug candidates in a timely manner or obtain regulatory approval for them, our ability to generate future revenue, and our results of operations and financial position, would be materially adversely affected.

***Research and Development Expenses***

Research and development expenses consist of expenses incurred in connection with the discovery and development of our product candidates. These expenses consist primarily of:

- employee-related expenses, which include salaries, benefits and stock-based compensation expense;
- expenses incurred under agreements with contract research organizations, investigative sites and consultants that conduct our clinical trials and a substantial portion of our preclinical studies;
- the cost of acquiring and manufacturing clinical trial materials, as well as commercial materials prior to our anticipated launch of tivozanib;
- the cost of winding down discontinued tivozanib clinical development programs;
- facilities, depreciation and other allocated expenses, which include direct and allocated expenses for rent and maintenance of facilities and equipment, and depreciation of fixed assets;
- license fees for, and milestone payments related to, in-licensed products and technology; and

costs associated with outsourced development activities, regulatory approvals and medical affairs.

We expense research and development costs as incurred. Nonrefundable advance payments for goods and services that will be used in future research and development activities are expensed when the activity has been performed or when the goods have been received rather than when the payment is made.

Research and development expenses are net of amounts reimbursed under our agreement with Astellas for Astellas share of development costs incurred by us under our joint development plan with Astellas.

Conducting a significant amount of research and development is central to our business model. Product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later stage clinical trials. We

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plan to continue to expend considerable resources on our research and development expenses as we seek to complete development of product candidates. We expect our total research and development expenses to decrease in comparison to prior periods as we continue to wind-down our tivozanib development program and focus our efforts on potential first-in-class opportunities that are currently in earlier stages of development, such as our AV-380 program.

We track external development expenses and personnel expense on a program-by-program basis and allocate common expenses, such as scientific consultants and laboratory supplies, to each program based on the personnel resources allocated to such program. Facilities, depreciation, stock-based compensation, research and development management and research and development support services are not allocated among programs and are considered overhead. We expect our overhead expenses to decrease in future periods as we consolidate our leased facilities in 2014. Below is a summary of our research and development expenses for the years ended December 31, 2013, 2012 and 2011:

| | Years Ended December 31, | | |
|---|---|---|---|
| | 2013 | 2012 | 2011 |
| | (in thousands) | | |
| Tivozanib | $ 25,060 | $ 41,183 | $ 48,158 |
| Ficlatuzumab | 12,573 | 13,097 | 24,165 |
| AV-203 | 5,698 | 8,247 | 6,362 |
| AV-380 Program in Cachexia | 4,308 | 2,560 | 1,673 |
| Other pipeline programs | 1,299 | 4,769 | 4,980 |
| Platform collaborations | | 1,340 | 2,632 |
| Other research and development | 376 | 1,027 | 1,367 |
| Overhead | 19,154 | 19,135 | 12,398 |
| Total research and development expenses | $ 68,468 | $ 91,358 | $ 101,735 |

*Tivozanib*

On November 27, 2012, the U.S. Food and Drug Administration, or FDA, accepted for filing our New Drug Application, or NDA, for tivozanib, our lead product candidate, with the proposed indication for the treatment of patients with advanced renal cell carcinoma, or RCC. On May 2, 2013, we were informed by the FDA that its Oncologic Drugs Advisory Committee, or ODAC, voted 13 to 1 that our NDA for investigational agent tivozanib did not demonstrate a favorable benefit-to-risk evaluation for the treatment of advanced RCC in an adequate and well-controlled trial. We subsequently announced on June 10, 2013 that we had received a complete response letter from the FDA informing us that the FDA will not approve in its present form our NDA for AVEO s investigational agent tivozanib for the treatment of patients with advanced RCC.

In 2012, we announced detailed data from our global, phase 3 clinical trial comparing the efficacy and safety of tivozanib with Nexavar® (sorafenib), an approved therapy, for first-line treatment in advanced RCC, which we refer to as the TIVO-1 (Tivozanib Versus Sorafenib in 1st line Advanced RCC) study. The TIVO-1 study was conducted in patients with advanced clear cell RCC who had undergone a prior nephrectomy (kidney removal) and who had not received any prior VEGF- or mTOR-targeted therapy. This phase 3 trial met its primary endpoint for progression-free survival.

We also evaluated tivozanib in two clinical trials, including BATON-CRC, a phase 2 clinical trial conducted by our partner, Astellas, to evaluate tivozanib in combination with mFOLFOX6 compared to Avastin in combination with mFOLFOX6 as first-line therapy in patients with advanced metastatic colorectal cancer, or CRC, and BATON-BC, a phase 2 clinical trial to evaluate the efficacy of tivozanib in combination with paclitaxel compared to placebo in combination with paclitaxel in patients with locally recurrent or metastatic triple negative breast cancer who have received no prior systemic therapy, for which we initiated enrollment in the fourth quarter of 2012. On January 30, 2014, we announced that we and Astellas jointly decided to discontinue the BATON-BC clinical trial, due to insufficient enrollment. On December 13, 2013, we announced that the BATON-CRC study was unlikely to meet the primary endpoint in the intent-to-treat population and on February 14, 2014, we announced that we and Astellas agreed to discontinue this study.

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We entered into a collaboration and license agreement with Astellas in February 2011, pursuant to which we and Astellas shared responsibility for tivozanib, including expenses for continued development and commercialization of tivozanib, in North America and Europe. Astellas was responsible for continued development and commercialization of tivozanib outside of North America, Europe and Asia. All costs associated with each party s conduct of development and commercialization activities in North America and Europe, and any resulting profits or losses, are shared equally between the parties pursuant to a joint development plan. We have included $15.8 million, $34.1 million and $26.7 million in research and development cost reimbursements as a reduction in tivozanib-related expenses for the years ended December 31, 2013, 2012 and 2011, respectively. We also made a $22.5 million payment to KHK during the year ended December 31, 2011 related to the up-front license payment received under the collaboration and license agreement with Astellas which we entered into in February 2011. In December 2012, we made a $12.0 million milestone payment to KHK in connection with the acceptance of our NDA filing for tivozanib. On February 12, 2014, as a result of the limited scope of development for tivozanib moving forward, Astellas elected to terminate our collaboration and license agreement pursuant to its terms. Pursuant to the terms of the Agreement, the termination will be effective 180 days from the date of the notice, or August 11, 2014, at which time tivozanib rights will be returned to us. Committed development costs, including the costs of winding down discontinued tivozanib clinical development programs, will be shared equally.

With the termination of our partnership with Astellas, we do not plan to commit to further development of tivozanib at this time. We and Astellas will share the costs of winding down the discontinued tivozanib clinical development programs. We expect our share of tivozanib wind down costs to be approximately $12.0 million during 2014. The actual amount that we will incur may differ from this estimate depending upon our ability to expedite the termination of our existing obligations while continuing to satisfy our patient and regulatory requirements. As a result of the wind down activities, we expect research and development expenses related to tivozanib to decrease in the near-term as compared to prior periods. Upon regaining the rights for the development and commercialization of tivozanib in August 2014 from Astellas, we will consider further partnering options based on what we believe is a favorable risk and benefit profile which could provide benefit to patients in certain indications.

*Ficlatuzumab*

In September 2012, we announced detailed data from our phase 2 clinical trial comparing the combination of ficlatuzumab and gefitinib to gefitinib monotherapy in previously untreated Asian subjects with non-small cell lung cancer. In the intent-to-treat population, the addition of ficlatuzumab to gefitinib did not result in statistically significant improved overall response rate. We are currently exploring potential partnership opportunities to support further clinical research of ficlatuzumab.

In November 2011, we entered into an agreement with Boehringer Ingelheim for large-scale process development and clinical manufacturing of ficlatuzumab. Boehringer Ingelheim will produce ficlatuzumab at its biopharmaceutical site in Fremont, CA. We have retained all rights to the development and commercialization of ficlatuzumab. Due to the unpredictable nature of preclinical and clinical development, we are unable to estimate with any certainty the costs we will incur in the future development of ficlatuzumab.

*AV-203*

Through the use of our Human Response Platform, we have identified antibodies that have been shown to be potent and selective inhibitors of ErbB3 in preclinical studies. In preclinical testing, these antibodies have significantly inhibited the growth of a number of different tumors, including in breast, prostate and pancreatic cancers. We have granted Biogen Idec an exclusive option to co-develop (with us) and commercialize our ErbB3-targeted antibodies for the potential treatment and diagnosis of cancer and other diseases outside of North America. Upon the selection of AV-203 as a development candidate in the first quarter of 2010, we earned a $5.0 million milestone payment from Biogen Idec, and we earned an additional $5.0 million milestone payment in

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June 2011 based on initiation of a GLP toxicology study. In May 2012, we announced the initiation of a phase 1 clinical trial examining the safety, tolerability and preliminary efficacy of AV-203 along with exploratory biomarkers in patients with metastatic or advanced solid tumors. Subject to our ability to regain certain rights from Biogen Idec, we will seek to resume clinical development with a third party. Due to the unpredictable nature of preclinical and clinical development and given the early stage of this program, we are unable to estimate with any certainty the costs we will incur in the future development of AV-203.

*AV-380 Program in Cachexia*

In 2012, we initiated a program focusing on cachexia, which we now refer to as our AV-380 program. Cachexia is a serious and common complication of advanced cancer and a number of chronic diseases that is characterized by symptoms of unintentional weight loss, progressive muscle wasting, and a loss of appetite. Cancer cachexia is defined as a multi-factorial syndrome of involuntary weight loss characterized by an ongoing loss of skeletal muscle mass (with or without loss of fat mass) that cannot be fully reversed by conventional nutritional support and leads to progressive functional impairment. The pathophysiology is characterized by a negative protein and energy balance driven by a variable combination of reduced food intake and abnormal metabolism. Other symptoms of cachexia include anemia, breathing difficulties, edema, insulin resistance, muscle weakness/asthenia, and fatigue.

In connection with our cachexia program, we have in-licensed certain patents and patent applications from St. Vincent s Hospital in Sydney, Australia. In December 2013, we presented preclinical data at the 7th Annual Cachexia Conference in Kobe, Japan, demonstrating that growth differentiating factor-15, or GDF-15, induces anorexia and cachexia in mice, suggesting GDF-15 to be a novel target for cachexia. In 2013, we initiated cell line development of AV-380, an antibody discovered using our Human Response Platform, and nominated AV-380 as the development candidate for the program. Appropriate IND-enabling efforts, including cell line development, have been initiated to prepare AV-380 for future clinical development. We expect to initiate clinical development of AV-380 in the second half of 2015.

As we focus our efforts on our cachexia program, we expect our costs associated with this program to increase.

*Other Pipeline Programs*

The expenses related to our other pipeline programs are expected to decrease as a result of our strategic decision to prioritize certain product candidates currently in clinical or preclinical development. Future research and development costs for our pipeline programs are not reasonably certain because such costs are dependent on a number of variables, including the success of preclinical studies and the identification of other potential candidates.

*Platform Collaborations*

On September 7, 2012, we received notice from Centocor of termination effective on December 6, 2012, of its license agreement with us, at which point all rights to and the responsibility for future research and development of the RON antibody program returned to us. Centocor funded certain translational research studies using our proprietary Human Response Platform related to the RON program. The related expenses were captured as a cost of the agreement with Centocor.

We also performed research services for OSI using our Human Response Platform under a collaboration and license agreement with OSI that concluded in July 2011. The related expenses, including personnel and related expenses, were captured as a cost of the agreement with OSI Pharmaceuticals. Expenses incurred under these agreements with Centocor and OSI were fully supported by the revenue from these agreements.

*Other Research and Development*

Other research and development includes expenses related to our Human Response Platform, which are not specifically related to a particular product candidate or a specific strategic partnership.

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*Uncertainties of Estimates Related to Research and Development Expenses*

The process of conducting preclinical studies and clinical trials necessary to obtain FDA approval for each of our product candidates is costly and time-consuming. The probability of success for each product candidate and clinical trial may be affected by a variety of factors, including, among others, the quality of the product candidate s early clinical data, investment in the program, competition, manufacturing capabilities and commercial viability.

At this time, we cannot reasonably estimate or know the nature, specific timing and estimated costs of the efforts that will be necessary to complete the development of our product candidates, or the period, if any, in which material net cash inflows may commence from sales of any approved products. This uncertainty is due to the numerous risks and uncertainties associated with developing drugs, including the uncertainty of:

- the scope, progress, results and costs of preclinical development, laboratory testing and clinical trials for any product candidate;
- the progress and results of our clinical trials;
- the costs related to the winding down of the discontinued tivozanib clinical development programs;
- the costs, timing and outcome of regulatory review of our product candidates;
- our ability to establish and maintain strategic partnerships, the terms of those strategic partnerships and the success of those strategic partnerships, if any, including the timing and amount of payments that we might receive from strategic partners;
- the emergence of competing technologies and products and other adverse market developments; and
- the costs of preparing, filing and prosecuting patent applications and maintaining, enforcing and defending intellectual property-related claims.

As a result of the uncertainties associated with developing drugs, including those discussed above, we are unable to determine the duration and completion costs of current or future clinical stages of our product candidates, or when, or to what extent, we will generate revenues from the commercialization and sale of any of our product candidates. Development timelines, probability of success and development costs vary widely. We anticipate that we will make determinations as to which additional programs to pursue and how much funding to direct to each program on an ongoing basis in response to the scientific and clinical success, if any, of each product candidate, as well as ongoing assessment of each product candidate s commercial potential. We will need to raise substantial additional capital in the future in order to fund the development of our preclinical and clinical product candidates.

***General and Administrative Expenses***

General and administrative expenses consist principally of salaries and related costs for personnel in executive, finance, corporate development, marketing, information technology, legal and human resource functions. Other general and administrative expenses include facility costs not otherwise included in research and development expenses, patent filing, prosecution and defense costs and professional fees for legal, consulting, pre-commercialization activities, auditing and tax services.

We anticipate that our general and administrative expenses will decrease due to the elimination of activities and infrastructure supporting tivozanib. This decrease may be partially offset by an increase in legal costs associated with the ongoing shareholder litigation and SEC investigation described in this report under the heading Legal Proceedings above in Part I Item 3.

***Interest Income and Interest Expense***

Interest income consists of interest earned on our cash, cash equivalents and marketable securities. The primary objective of our investment policy is capital preservation.

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Interest expense consists of interest, amortization of debt discount, and amortization of deferred financing costs associated with our loans payable.

***Income Taxes***

We calculate our provision for income taxes on ordinary income based on our projected annual tax rate for the year. We recorded net income for the first time during the year ended December 31, 2011. We utilized certain of our net operating loss carryforwards to offset taxable income, which resulted in an effective tax rate of 0% for the year ended December 31, 2011. As such, we did not record an income tax provision for the year ended December 31, 2011. We recorded a loss for the years ended December 31, 2013 and 2012, and since we maintain a full valuation allowance on all of our deferred tax assets, we have recorded no income tax provision or benefit during the years ended December 31, 2013 and 2012.

**Critical Accounting Policies and Significant Judgments and Estimates**

Our discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities in our financial statements. On an ongoing basis, we evaluate our estimates and judgments, including those related to revenue recognition, accrued clinical expenses, and stock-based compensation. We base our estimates on historical experience, known trends and events and various other factors that we and our management believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Our significant accounting policies are described in more detail in the notes to our consolidated financial statements appearing elsewhere in this report. We believe the following accounting policies to be most critical to the judgments and estimates used in the preparation of our consolidated financial statements.

***Revenue Recognition***

Our revenues are generated primarily through collaborative research, development and commercialization agreements. The terms of these agreements generally contain multiple elements, or deliverables, which may include (i) licenses, or options to obtain licenses, to our technology, (ii) research and development activities to be performed on behalf of the collaborative partner, and (iii) in certain cases, services in connection with the manufacturing of pre-clinical and clinical material. Payments to us under these arrangements typically include one or more of the following: non-refundable, up-front license fees; option exercise fees; funding of research and/or development efforts; milestone payments; and royalties on future product sales.

When evaluating multiple element arrangements, we consider whether the deliverables under the arrangement represent separate units of accounting. This evaluation requires subjective determinations and requires management to make judgments about the individual deliverables and whether such deliverables are separable from the other aspects of the contractual relationship. In determining the units of accounting, management evaluates certain criteria, including whether the deliverables have standalone value, based on the consideration of the relevant facts and circumstances for each arrangement. The consideration received is allocated among the separate units of accounting using the relative selling price method, and the applicable revenue recognition criteria are applied to each of the separate units.

We determine the estimated selling price for deliverables within each agreement using vendor-specific objective evidence, or VSOE, of selling price, if available, third-party evidence, or TPE, of selling price if VSOE is not available, or best estimate of selling price if neither VSOE nor TPE is available. Determining the best estimate of selling price for a deliverable requires significant judgment. We typically use best estimate of selling

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price to estimate the selling price for licenses to our proprietary technology, since we often do not have VSOE or TPE of selling price for these deliverables. In those circumstances where we utilize best estimate of selling price to determine the estimated selling price of a license to our proprietary technology, we consider market conditions as well as entity-specific factors, including those factors contemplated in negotiating the agreements as well as internally developed models that include assumptions related to the market opportunity, estimated development costs, probability of success and the time needed to commercialize a product candidate pursuant to the applicable license. In validating our best estimate of selling price, we evaluate whether changes in the key assumptions used to determine the best estimate of selling price will have a significant effect on the allocation of arrangement consideration between multiple deliverables.

We typically receive up-front, non-refundable payments when licensing our intellectual property in conjunction with a research and development agreement. When management believes the license to our intellectual property does not have stand-alone value from the other deliverables to be provided in the arrangement, we generally recognize revenue attributed to the license on a straight-line basis over our contractual or estimated performance period, which is typically the term of our research and development obligations. If management cannot reasonably estimate when our performance obligation ends, then revenue is deferred until management can reasonably estimate when the performance obligation ends. When management believes the license to our intellectual property has stand-alone value, we generally recognize revenue attributed to the license upon delivery. The periods over which revenue should be recognized are subject to estimates by management and may change over the course of the research and development agreement. Such a change could have a material impact on the amount of revenue we record in future periods.

Payments or reimbursements resulting from our research and development efforts for those arrangements where such efforts are considered as deliverables are recognized as the services are performed and are presented on a gross basis so long as there is persuasive evidence of an arrangement, the fee is fixed or determinable, and collection of the related receivable is reasonably assured. Amounts received prior to satisfying the above revenue recognition criteria are recorded as deferred revenue in the accompanying balance sheets.

At the inception of each agreement that includes milestone payments, we evaluate whether each milestone is substantive and at risk to both parties on the basis of the contingent nature of the milestone. This evaluation includes an assessment of whether (a) the consideration is commensurate with either (1) the entity s performance to achieve the milestone, or (2) the enhancement of the value of the delivered item(s) as a result of a specific outcome resulting from the entity s performance to achieve the milestone, (b) the consideration relates solely to past performance, and (c) the consideration is reasonable relative to all of the deliverables and payment terms within the arrangement. We evaluate factors such as the scientific, regulatory, commercial and other risks that must be overcome to achieve the respective milestone, the level of effort and investment required to achieve the respective milestone and whether the milestone consideration is reasonable relative to all deliverables and payment terms in the arrangement in making this assessment. The conclusion as to whether milestone payments are substantive involves management judgment regarding the factors noted above.

We classify each of our milestones into one of four categories: (i) clinical and development milestones, (ii) regulatory milestones, (iii) commercial milestones, and (iv) patent-related milestones. Clinical and development milestones are typically achieved when a product candidate advances into a defined phase of clinical research or completes such phase. For example, a milestone payment may be due to us upon the initiation of a phase 3 clinical trial for a new indication, which is the last phase of clinical development and could eventually contribute to marketing approval by the FDA or other regulatory authorities. Regulatory milestones are typically achieved upon acceptance of the submission for marketing approval of a product candidate or upon approval to market the product candidate by the FDA or other regulatory authorities. For example, a milestone payment may be due to us upon the FDA s acceptance of an NDA. Commercial milestones are typically achieved when an approved pharmaceutical product reaches certain defined levels of net sales by the licensee, such as when a product first achieves global sales or annual sales of a specified amount. Patent-related milestones are typically achieved when a patent application is filed or a patent is issued with respect to certain intellectual property related to the applicable collaboration.

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Revenues from clinical and development, regulatory and patent-related milestone payments, if the milestones are deemed substantive and the milestone payments are nonrefundable, are recognized upon successful accomplishment of the milestones. We have concluded that the clinical and development, regulatory and patent-related milestones pursuant to our current research and development arrangements are substantive. Milestones that are not considered substantive are accounted for as license payments and recognized on a straight-line basis over the remaining period of performance. Revenues from commercial milestone payments are accounted for as royalties and are recorded as revenue upon achievement of the milestone, assuming all other revenue recognition criteria are met.

***Accrued Clinical Expenses***

As part of the process of preparing our financial statements, we are required to record an estimate of our accrued expenses. This process involves reviewing open contracts and purchase orders, and communicating with our applicable personnel to identify services that have been performed on our behalf and estimating the level of service performed and the associated cost incurred for such services when we have not yet been invoiced or otherwise notified of the actual costs. The majority of our service providers invoice us monthly in arrears for services performed. We make estimates of our accrued expenses as of each balance sheet date in our financial statements based on facts and circumstances known to us at that time. We periodically confirm the accuracy of our estimates with the service providers and make adjustments if necessary. Examples of estimated accrued clinical expenses include:

- fees paid to contract research organizations in connection with clinical studies;
- fees paid to investigative sites in connection with clinical studies;
- fees paid to contract manufacturers in connection with the production of clinical trial materials; and
- fees paid to vendors in connection with preclinical development activities.

We determine our expenses related to clinical studies based on our estimates of the services received and efforts expended pursuant to contracts with multiple research institutions and contract research organizations that conduct and manage clinical studies on our behalf. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows. Payments under some of these contracts depend on factors such as the successful enrollment of patients and the completion of clinical trial milestones. In accruing service fees, we estimate the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from our estimate, we adjust the accrual accordingly. Although we do not expect our estimates to be materially different from amounts actually incurred, and our estimates have not historically been materially different, our estimates of the status and timing of services performed relative to the actual status and timing of services performed may vary and may result in us reporting amounts that are too high or too low in any particular period. Based on our level of clinical trial expenses as of December 31, 2013, if our previous estimates are 5% too high or too low, this may result in an adjustment to our accrued clinical trial expenses in future periods of approximately $0.3 million.

***Stock-Based Compensation***

Under our stock-based compensation programs, we periodically grant stock options and restricted stock to employees, directors and nonemployee consultants. We also issue shares under an employee stock purchase plan. The fair value of all awards is recognized in our statements of operations over the requisite service period for each award. Awards that vest as the recipient provides service are expensed on a straight-line basis over the requisite service period. Other awards, such as performance-based awards that vest upon the achievement of specified goals, are expensed using the accelerated attribution method if achievement of the specified goals is considered probable. Determining the amount of stock-based compensation to be recorded requires us to develop estimates of fair values of stock options as of the grant date using highly subjective assumptions.

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We use the Black-Scholes option pricing model to value our stock option awards, which requires us to make certain assumptions regarding the expected volatility of our common stock price, the expected term of the option grants, the risk-free interest rate and the dividend yield with respect to our common stock. Our expected stock price volatility is based on an average of our own historical volatility and that of several peer companies. We utilized a weighted average method using our own volatility data for the time that we have been public, along with similar data for peer companies that are publicly traded. For purposes of identifying peer companies, we considered characteristics such as industry, length of trading history, similar vesting terms and in-the-money option status. Due to the lack of available quarterly data for these peer companies and a lack of our own historical data, we elected to use the simplified method for plain vanilla options to estimate the expected term of our stock option grants. Under this approach, the weighted-average expected life is presumed to be the average of the vesting term and the contractual term of the option. The risk-free interest rate used for each grant is based on the U.S. Treasury yield curve in effect at the time of grant for instruments with a similar expected life. We utilize a dividend yield of zero based on the fact that we have never paid cash dividends and have no present intention to pay cash dividends.

During the years ended December 31, 2013, 2012 and 2011, respectively, the assumptions used in the Black-Scholes pricing model for new grants were as follows:

| | Years Ended December 31, | | |
|---|---|---|---|
| | 2013 | 2012 | 2011 |
| Volatility | 64.22%-72.65% | 64.30%-66.05% | 64.37%-65.56% |
| Expected Term (in years) | 5.50-6.25 | 5.50-6.25 | 5.50-6.25 |
| Risk-Free Interest Rates | 1.01%-2.10% | 0.83%-1.33% | 1.09%-2.57% |
| Dividend Yield | | | |

We recognized stock-based compensation expense of approximately $3.9 million, $8.0 million and $5.9 million for the years ended December 31, 2013, 2012, and 2011, respectively. As of December 31, 2013, we had approximately $3.1 million of total unrecognized stock-based compensation expense for stock options, which we expect to recognize over a weighted-average period of approximately 1.8 years.

As of December 31, 2013, we had $0.1 million of total unrecognized stock-based compensation expense related to restricted stock awards granted under our 2010 Stock Incentive Plan. We expect to recognize the expense over a weighted-average period of 0.8 years.

We record compensation expense only for those awards that we ultimately expect will vest. We have performed an historical analysis of option awards that were forfeited prior to vesting and recorded total stock option expense that reflected this estimated forfeiture rate. We cannot currently predict the total amount of stock-based compensation expense to be recognized in any future period because such amounts will depend on levels of stock-based payments granted in the future as well as the portion of the awards that actually vest. Forfeitures are estimated each period and adjusted if actual forfeitures differ from those estimates. Actual forfeitures may differ from our estimates as a result of significant changes in our operations, such as those stemming from our October 2012 and June 2013 restructurings.

We have historically granted stock options at exercise prices that are not less than the fair market value of our common stock.

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**Results of Operations**

***Comparison of Years Ended December 31, 2013 and 2012***

The following tables summarize the results of our operations for each of the years ended December 31, 2013 and 2012, together with the changes in those items in dollars and as a percentage:

| | Years Ended December 31, | | Increase/ | |
|---|---|---|---|---|
| | 2013 | 2012 | (decrease) | % |
| | (in thousands) | | | |
| Revenue | $ 1,293 | $ 19,286 | $ (17,993) | (93)% |
| Operating expenses: | | | | |
| Research and development | 68,468 | 91,358 | (22,890) | (25)% |
| General and administrative | 28,712 | 36,932 | (8,220) | (22)% |
| Restructuring | 8,017 | 2,633 | 5,384 | 204% |
| Total operating expenses | 105,197 | 130,923 | (25,726) | (20)% |
| Loss from operations | (103,904) | (111,637) | 7,733 | (7)% |
| Other (expense) income, net | (123) | 247 | (370) | (150)% |
| Interest expense | (3,127) | (3,501) | 374 | (11)% |
| Interest income | 125 | 497 | (372) | (75)% |
| Net loss | $ (107,029) | $ (114,394) | $ 7,365 | (6)% |

| | Years Ended December 31, | | Increase/ | |
|---|---|---|---|---|
| **Revenue** | 2013 | 2012 | (decrease) | % |
| | (in thousands) | | | |
| Strategic Partner: | | | | |
| Astellas | $ 430 | $ 15,430 | $ (15,000) | (97)% |
| OSI | | 1,000 | (1,000) | (100)% |
| Centocor | | 1,973 | (1,973) | (100)% |
| Biogen Idec | 863 | 863 | | |
| Other | | 20 | (20) | (100)% |
| | $ 1,293 | $ 19,286 | $ (17,993) | (93)% |

***Revenue.*** Revenue for the year ended December 31, 2013 was $1.3 million compared to $19.3 million for the year ended December 31, 2012, a decrease of approximately $18.0 million, or 93%. The decrease was primarily due to revenue recognized during 2012 that did not recur during 2013, including a $15.0 million milestone payment earned under our collaboration agreement with Astellas related to the FDA s acceptance of our NDA filing for tivozanib; $1.0 million in patent-related and clinical and development milestone payments earned under our agreement with OSI; and research funding under our collaboration agreement with Centocor. Revenue during 2013 related to amortization of previously deferred revenue associated with our collaboration agreements with Astellas and Biogen Idec.

***Research and development.*** Research and development expenses for the year ended December 31, 2013 were $68.5 million compared to $91.4 million for the year ended December 31, 2012, a decrease of $22.9 million, or 25%. The decrease is primarily attributable to a net decrease in licensing costs of $6.8 million due primarily to a milestone payment to KHK made upon the acceptance for filing by the FDA of our NDA for tivozanib during 2012; a decrease of $1.3 million in manufacturing costs related primarily to the reduction in scope of tivozanib packaging and distribution activities; a decrease in clinical trial costs of $13.3 million primarily due to the ongoing wind-down of tivozanib trials; a decrease of $16.5 million in salaries, benefits and contract labor following our October 2012 and June 2013 restructurings; and a decrease of $2.8 million in

external research cost

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in line with the decrease in overall research activity. The decrease for 2013 was partially offset by a $2.2 million increase in facility and information technology costs due to additional leased space at 650 East Kendall Street; a $2.9 million increase in outsourced services costs primarily related to the completion of the manufacture of ficlatuzumab material that began in 2012; a decrease of $12.3 million in reimbursements to us by Astellas for tivozanib development costs due to the overall decrease in tivozanib expenses; and an increase in depreciation expense of $1.0 million following the completion of a portion of the build-out of our facility at 650 East Kendall Street.

Included in research and development expenses were stock-based compensation expenses of approximately $2.0 million and $3.6 million for the years ended December 31, 2013 and 2012, respectively.

***General and administrative.*** General and administrative expenses for the year ended December 31, 2013 were $28.7 million compared to $36.9 million for the year ended December 31, 2012, a decrease of $8.2 million, or 22%. The decrease is primarily the result of a $6.5 million decrease in salaries, benefits and other hiring costs following our June 2013 restructuring and a $2.6 million decrease in marketing and consulting costs due to termination of work related to tivozanib pre-commercialization activities. These amounts were partially offset by a $0.9 million increase in facility and information technology costs due to additional leased space at 650 East Kendall Street.

Included in general and administrative expenses were stock-based compensation expenses of approximately $1.8 million and $4.4 million for the years ended December 31, 2013 and 2012, respectively.

***Restructuring.*** Restructuring expense for the year ended December 31, 2013 was $8.0 million, compared to $2.6 million for the year ended December 31, 2012, an increase of $5.4 million, or 204%. The increase is primarily the result of the additional costs incurred in connection with our June 2013 strategic restructuring, which was announced in connection with the receipt of a Complete Response Letter from the FDA informing us that the FDA would not approve our NDA for tivozanib for the treatment of patients with advanced RCC. We did not incur any additional restructuring costs or charges with respect to our lease commitments for our headquarters and laboratory space in Cambridge, Massachusetts. The restructuring refocused our efforts on the then on-going clinical development of tivozanib in colorectal and breast cancer and on the advancement of key pipeline and preclinical assets.

***Other (expense) income, net.*** Other (expense) income, net for the year ended December 31, 2013 was $(0.1) million compared to $0.2 million for the year ended December 31, 2012. The decrease in other (expense) income is due to increased losses on foreign exchange rates and fixed asset disposals.

***Interest expense.*** Interest expense for the year ended December 31, 2013 was $3.1 million compared to $3.5 million for the year ended December 31, 2012, a decrease of $0.4 million, or 11%. The decrease in interest expense is due to lower average principal balances on our loan with Hercules Technology Growth.

***Interest income.*** Interest income for the year ended December 31, 2013 was $0.1 million compared to $0.5 million for the year ended December 31, 2012, a decrease of $0.4 million, or 75%. The decrease in interest income is primarily due to overall lower average cash, cash equivalent and marketable securities balances during the year ended December 31, 2013 compared to the year ended December 31, 2012.

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***Comparison of Years Ended December 31, 2012 and 2011***

The following tables summarize the results of our operations for each of the years ended December 31, 2012 and 2011, together with the changes in those items in dollars and as a percentage:

| | Years Ended December 31, | | Increase/ | |
|---|---|---|---|---|
| | 2012 | 2011 | (decrease) | % |
| | (in thousands) | | | |
| Revenue | $ 19,286 | $ 164,849 | $ (145,563) | (88)% |
| Operating expenses: | | | | |
| Research and development | 91,358 | 101,735 | (10,377) | (10)% |
| General and administrative | 36,932 | 29,167 | 7,765 | 27% |
| Restructuring | 2,633 | | 2,633 | |
| Total operating expenses | 130,923 | 130,902 | 21 | |
| (Loss) income from operations | (111,637) | 33,947 | (145,584) | (429)% |
| Other income, net | 247 | 10 | 237 | 2,370% |
| Interest expense | (3,501) | (3,836) | 335 | (9)% |
| Interest income | 497 | 527 | (30) | 6% |
| Net (loss) income | $ (114,394) | $ 30,648 | $ (145,042) | (473)% |

| Revenue | Years Ended December 31, 2012 | 2011 | Increase/ (decrease) | % |
|---|---|---|---|---|
| | (in thousands) | | | |
| Strategic Partner: | | | | |
| Astellas | $ 15,430 | $ 120,576 | $ (105,146) | (87)% |
| OSI | 1,000 | 29,576 | (28,576) | (97)% |
| Centocor | 1,973 | 8,810 | (6,837) | (78)% |
| Biogen Idec | 863 | 5,863 | (5,000) | (85)% |
| Other | 20 | 24 | (4) | (17)% |
| | $ 19,286 | $ 164,849 | $ (145,563) | (88)% |

***Revenue.*** Revenue for the year ended December 31, 2012 was $19.3 million compared to $164.8 million for the year ended December 31, 2011, a decrease of approximately $145.6 million, or 88%. The decrease was primarily due to revenue recognized during 2011 that did not recur during 2012, including $120.2 million of revenue recognized in conjunction with the up-front payment associated with the signing of our collaboration agreement with Astellas; $29.6 million in revenue from OSI primarily related to its exercise of an option to acquire certain rights to our technology platform; $7.0 million in revenue recognized in connection with the up-front payment from Centocor related to the RON program; and $5.0 million in revenue recognized in connection with the Biogen Idec milestone payment related to achieving the GLP toxicology initiation milestone. Revenue during 2012 primarily related to a $15.0 million milestone payment earned under our collaboration agreement with Astellas related to the FDA s acceptance of our NDA filing for tivozanib, $1.0 million in patent-related and clinical and development milestone payments earned under our agreement with OSI, research funding under our collaboration agreement with Centocor, and amortization of previously deferred revenue associated with our collaboration agreements with Astellas and Biogen Idec.

***Research and development.*** Research and development expenses for the year ended December 31, 2012 were $91.4 million compared to $101.7 million for the year ended December 31, 2011, a decrease of $10.4 million, or 10%. The decrease is primarily attributable to a net decrease in licensing costs of $10.1 million due primarily to our milestone payment to KHK related to the up-front license payment received from Astellas during 2011 offset by a milestone payment to KHK made upon the acceptance for filing by the FDA of our NDA for

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tivozanib during 2012; a decrease of $7.2 million in manufacturing costs related primarily to the purchase of supply of ficlatuzumab during 2011 from Merck to support ongoing clinical studies; a decrease in clinical trial costs of $7.0 million; and an increase of $7.4 million in reimbursements to us by Astellas for tivozanib development costs. The decrease for 2012 was partially offset by an increase of $10.0 million in salaries, benefits and contract labor mainly due to an increase in personnel primarily supporting development activities; a $4.6 million increase in facility and information technology costs due to additional leased space at 650 East Kendall Street and 12 Emily Street; a $1.8 million filing fee related to the submission of our NDA to the FDA; a $1.5 million increase in consulting costs primarily related to the development of tivozanib; an increase of $1.2 million in costs related to medical affairs activities; a $1.1 million increase in stock-based compensation primarily associated with an increase in headcount; an increase in travel costs of $1.0 million primarily to support ongoing clinical trials related to tivozanib; and an increase in depreciation expense of $0.6 million.

Included in research and development expenses were stock-based compensation expenses of approximately $3.6 million and $2.5 million for the years ended December 31, 2012 and 2011, respectively.

***General and administrative.*** General and administrative expenses for the year ended December 31, 2012 were $36.9 million compared to $29.2 million for the year ended December 31, 2011, an increase of $7.8 million, or 27%. The increase is primarily the result of an increase of $6.0 million in costs for pre-commercialization activities for tivozanib; a $4.6 million increase in salaries, benefits and other hiring costs due to an overall increase in personnel in preparation for the potential launch of tivozanib; a $1.1 million increase in facility and information technology costs due to additional leased space at 650 East Kendall Street and 12 Emily Street; and a $1.0 million increase in stock-based compensation expense primarily associated with an increase in headcount. These amounts were partially offset by a net decrease in consulting costs of $3.5 million, primarily related to a $4.25 million payment to a financial advisor recorded in connection with the consummation of our collaboration agreement with Astellas during the first quarter of 2011; and an increase in the reimbursement of costs by Astellas related to tivozanib pre-commercialization activities of $2.2 million.

Included in general and administrative expenses were stock-based compensation expenses of approximately $4.4 million and $3.4 million for the years ended December 31, 2012 and 2011, respectively.

***Restructuring.*** Restructuring expense for the year ended December 31, 2012 was $2.6 million, with no corresponding expense for the year ended December 31, 2011. The restructuring expense in 2012 related to our strategic restructuring announced on October 30, 2012. The strategic restructuring was designed to optimize resources and reduce expenses to ensure positioning for a successful launch of tivozanib in advanced RCC, assuming FDA approval, and continued development in other cancer types, while maintaining a focused research engine. Our restructuring and projected cost savings were achieved through a combination of reduced spending on early stage research programs and a reduction in force of 48 positions, as well as the elimination of 30 open positions.

***Other income, net.*** Other income, net for the year ended December 31, 2012 was $0.2 million compared to $10,000 for the year ended December 31, 2011. The increase was primarily due to proceeds from a one-time sale of excess supplies during the year ended December 31, 2012.

***Interest expense.*** Interest expense for the year ended December 31, 2012 was $3.5 million compared to $3.8 million for the year ended December 31, 2011, a decrease of $0.3 million, or 9%. The decrease in interest expense is due to a lower effective interest rate on the loan balance outstanding during the year ended December 31, 2012 compared to the year ended December 31, 2011.

***Interest income.*** Interest income for the year ended December 31, 2012 was $497,000 compared to $527,000 for the year ended December 31, 2011, a decrease of $30,000, or 6%. The decrease in interest income is primarily due to a lower average cash, cash equivalent and marketable securities balance during the year ended December 31, 2012 compared to the year ended December 31, 2011.

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**Liquidity and Capital Resources**

We have funded our operations principally through the sale of equity securities sold in private placements and underwritten public offerings of equity securities, revenue and expense reimbursements from strategic partnerships, debt financing and interest income. As of December 31, 2013, we have received gross proceeds of $89.7 million from the sale of common stock in our initial public offering, $68.3 million from private placements of shares of our common stock to institutional and accredited investors, $168.7 million from a follow-on public offering of shares of our common stock, and $169.6 million from the sale of convertible preferred stock prior to becoming a public company. As of December 31, 2013, we had received an aggregate of $390.7 million in cash from our agreements with strategic partners, and $26.5 million in funding from our debt financing with Hercules Technology Growth and certain of its affiliates. As of December 31, 2013, we had cash, cash equivalents and marketable securities of approximately $118.5 million. Currently, our funds are invested in money market funds, U.S. government agency securities, asset-backed securities, asset-backed commercial paper and corporate debt securities, including commercial paper. The following table sets forth the primary sources and uses of cash for each of the periods set forth below:

| | Years Ended December 31, | | |
|---|---|---|---|
| | 2013 | 2012 | 2011 |
| | | (in thousands) | |
| Net cash (used in) provided by operating activities | $ (84,402) | $ (105,729) | $ 26,451 |
| Net cash provided by (used in) investing activities | 12,070 | 135,247 | (144,103) |
| Net cash provided by financing activities | 46,998 | 3,136 | 115,367 |
| Net increase (decrease) in cash and cash equivalents | $ (25,334) | $ 32,654 | $ (2,285) |

During the years ended December 31, 2013, 2012 and 2011, our operating activities (used) provided cash of $(84.4) million, $(105.7) million and $26.5 million, respectively. The cash used in operations for the years ended December 31, 2013, and 2012, respectively, was due primarily to our net losses adjusted for non-cash items. The cash provided by operations for the year ended December 31, 2011 was due primarily to our net income adjusted for non-cash items offset by a decrease in deferred revenue of $12.2 million related to, in part, the recognition of previously deferred revenue related to our research and license agreement with OSI, as well as an increase in accounts receivable of $6.8 million primarily due from Astellas for reimbursement of development expenses.

During the years ended December 31, 2013, 2012 and 2011, our investing activities provided (used) cash of $12.1 million, $135.2 million and $(144.1) million, respectively. The cash provided by investing activities for the years ended December 31, 2013 and 2012 was the result of fewer purchases of marketable securities than the proceeds from maturities and sales of marketable securities in order to fund our ongoing operations, partially offset by purchases of property and equipment of $3.7 million and $9.9 million during the years ended December 31, 2013 and 2012, respectively. The cash used in investing activities for the year ended December 31, 2011 was the net result of more purchases of marketable securities than the proceeds from maturities and sales of marketable securities in addition to purchases of property and equipment of $2.6 million.

During the years ended December 31, 2013, 2012 and 2011, our financing activities provided $47.0 million, $3.1 million and $115.4 million, respectively. The cash provided by financing activities in 2013 was primarily due to the net proceeds of $53.6 million from our public offering of stock, offset by $7.1 million in principal payments on our loan from Hercules Technology Growth. The cash provided by financing activities in 2012 was due to stock option exercises of $1.6 million, as well as net proceeds of $3.7 million from the refinancing of loans payable from our loan agreement entered into with affiliates of Hercules Technology Growth, offset partially by principal payments on loans payable in the amount of $2.2 million. The cash provided by financing activities for the year ended December 31, 2011 was primarily due to net proceeds of $104.2 million from our follow-on public offering of common stock, net proceeds of $8.0 million from the sale and issuance of common stock in connection with the Centocor license agreement, as well as stock option exercises of $3.2 million.

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***Credit Facilities.*** On May 28, 2010, we entered into a loan and security agreement, which we refer to as the loan agreement, with Hercules Technology II, L.P. and Hercules Technology III, L.P., affiliates of Hercules Technology Growth, which we amended on December 21, 2011 and March 31, 2012, and under which we received a loan in an aggregate principal amount of $26.5 million. We are required to repay the aggregate principal balance of the loan that is outstanding under the loan agreement in 30 equal monthly installments of principal, which started on April 1, 2013. The loan agreement also includes an obligation to pay an additional deferred charge of $1.24 million due on June 1, 2014 which has been recorded as a loan discount and is being amortized to interest expense over the term of the loan agreement using the effective interest rate method. We recorded a long-term liability for the full amount of the charge since the payment of such amount is not contingent on any future event. Per annum interest is payable at the greater of 11.9% and an amount equal to 11.9% plus the prime rate of interest minus 4.75%, provided however, that the per annum interest shall not exceed 15.0%. We must make interest payments on the loan each month the loan remains outstanding. The unpaid principal balance and all accrued but unpaid interest will be due and payable on September 1, 2015.

The loan is secured by a lien on all of our personal property (other than intellectual property), whether owned as of, or acquired after, the date of the amended loan agreement. As of December 31, 2013, the principal balance outstanding was $19.4 million.

***Operating Capital Requirements*.** We anticipate that we will continue to incur significant operating costs for the next several years as we incur expenses to continue to advance our preclinical and clinical programs.

We believe that our existing cash, cash equivalents, and marketable securities will allow us to fund our operating plan into at least the fourth quarter of 2015.

Because of the numerous risks and uncertainties associated with research, development and commercialization of pharmaceutical products, we are unable to estimate the exact amounts of our working capital requirements. Our future funding requirements will depend on many factors, including, but not limited to:

- the number and characteristics of the product candidates we pursue;
- the scope, progress, results and costs of researching and developing our product candidates, and conducting preclinical and clinical trials;
- our ability to establish and maintain strategic partnerships, licensing or other arrangements and the financial terms of such agreements;
- our ability to secure alternative leasing or subleasing arrangements for our underutilized office space at 650 East Kendall Street in Cambridge, Massachusetts, and to achieve related cost savings with respect to our current lease obligation;
- the timing of, and the costs involved in, obtaining regulatory approvals for our product candidates;
- the cost of commercialization activities if any of our product candidates are approved for sale, including marketing, sales and distribution costs;
- the cost of manufacturing our product candidates and any products we successfully commercialize;
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims, including litigation costs and the outcome of such litigation;

whether we realize the full amount of any projected cost savings associated with our strategic restructurings;

the absence of any breach or event of default under our loan agreement with Hercules or under any other agreements with third parties;

the outcome of lawsuits against us, including the current lawsuits described below under Part I, Item 3 Legal Proceedings;

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the cost of commercialization activities if any of our product candidates are approved for sale, including marketing, sales and distribution costs;

the cost of manufacturing our product candidates and any products we successfully commercialize; and

the timing, receipt and amount of sales of, or royalties on, our future products, if any.

In connection with the June 2013 restructuring, we are reevaluating our facilities requirements for our headquarters, office and laboratory space at 650 East Kendall Street in Cambridge, Massachusetts. Failure to secure alternative arrangements with respect to our lease commitments could have an adverse effect on our operating results or financial condition.

If our available cash and cash equivalents are insufficient to satisfy our liquidity requirements, or if we identify additional opportunities to do so, we may seek to sell additional equity or debt securities or obtain additional credit facilities. The sale of additional equity or convertible debt securities may result in additional dilution to our stockholders. If we raise additional funds through the issuance of debt securities or preferred stock or through additional credit facilities, these securities and/or the loans under credit facilities could provide for rights senior to those of our common stock and could contain covenants that would restrict our operations. We may require additional capital beyond our currently forecasted amounts. Additional funds may not be available when we need them, on terms that are acceptable to us, or at all. If adequate funds are not available to us on a timely basis, we may be required to:

delay, limit, reduce or terminate preclinical studies, clinical trials or other research and development activities for one or more of our product candidates; and/or

delay, limit, reduce or terminate our establishment of sales and marketing capabilities or other activities that may be necessary to commercialize our product candidates, if approved.

**Contractual Obligations and Commitments**

The following table summarizes our contractual obligations at December 31, 2013:

| | | Payment due by period | | | |
|---|---|---|---|---|---|
| **Contractual Obligations** | **Total** | **Less than 1 Year** | **1 to 3 Years** | **3 to 5 Years** | **More than 5 Years** |
| | | | (in thousands) | | |
| Long-term debt (including interest) | $ 22,855 | $ 13,547 | $ 9,308 | | |
| Operating lease obligations | 91,878 | 8,077 | 15,038 | $ 15,698 | $ 53,065 |
| License agreements[1][2] | 75 | 25 | 50 | | |
| Total contractual cash obligations | $ 114,808 | $ 21,649 | $ 24,396 | $ 15,698 | $ 53,065 |

(1) Under our license agreement with Kyowa Hakko Kirin, we are required to make certain milestone payments upon the achievement of specified regulatory milestones and pay a specified percentage of certain amounts we may receive under our collaboration agreement with Astellas. At this time, we cannot reasonably estimate when or if we may be required to make additional payments to Kyowa Hakko Kirin and have not included any such amounts in the table above.

(2) As discussed in Note 7 to our audited consolidated financial statements, we have executed license agreements for patented technology and other technology related to research projects, including technology to humanize ficlatuzumab and other antibody product candidates. The license agreements required us to pay non-refundable license fees upon execution, and in certain cases, require milestone payments upon the achievement of defined development goals. We have not included any additional milestone payments in the table above as we are not able to make a reasonable estimate of the probability and timing of such payments, if any. Including amounts in the table above, these four

agreements include sales and development milestones of up to $22.5 million, $5.5 million, $9.6 million and $4.2 million per product, respectively, and single digit royalties as a percentage of sales.

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**Off-Balance Sheet Arrangements**

We did not have, during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined under applicable SEC rules.

**ITEM 7A. Quantitative and Qualitative Disclosures About Market Risk**

We are exposed to market risk related to changes in interest rates. As of December 31, 2013, we had cash and cash equivalents and marketable securities of $118.5 million, consisting of cash on deposit with banks, money market funds, U.S. government agency securities, asset-backed securities, asset-backed commercial paper, and corporate debt, including commercial paper. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates, particularly because our investments are in short-term marketable securities. Our marketable securities are subject to interest rate risk and could fall in value if market interest rates increase. Due to the short-term duration of our investment portfolio and the low risk profile of our investments, an immediate 10% change in interest rates would not have a material effect on the fair market value of our portfolio. We have the ability to hold our marketable securities until maturity, and therefore we would not expect our operating results or cash flows to be affected to any significant degree by the effect of a change in market interest rates on our investments. We do not currently have any auction rate securities.

Our long-term debt bears interest at variable rates. In May 2010, we entered into a loan agreement with affiliates of Hercules Technology Growth Capital pursuant to which we received a loan in the aggregate principal amount of $25.0 million. In March 2012, we entered into an amendment to the loan, pursuant to which we increased the principal amount to $26.5 million. Per annum interest is payable at the greater of 11.9% and 11.9% plus the prime rate of interest minus 4.75%, not to exceed 15%. As a result of the 15% maximum per annum interest rate under the amended loan agreement, we have limited exposure to changes in interest rates on borrowings under this loan agreement. For every 1% increase in the prime rate over 4.75%, given the amount of debt outstanding under the loan agreement as of December 31, 2013, and expected loan payments during 2014, we would have a decrease in future annual cash flows of approximately $0.1 million over the next twelve month period as a result of such 1% increase.

We are also exposed to market risk related to change in foreign currency exchange rates. We contract with contract research organizations and investigational sites that are located around the world. We are subject to fluctuations in foreign currency rates in connection with these agreements. We do not currently hedge our foreign currency exchange rate risk.

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**ITEM 8. Financial Statements and Supplementary Data**

**AVEO PHARMACEUTICALS, INC.**

**INDEX TO CONSOLIDATED FINANCIAL STATEMENTS**

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Board of Directors and Stockholders of

AVEO Pharmaceuticals, Inc.

We have audited the accompanying consolidated balance sheets of AVEO Pharmaceuticals, Inc. as of December 31, 2013 and 2012, and the related consolidated statements of operations, comprehensive (loss) income, stockholders equity, and cash flows for each of the three years in the period ended December 31, 2013. 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 AVEO Pharmaceuticals, Inc. at December 31, 2013 and 2012, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2013, 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), AVEO Pharmaceuticals, Inc. s internal control over financial reporting as of December 31, 2013, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (1992 framework), and our report dated March 13, 2014 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Boston, Massachusetts

March 13, 2014

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**AVEO Pharmaceuticals, Inc.**

**Consolidated Balance Sheets**

**(In thousands, except par value amounts)**

| | 2013 | 2012 |
|---|---|---|
| **Assets** | | |
| Current assets: | | |
| Cash and cash equivalents | $ 50,826 | $ 76,134 |
| Marketable securities | 67,680 | 84,468 |
| Accounts receivable | 984 | 20,649 |
| Tenant improvement allowance receivable | 5,833 | 3,240 |
| Restricted cash | 598 | |
| Prepaid expenses and other current assets | 2,998 | 6,190 |
| Total current assets | 128,919 | 190,681 |
| Property and equipment, net | 14,140 | 12,867 |
| Other assets | 290 | 321 |
| Restricted cash | 2,997 | 3,600 |
| Total assets | $ 146,346 | $ 207,469 |
| **Liabilities and stockholders equity** | | |
| Current liabilities: | | |
| Accounts payable | $ 4,238 | $ 10,628 |
| Accrued expenses | 13,263 | 19,543 |
| Loans payable, net of discount | 10,383 | 6,809 |
| Deferred revenue | 1,294 | 1,294 |
| Other liabilities | 1,238 | |
| Deferred rent | 992 | 856 |
| Total current liabilities | 31,408 | 39,130 |
| Loans payable, net of current portion and discount | 8,822 | 19,228 |
| Deferred revenue, net of current portion | 17,098 | 18,391 |
| Deferred rent, net of current portion | 19,080 | 10,544 |
| Other liabilities | | 1,238 |
| Commitments and contingencies (Note 8) | | |
| Stockholders equity: | | |
| Preferred stock, $.001 par value: 5,000 shares authorized; no shares issued and outstanding | | |
| Common stock, $.001 par value: 100,000 shares authorized; 51,809 and 43,780 shares issued and outstanding at December 31, 2013 and 2012, respectively | 52 | 44 |
| Additional paid-in capital | 497,177 | 439,173 |
| Accumulated other comprehensive loss | (2) | (19) |
| Accumulated deficit | (427,289) | (320,260) |
| Total stockholders equity | 69,938 | 118,938 |
| Total liabilities and stockholders equity | $ 146,346 | $ 207,469 |

See accompanying notes

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**AVEO Pharmaceuticals, Inc.**

**Consolidated Statements of Operations**

**(In thousands, except per share amounts)**

| | Year Ended December 31, | | |
|---|---|---|---|
| | 2013 | 2012 | 2011 |
| Collaboration revenue | $ 1,293 | $ 19,286 | $ 164,849 |
| Operating expenses: | | | |
| Research and development | 68,468 | 91,358 | 101,735 |
| General and administrative | 28,712 | 36,932 | 29,167 |
| Restructuring | 8,017 | 2,633 | |
| | 105,197 | 130,923 | 130,902 |
| (Loss) income from operations | (103,904) | (111,637) | 33,947 |
| Other income and expense: | | | |
| Other (expense) income, net | (123) | 247 | 10 |
| Interest expense | (3,127) | (3,501) | (3,836) |
| Interest income | 125 | 497 | 527 |
| Other expense, net | (3,125) | (2,757) | (3,299) |
| Net (loss) income | $ (107,029) | $ (114,394) | $ 30,648 |
| Basic net (loss) income per share: | | | |
| Net (loss) income per share | $ (2.10) | $ (2.64) | $ 0.77 |
| Weighted average number of common shares outstanding | 50,928 | 43,374 | 39,715 |
| Diluted net (loss) income per share: | | | |
| Net (loss) income per share | $ (2.10) | $ (2.64) | $ 0.74 |
| Weighted average number of common shares and dilutive common share equivalents outstanding | 50,928 | 43,374 | 41,473 |

See accompanying notes

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**AVEO PHARMACEUTICALS, INC.**

**Consolidated Statements of Comprehensive (Loss) Income**

**(In thousands)**

| | Year Ended December 31, | | |
|---|---|---|---|
| | **2013** | **2012** | **2011** |
| Net (loss) income | $ (107,029) | $ (114,394) | $ 30,648 |
| Other comprehensive (loss) income: | | | |
| Unrealized (losses) gains on available-for-sale securities | (9) | 174 | (147) |
| Foreign currency translation adjustment | 26 | (26) | |
| Comprehensive (loss) income | $ (107,012) | $ (114,246) | $ 30,501 |

See accompanying notes

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**AVEO Pharmaceuticals, Inc.**

**Consolidated Statements of Stockholders Equity**

**(In thousands)**

| Transaction | Common Shares Shares | Common Shares Par Value | Additional Paid-in Capital | Accumulated Other Comprehensive Loss | Accumulated Deficit | Total Stockholders Equity |
|---|---|---|---|---|---|---|
| Balance at December 31, 2010 | 35,604 | $ 36 | $ 308,268 | $ (20) | $ (236,514) | $ 71,770 |
| Exercise of stock options | 565 | 1 | 2,457 | | | 2,458 |
| Exercise of warrants | 168 | | | | | |
| Stock-based compensation expense | | | 5,903 | | | 5,903 |
| Issuance of common stock under employee stock purchase plan | 58 | | 779 | | | 779 |
| Issuance of common stock from follow-on stock offering (net of issuance costs of $6,960) | 6,352 | 6 | 104,202 | | | 104,208 |
| Issuance of common stock from license agreement with Centocor (net of issuance costs of $113) | 438 | | 7,922 | | | 7,922 |
| Issuance of restricted stock awards, net of forfeitures | 69 | | | | | |
| Change in unrealized gain/loss on investments | | | | (147) | | (147) |
| Net income | | | | | 30,648 | 30,648 |
| Balance at December 31, 2011 | 43,254 | $ 43 | $ 429,531 | $ (167) | $ (205,866) | $ 223,541 |
| Exercise of stock options | 220 | 1 | 825 | | | 826 |
| Stock-based compensation expense | | | 8,007 | | | 8,007 |
| Issuance of common stock under employee stock purchase plan | 95 | | 810 | | | 810 |
| Issuance of restricted stock awards, net of forfeitures | 211 | | | | | |
| Change in unrealized gain/loss on investments | | | | 174 | | 174 |
| Cumulative translation adjustment | | | | (26) | | (26) |
| Net loss | | | | | (114,394) | (114,394) |
| Balance at December 31, 2012 | 43,780 | $ 44 | $ 439,173 | $ (19) | $ (320,260) | $ 118,938 |
| Exercise of stock options | 185 | 1 | 271 | | | 272 |
| Stock-based compensation expense related to equity-classified awards | | | 3,791 | | | 3,791 |
| Issuance of common stock to settle liability-classified share awards granted to directors | 39 | | 119 | | | 119 |
| Issuance of common stock under employee stock purchase plan | 110 | | 193 | | | 193 |
| Issuance of common stock from follow-on stock offering (net of issuance cost of $3,865) | 7,667 | 7 | 53,630 | | | 53,637 |
| Issuance of restricted stock awards, net of forfeitures | 28 | | | | | |
| Change in unrealized gain/loss on investments | | | | (9) | | (9) |
| Cumulative translation adjustment | | | | 26 | | 26 |
| Net loss | | | | | (107,029) | (107,029) |
| Balance at December 31, 2013 | 51,809 | $ 52 | $ 497,177 | $ (2) | $ (427,289) | $ 69,938 |

See accompanying notes

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**AVEO Pharmaceuticals, Inc.**

**Consolidated Statements of Cash Flows**

**(in thousands)**

| | Year Ended December 31, | | |
|---|---|---|---|
| | **2013** | **2012** | **2011** |
| **Operating activities** | | | |
| Net (loss) income | $ (107,029) | $ (114,394) | $ 30,648 |
| Adjustments to reconcile net (loss) income to net cash (used in) provided by operating activities: | | | |
| Depreciation and amortization | 3,775 | 2,510 | 1,654 |
| Net loss on disposal of property and equipment | 83 | 42 | 35 |
| Impairment of property and equipment | 65 | | |
| Stock-based compensation | 3,940 | 8,007 | 5,903 |
| Non-cash interest expense | 285 | 380 | 788 |
| Amortization of premiums and discounts on investments | 1,041 | 2,446 | 3,801 |
| Changes in operating assets and liabilities: | | | |
| Accounts receivable | 19,665 | (13,439) | (6,819) |
| Tenant improvement allowance receivable | (2,593) | (3,180) | (60) |
| Prepaid expenses and other current assets | 3,179 | (207) | (1,153) |
| Other noncurrent assets | 31 | (200) | 335 |
| Restricted cash | 5 | (2,849) | (144) |
| Accounts payable | (6,390) | 1,724 | (343) |
| Accrued expenses | (7,838) | 5,254 | 4,168 |
| Deferred revenue | (1,293) | (1,293) | (12,224) |
| Other liabilities | | (1,249) | |
| Deferred rent | 8,672 | 10,719 | (138) |
| Net cash (used in) provided by operating activities | (84,402) | (105,729) | 26,451 |
| **Investing activities** | | | |
| Purchases of property and equipment | (3,668) | (9,948) | (2,628) |
| Purchases of marketable securities | (175,391) | (194,584) | (376,270) |
| Proceeds from maturities and sales of marketable securities | 191,129 | 339,779 | 234,795 |
| Net cash provided by (used in) investing activities | 12,070 | 135,247 | (144,103) |
| **Financing activities** | | | |
| Proceeds from issuance of common stock, net of issuance costs | 53,637 | | 112,130 |
| Proceeds from issuance of stock for stock-based compensation arrangements | 465 | 1,636 | 3,237 |
| Proceeds from refinancing of loans payable | | 3,672 | |
| Principal payments on loans payable | (7,104) | (2,172) | |
| Net cash provided by financing activities | 46,998 | 3,136 | 115,367 |
| Net (decrease) increase in cash and cash equivalents | (25,334) | 32,654 | (2,285) |
| Effect of exchange rate changes on cash and cash equivalents | 26 | (26) | |
| Cash and cash equivalents at beginning of period | 76,134 | 43,506 | 45,791 |
| Cash and cash equivalents at end of period | $ 50,826 | $ 76,134 | $ 43,506 |
| **Supplemental cash flow and noncash investing and financing activities** | | | |

| | | | |
|---|---|---|---|
| Cash paid for interest | $ 2,916 | $ 3,104 | $ 3,016 |

See accompanying notes

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**AVEO Pharmaceuticals, Inc.**

**Notes to Consolidated Financial Statements**

**December 31, 2013**

**1. Nature of Business and Organization**

AVEO Pharmaceuticals, Inc. (the Company ) is a biopharmaceutical company committed to discovering and developing targeted therapies designed to provide substantial impact in the lives of people with cancer by addressing unmet medical needs. The Company s product candidates are directed against important mechanisms, or targets, known or believed to be involved in cancer. The Company s proprietary Human Response Platform provides the Company with unique insights into cancer biology and is leveraged in the discovery and clinical development of therapeutics.

The Company has a pipeline of monoclonal antibodies, including ficlatuzumab, a product candidate for which the Company has completed a phase 2 clinical study, and AV-203, a clinical stage monoclonal antibody that targets the ERBB3 (HER3) receptor, which the Company has partnered with Biogen Idec, Inc.

The Company and its partner Astellas Pharma, Inc. ( Astellas ) have been developing tivozanib for the treatment of various types of cancers such as renal cell carcinoma, colorectal cancer and breast cancer. As further described in Footnote 16, Astellas notified the Company in February 2014 that it has elected to terminate the worldwide collaboration and license agreement. This termination will become effective in August 2014, at which time the tivozanib rights will be returned to the Company.

In 2012, the Company initiated a program focusing on cachexia, a serious and common complication of advanced cancer and a number of chronic diseases that is characterized by symptoms of unintentional weight loss, progressive muscle wasting, and a loss of appetite. The program s primary research focus is in the area of cancer cachexia, where there is a major unmet need. AV-380, the Company s lead drug candidate, is a potent humanized IgG1 inhibitory monoclonal antibody targeting growth differentiating factor-15, or GDF-15, a divergent member of the TGF-b. family.

As used throughout these consolidated financial statements, the terms AVEO, and the Company refer to the business of AVEO Pharmaceuticals, Inc. and its subsidiaries, AVEO Pharma Limited and AVEO Securities Corporation, both of which are wholly-owned.

The Company has an accumulated deficit as of December 31, 2013 of approximately $427.3 million, and will require substantial additional capital for research and product development. The Company believes that its existing cash, cash equivalents, and marketable securities are sufficient to fund its operations through at least the next twelve months.

**2. Significant Accounting Policies**

*Revenue Recognition*

The Company s revenues are generated primarily through collaborative research, development and commercialization agreements. The terms of these agreements generally contain multiple elements, or deliverables, which may include (i) licenses, or options to obtain licenses, to the Company s technology, (ii) research and development activities to be performed on behalf of the collaborative partner, and (iii) in certain cases, services in connection with the manufacturing of pre-clinical and clinical material. Payments to the Company under these arrangements typically include one or more of the following: non-refundable, up-front license fees; option exercise fees; funding of research and/or development efforts; milestone payments; and royalties on future product sales.

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When evaluating multiple element arrangements, the Company considers whether the deliverables under the arrangement represent separate units of accounting. This evaluation requires subjective determinations and requires management to make judgments about the individual deliverables and whether such deliverables are separable from the other aspects of the contractual relationship. In determining the units of accounting, management evaluates certain criteria, including whether the deliverables have standalone value, based on the relevant facts and circumstances for each arrangement. The consideration received is allocated among the separate units of accounting using the relative selling price method, and the applicable revenue recognition criteria are applied to each of the separate units.

The Company determines the estimated selling price for deliverables within each agreement using vendor-specific objective evidence ( VSOE ) of selling price, if available, third-party evidence ( TPE ) of selling price if VSOE is not available, or best estimate of selling price if neither VSOE nor TPE is available. Determining the best estimate of selling price for a deliverable requires significant judgment. The Company typically uses best estimate of selling price to estimate the selling price for licenses to the Company s proprietary technology, since the Company often does not have VSOE or TPE of selling price for these deliverables. In those circumstances where the Company utilizes best estimate of selling price to determine the estimated selling price of a license to the Company s proprietary technology, the Company considers market conditions as well as entity-specific factors, including those factors contemplated in negotiating the agreements and internally developed models that include assumptions related to the market opportunity, estimated development costs, probability of success and the time needed to commercialize a product candidate pursuant to the license. In validating the Company s best estimate of selling price, the Company evaluates whether changes in the key assumptions used to determine the best estimate of selling price will have a significant effect on the allocation of arrangement consideration among multiple deliverables.

The Company typically receives non-refundable, up-front payments when licensing its intellectual property in conjunction with a research and development agreement. When management believes the license to its intellectual property does not have stand-alone value from the other deliverables to be provided in the arrangement, the Company generally recognizes revenue attributed to the license on a straight-line basis over the Company s contractual or estimated performance period, which is typically the term of the Company s research and development obligations. If management cannot reasonably estimate when the Company s performance obligation ends, then revenue is deferred until management can reasonably estimate when the performance obligation ends. When management believes the license to its intellectual property has stand-alone value, the Company generally recognizes revenue attributed to the license upon delivery. The periods over which revenue should be recognized are subject to estimates by management and may change over the course of the research and development agreement. Such a change could have a material impact on the amount of revenue the Company records in future periods.

Payments or reimbursements resulting from the Company s research and development efforts for those arrangements where such efforts are considered as deliverables are recognized as the services are performed and are presented on a gross basis so long as there is persuasive evidence of an arrangement, the fee is fixed or determinable, and collection of the related receivable is reasonably assured. Amounts received prior to satisfying the above revenue recognition criteria are recorded as deferred revenue in the accompanying balance sheets.

At the inception of each agreement that includes milestone payments, the Company evaluates whether each milestone is substantive and at risk to both parties on the basis of the contingent nature of the milestone. This evaluation includes an assessment of whether (a) the consideration is commensurate with either (1) the entity s performance to achieve the milestone, or (2) the enhancement of the value of the delivered item(s) as a result of a specific outcome resulting from the entity s performance to achieve the milestone, (b) the consideration relates solely to past performance, and (c) the consideration is reasonable relative to all of the deliverables and payment terms within the arrangement. The Company evaluates factors such as the scientific, regulatory, commercial and other risks that must be overcome to achieve the respective milestone, the level of effort and investment required to achieve the respective milestone and whether the milestone consideration is reasonable relative to all deliverables and payment terms in the arrangement in making this assessment.

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The Company aggregates its milestones into four categories: (i) clinical and development milestones, (ii) regulatory milestones, (iii) commercial milestones, and (iv) patent-related milestones. Clinical and development milestones are typically achieved when a product candidate advances into a defined phase of clinical research or completes such phase. For example, a milestone payment may be due to the Company upon the initiation of a phase 3 clinical trial for a new indication, which is the last phase of clinical development and could eventually contribute to marketing approval by the U.S. Food and Drug Administration ( FDA ) or other global regulatory authorities. Regulatory milestones are typically achieved upon acceptance of the submission for marketing approval of a product candidate or upon approval to market the product candidate by the FDA or other global regulatory authorities. For example, a milestone payment may be due to the Company upon the FDA s acceptance of a New Drug Application ( NDA ). Commercial milestones are typically achieved when an approved pharmaceutical product reaches certain defined levels of net sales by the licensee, such as when a product first achieves global sales or annual sales of a specified amount. Patent-related milestones are typically achieved when a patent application is filed or a patent is issued with respect to certain intellectual property related to the applicable collaboration.

Revenues from clinical and development, regulatory, and patent-related milestone payments, if the milestones are deemed substantive and the milestone payments are nonrefundable, are recognized upon successful accomplishment of the milestones. The Company has concluded that the clinical and development, regulatory and patent-related milestones pursuant to its current research and development arrangements are substantive. Milestones that are not considered substantive are accounted for as license payments and recognized on a straight-line basis over the remaining period of performance. Revenues from commercial milestone payments are accounted for as royalties and are recorded as revenue upon achievement of the milestone, assuming all other revenue recognition criteria are met.

*Principles of Consolidation*

The Company s consolidated financial statements include the Company s accounts and the accounts of the Company s wholly-owned subsidiaries, AVEO Pharma Limited and AVEO Securities Corporation. All intercompany transactions have been eliminated.

*Research and Development Expenses*

Research and development expenses are charged to expense as incurred. Research and development expenses consist of costs incurred in performing research and development activities, including personnel-related costs such as salaries and stock-based compensation, facilities, research-related overhead, clinical trial costs, manufacturing costs and costs of other contracted services, license fees, and other external costs. Nonrefundable advance payments for goods and services that will be used in future research and development activities are expensed when the activity has been performed or when the goods have been received.

*Cash and Cash Equivalents*

The Company considers highly liquid investments with a maturity of three months or less when purchased to be cash equivalents. Cash and cash equivalents at December 31, 2013 consisted of money market funds, asset-backed securities, asset-backed commercial paper, and corporate debt securities, including commercial paper, maintained by an investment manager. Cash and cash equivalents at December 31, 2012 consisted of a money market fund and corporate debt securities, including commercial paper, maintained by an investment manager.

*Marketable Securities*

Marketable securities at December 31, 2013 consisted of U.S. government agency securities, asset-backed securities, and corporate debt securities, including commercial paper, maintained by an investment manager. Marketable securities at December 31, 2012 consisted of municipal bonds, asset-backed commercial paper, asset-backed securities, and corporate debt securities, including commercial paper, maintained by an investment manager. Credit risk is reduced as a result of the Company s policy to limit the amount invested in any one issue.

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Marketable securities consist primarily of investments which have expected average maturity dates in excess of three months, but not longer than 24 months. The Company classifies these investments as available-for-sale. Unrealized gains and losses are included in other comprehensive (loss) income until realized. The cost of securities sold is based on the specific identification method. The Company sold three securities during the year ended December 31, 2013 for gross proceeds of $10.3 million and did not recognize any gain or loss on the transactions. The Company sold one security during the year ended December 31, 2012 for gross proceeds of $2.7 million and recognized an immaterial gain. No securities were sold during the year ended December 31, 2011.

Available-for-sale securities at December 31, 2013 and December 31, 2012 consist of the following:

| | Amortized Cost | Unrealized Gains | Unrealized Losses | Fair Value |
|---|---|---|---|---|
| | | (in thousands) | | |
| **December 31, 2013:** | | | | |
| Corporate debt securities (Due within 1 year) | $ 52,156 | $ 4 | $ (4) | $ 52,156 |
| Government agency securities (Due within 1 year) | 7,519 | | | 7,519 |
| Asset-backed securities (Due within 1 year) | 8,007 | | (2) | 8,005 |
| | $ 67,682 | $ 4 | $ (6) | $ 67,680 |
| **December 31, 2012:** | | | | |
| Corporate debt securities (Due within 1 year) | $ 58,751 | $ 16 | $ (11) | $ 58,756 |
| Municipal bonds (Due within 1 year) | 10,545 | | | 10,545 |
| Asset-backed securities (Due within 1 year) | 6,359 | | | 6,359 |
| Asset-backed commercial paper (Due within 1 year) | 8,806 | 2 | | 8,808 |
| | $ 84,461 | $ 18 | $ (11) | $ 84,468 |

The aggregate fair value of securities in an unrealized loss position for less than 12 months at December 31, 2013 was $45.6 million, representing 18 securities. There were no securities that were in an unrealized loss position for greater than 12 months at December 31, 2013. The unrealized loss was caused by a temporary change in the market for those securities primarily caused by changes in market interest rates. There was no change in the credit risk of the securities. To determine whether an other-than-temporary impairment exists, the Company performs an analysis to assess whether it intends to sell, or whether it would more likely than not be required to sell, the security before the expected recovery of the amortized cost basis of the security. Where the Company intends to sell a security, or may be required to do so, the security s decline in fair value is deemed to be other-than-temporary and the full amount of the unrealized loss is recorded in the statement of operations as an other-than-temporary impairment charge. When this is not the case, the Company performs additional analyses on all securities with unrealized losses to evaluate losses associated with the creditworthiness of the security. Credit losses are identified where the Company does not expect to receive cash flows, based on using a single best estimate, sufficient to recover the amortized cost basis of a security and these recognized in other (expense) income, net. The Company does not believe an other-than-temporary impairment exists with respect to those securities in an unrealized loss position at December 31, 2013.

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Marketable securities in an unrealized loss position at December 31, 2013 and 2012 consist of the following:

| | Aggregate Fair Value | Unrealized Losses |
|---|---|---|
| | (in thousands) | |
| **December 31, 2013:** | | |
| Corporate debt securities (Due within 1 year) | $ 30,106 | $ (4) |
| Government agency securities (Due within 1 year) | 7,519 | |
| Asset-backed securities (Due within 1 year) | 8,005 | (2) |
| | $ 45,630 | $ (6) |
| **December 31, 2012:** | | |
| Corporate debt securities (Due within 1 year) | $ 29,806 | $ (11) |
| Asset-backed securities (Due within 1 year) | 6,359 | |
| | $ 36,165 | $ (11) |

*Concentrations of Credit Risk*

Financial instruments that potentially subject the Company to credit risk primarily consist of cash, cash equivalents and marketable securities. The Company maintains deposits in federally insured financial institutions in excess of federally insured limits.

Management believes that the Company is not exposed to significant credit risk due to the financial position of the depository institutions in which those deposits are held.

The Company s credit risk related to marketable securities is reduced as a result of the Company s policy to limit the amount invested in any one issue.

*Fair Value Measurements*

The Company records cash equivalents and marketable securities at fair value. The accounting standards for fair value measurements establish a hierarchy that distinguishes between fair value measurements based on market data (observable inputs) and those based on the Company s own assumptions (unobservable inputs). The hierarchy consists of three levels:

Level 1 Quoted market prices in active markets for identical assets or liabilities. Assets that are valued utilizing only Level 1 inputs include money market funds.

Level 2 Inputs other than Level 1 inputs that are either directly or indirectly observable, such as quoted market prices, interest rates and yield curves. Assets that are valued utilizing Level 2 inputs include U.S. government agency securities, asset-backed securities, and corporate bonds, including commercial paper. These investments have been initially valued at the transaction price and are subsequently valued, at the end of each reporting period, utilizing third party pricing services or other observable market data. The pricing services utilize industry standard valuation models, including both income and market based approaches and observable market inputs to determine value. These observable market inputs include reportable trades, benchmark yields, credit spreads, broker/dealer quotes, bids, offers, current spot rates, and other industry and economic events. The Company validates the prices provided by third party pricing services by reviewing their pricing methods and matrices, obtaining market values from other pricing sources, analyzing pricing data in certain instances and confirming that the relevant markets are active. After completing its validation procedures, the Company did not adjust or override any fair value measurements provided by pricing services as of December 31, 2013 or December 31, 2012.

Level 3 Unobservable inputs developed using estimates and assumptions developed by the Company, which reflect those that a market participant would use. The Company currently has no assets or liabilities recorded at fair value that utilize Level 3 inputs.

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The following tables summarize the cash equivalents and marketable securities measured at fair value on a recurring basis in the accompanying consolidated balance sheets as of December 31, 2013 and 2012.

| | Fair Value Measurements of Cash Equivalents and Marketable Securities as of December 31, 2013 | | | |
|---|---|---|---|---|
| | Level 1 | Level 2 | Level 3 | Total |
| | (in thousands) | | | |
| Cash equivalents | $ 29,865 | $ 15,958 | $ | $ 45,823 |
| Marketable securities | | 67,680 | | 67,680 |
| | $ 29,865 | $ 83,638 | $ | $ 113,503 |

| | Fair Value Measurements of Cash Equivalents and Marketable Securities as of December 31, 2012 | | | |
|---|---|---|---|---|
| | Level 1 | Level 2 | Level 3 | Total |
| | (in thousands) | | | |
| Cash equivalents | $ 51,182 | $ 18,121 | $ | $ 69,303 |
| Marketable securities | | 84,468 | | 84,468 |
| | $ 51,182 | $ 102,589 | $ | $ 153,771 |

The fair value of the Company s loans payable at December 31, 2013 and 2012, computed pursuant to a discounted cash flow technique using the effective interest rate under the loan, was $20.1 million and $26.4 million, respectively. These fair values are considered a level 2 fair value measurement. The effective interest rate considers the fair value of the warrant issued in connection with the loan, loan issuance costs and a deferred charge, which approximates a market interest rate. The fair value of the Company s term loan payable is determined using current applicable rates for similar instruments as of the balance sheet date.

*Property and Equipment*

Property and equipment are stated at cost and are depreciated using the straight-line method over the estimated useful lives of the respective assets. Maintenance and repair costs are charged to expense as incurred.

*Long-lived Assets*

The Company reviews long-lived assets, including property and equipment, for impairment whenever changes in business circumstances indicate that the carrying amount of the asset may not be fully recoverable. During the year ended December 31, 2013, the Company recognized $0.1 million of impairment losses. No impairment losses were recognized during the years ended December 31, 2012 or 2011.

*Stock-Based Compensation*

Under the Company s stock-based compensation programs, the Company periodically grants stock options and restricted stock to employees, directors and nonemployee consultants. The Company also issues shares under an employee stock purchase plan. The fair value of all awards is recognized in the Company s statements of operations over the requisite service period for each award. Awards that vest as the recipient provides service are expensed on a straight-line basis over the requisite service period. Other awards, such as performance-based awards that vest upon the achievement of specified goals, are expensed using the accelerated attribution method if achievement of the specified goals is considered probable.

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The fair value of equity-classified awards to employees and directors are measured on the date the awards are granted. During the years ended December 31, 2013, 2012 and 2011, the Company recorded the following stock-based compensation expense for equity-classified awards:

| | Years Ended December 31, | | |
|---|---|---|---|
| | 2013 | 2012 | 2011 |
| | | (in thousands) | |
| Research and development | $ 1,991 | $ 3,566 | $ 2,504 |
| General and administrative | 1,800 | 4,380 | 3,399 |
| Restructuring | | 61 | |
| Total stock-based compensation expense | $ 3,791 | $ 8,007 | $ 5,903 |

Liability-classified awards to employees and directors are re-measured to the award s fair value as of each balance sheet date until the award is settled. The Company recorded $0.1 million in compensation expense for liability-classified awards during the year ending December 31, 2013. No costs associated with liability-classified awards were recognized during the years ended December 31, 2012 or 2011.

Awards to nonemployee consultants are recorded at their fair values and re-measured to the award s fair value as of each balance sheet date until the recipient s services are complete.

Stock-based compensation expense is allocated to research and development and general and administrative expense based upon the department of the employee to whom each award was granted. No related tax benefits of the stock-based compensation expense have been recognized.

*Income Taxes*

The Company provides for income taxes using the asset-liability method. Under this method, deferred tax assets and liabilities are recognized based on differences between financial reporting and tax bases of assets and liabilities, and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. Uncertain tax positions are recognized if the position is more-likely-than-not to be sustained upon examination by a tax authority. Unrecognized tax benefits represent tax positions for which reserves have been established.

*Segment and Geographic Information*

Operating segments are defined as components of an enterprise engaging in business activities for which discrete financial information is available and regularly reviewed by the chief operating decision maker in deciding how to allocate resources and in assessing performance. The Company views its operations and manages its business in one operating segment principally in the United States. The Company has $1.0 million of net assets located in the United Kingdom.

*Use of Estimates*

The preparation of financial statements in conformity with accounting principles generally accepted in the United States ( GAAP ) requires the Company s management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

*Reclassifications*

The Company has reclassified the tenant improvement allowance receivable from prepaid expenses and other current assets on the consolidated balance sheets to a separate financial statement line to conform to the current period presentation.

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**3. (Loss) Earnings Per Common Share**

Basic (loss) earnings per share is computed by dividing net (loss) income available to common stockholders by the weighted-average number of common shares outstanding during the period. Diluted earnings per share is computed by dividing net income available to common stockholders by the weighted-average number of common shares and dilutive common share equivalents then outstanding. Potential common share equivalents consist of restricted stock awards and the incremental common shares issuable upon the exercise of stock options and warrants. Under the treasury stock method, unexercised in-the-money stock options are assumed to be exercised at the beginning of the period or at issuance, if later. The assumed proceeds are then used to purchase common shares at the average market price during the period. Stock-based payment awards that entitle their holders to receive non-forfeitable dividends before vesting are considered participating securities and are included in the calculation of basic and diluted earnings per share. Common share equivalents have not been included in the net loss per share computation for the years ended December 31, 2013 and 2012 because their effect is anti-dilutive.

Basic and diluted (loss) earnings per share for the years ended December 31, 2013, 2012 and 2011 are as follows:

| | Years Ended December 31, | | |
|---|---|---|---|
| | 2013 | 2012 | 2011 |
| | (in thousands, except per share amounts) | | |
| **Basic (loss) earnings per share** | | | |
| Net (loss) income | $ (107,029) | $ (114,394) | $ 30,648 |
| Income allocated to participating securities | | | (46) |
| (Loss) income available to common stockholders | (107,029) | (114,394) | 30,602 |
| Basic weighted average common shares outstanding | 50,928 | 43,374 | 39,715 |
| Basic (loss) earnings per share | $ (2.10) | $ (2.64) | $ 0.77 |
| **Diluted (loss) earnings per share** | | | |
| Net (loss) income | $ (107,029) | $ (114,394) | $ 30,648 |
| Income allocated to participating securities | | | (45) |
| (Loss) income available to common stockholders | (107,029) | (114,394) | 30,603 |
| Weighted average common shares outstanding | 50,928 | 43,374 | 39,715 |
| Diluted potential common shares | | | 1,758 |
| Diluted weighted average common shares and potential common shares | 50,928 | 43,374 | 41,473 |
| Diluted (loss) earnings per share | $ (2.10) | $ (2.64) | $ 0.74 |

The following potentially dilutive securities were excluded from the calculation of diluted net (loss) earnings per share due to their anti-dilutive effect:

| | Years Ended December 31, | | |
|---|---|---|---|
| | 2013 | 2012 | 2011 |
| | (in thousands) | | |
| Outstanding stock options | 4,297 | 4,638 | 276 |
| Unvested restricted stock | 242 | 245 | |

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**4. Property and Equipment**

Property and equipment consists of the following:

| | Estimated Useful Life | December 31, 2013 | December 31, 2012 |
|---|---|---|---|
| | | (in thousands) | |
| Laboratory equipment | 5 years | $ 8,660 | $ 9,299 |
| Computer equipment and software | 3 years | 4,398 | 3,480 |
| Office furniture | 5 years | 930 | 579 |
| Leasehold improvements | Shorter of asset s useful life or remaining term of lease | 11,959 | 5,090 |
| Construction in process | | 3,193 | 6,956 |
| | | 29,140 | 25,404 |
| Less accumulated depreciation and amortization | | (15,000) | (12,537) |
| Property and equipment, net | | $ 14,140 | $ 12,867 |

Depreciation expense for the years ended December 31, 2013, 2012 and 2011 was $3.8 million, $2.5 million and $1.7 million, respectively.

**5. Accrued Expenses**

Accrued expenses consisted of the following:

| | December 31, 2013 | December 31, 2012 |
|---|---|---|
| | (in thousands) | |
| Clinical expenses | $ 5,319 | $ 6,688 |
| Salaries and benefits | 2,027 | 6,015 |
| Property and equipment | 1,905 | 377 |
| Manufacturing and distribution | 1,362 | 670 |
| Professional fees | 811 | 430 |
| Restructuring | 587 | 1,653 |
| Collaboration expenses | | 1,807 |
| Pre-commercialization expenses | | 924 |
| Other | 1,252 | 979 |
| | $ 13,263 | $ 19,543 |

**6. Loans Payable**

In May 2010, the Company entered into a loan and security agreement (the Loan Agreement ) with Hercules Technology II, L.P. and Hercules Technology III, L.P., affiliates of Hercules Technology Growth (collectively, Hercules ), pursuant to which the Company received a loan in the aggregate principal amount of $25.0 million. The Company was initially required to repay the aggregate principal balance under the Loan Agreement in 30 equal monthly installments of principal starting on April 1, 2011; however, the Loan Agreement provided that such date would be extended under certain circumstances. During 2011, the Company triggered two possible extensions to the date from which principal payments were to be made and, as a result, the initial date for principal repayment was extended to January 1, 2012. On March 31, 2012, the Company entered into an amendment to the Loan Agreement, pursuant to which the Company increased the principal amount under the Loan Agreement to $26.5 million. Under the amendment to the Loan Agreement, the date on which the Company was required to begin repaying the aggregate principal balance was extended to March 31, 2013, at which point the Company began to repay such balance in 30 equal monthly

installments. The Company accounted for this amendment as a loan modification.

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Per annum interest on the principal balance of the loan is payable at the greater of 11.9% and an amount equal to 11.9% plus the prime rate of interest minus 4.75%, provided however, that the per annum interest shall not exceed 15.0%. The Company must make interest payments on the loan each month following the date of borrowing under the Loan Agreement. The unpaid principal balance and all accrued but unpaid interest will be due and payable on September 1, 2015. The loan is secured by a lien on all of the Company s personal property as of, or acquired after, the date of the Loan Agreement, except for intellectual property.

The Loan Agreement required a deferred charge of $1.25 million which was paid in May 2012 related to the amendment of the Loan Agreement. The Loan Agreement also includes an additional deferred charge of $1.24 million due in June 2014 which has been recorded as a loan discount and is being amortized to interest expense over the term of the Loan Agreement using the effective interest rate method. The Company recorded a liability for the full amount of the charge since the payment of such amount is not contingent on any future event. The Company incurred approximately $0.2 million in loan issuance costs paid directly to the lenders related to the Loan Agreement, which were offset against the loan proceeds and are accounted for as a loan discount. As part of the Loan Agreement, the Company issued warrants to the lenders on June 2, 2010 to purchase up to 156,641 shares of the Company s common stock at an exercise price equal to $7.98 per share. The Company recorded the relative fair value of the warrants of approximately $0.8 million as stockholders equity and as a discount to the related loan outstanding and is amortizing the value of the discount to interest expense over the term of the loan using the effective interest method. The relative fair value of the warrants was calculated using the Black-Scholes option-pricing model with the following assumptions: volatility of 64.12%, an expected term equal to the contractual life of the warrant (seven years), a risk-free interest rate of 2.81% and no dividend yield. The resulting effective interest rate for the loans outstanding under the Loan Agreement is approximately 13.1%.

Hercules also received an option, subject to the Company s written consent, not to be unreasonably withheld, to purchase, either with cash or through conversion of outstanding principal under the loan, up to $2.0 million of equity of the Company sold in any sale by the Company to third parties of equity securities resulting in at least $10.0 million in net cash proceeds to the Company, subject to certain exceptions. The Company has evaluated the embedded conversion option, and has concluded that it does not need to be bifurcated and separately accounted for. No amount will be recognized for the conversion feature until such time as the conversion feature is exercised and it can be determined whether a beneficial conversion feature exists. As of December 31, 2013, the principal balance outstanding was $19.4 million.

The Loan Agreement defines events of default, including the occurrence of an event that results in a material adverse effect upon the Company s business operations, properties, assets or condition (financial or otherwise), its ability to perform its obligations under and in accordance with the terms of the Loan Agreement, or upon the ability of the lenders to enforce any of their rights or remedies with respect to such obligations, or upon the collateral under the Loan Agreement, the related liens or the priority thereof. As of December 31, 2013, the lenders have not asserted any events of default under the loan. While the Company does not believe that there has been a material adverse change, as defined in the Loan Agreement, it is possible that Hercules could take the position that the adverse outcome relating to the development and commercialization of tivozanib for RCC, including the FDA informing the Company that it would not approve the NDA for tivozanib for the treatment of patients with advanced RCC, the related shareholder litigation described below in Footnote 15 Legal Actions, and Astellas decision to terminate its collaboration with the Company, collectively constitutes a material adverse change, and, accordingly, an event of default, which could trigger a repayment of all principal and interest due under the loan unless such event of default is waived by Hercules. The Company has classified the principal amount of the loan as current and non-current on its consolidated balance sheet based upon the expected timing of the remaining payments.

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Future minimum payments under the loans payable outstanding as of December 31, 2013 are as follows (amounts in thousands):

| | |
|---|---|
| **Years Ending December 31:** | |
| 2014 | 13,547 |
| 2015 | 9,309 |
| | 22,856 |
| Less amount representing interest | (2,221) |
| Less discount | (192) |
| Less deferred charges | (1,238) |
| Less current portion | (10,383) |
| Loans payable, net of current portion | $ 8,822 |

**7. Collaboration and License Agreements**

*(a) Out-License Agreements*

*Astellas Pharma Inc.*

In February 2011, the Company, together with its wholly-owned subsidiary AVEO Pharma Limited, entered into a Collaboration and License Agreement with Astellas (the Astellas Agreement ), pursuant to which the Company and Astellas intended to develop and commercialize tivozanib for the treatment of a broad range of cancers. Under the terms of the Astellas Agreement, the Company and Astellas share responsibility for continued development and commercialization of tivozanib in North America and in Europe under a joint development plan and a joint commercialization plan, respectively. Throughout the rest of the world (the Royalty Territory ), excluding Asia, where Kyowa Hakko Kirin ( KHK ) has retained all development and commercialization rights, Astellas has an exclusive, royalty-bearing license to develop and commercialize tivozanib. The terms of the Astellas Agreement are subject to the Company s obligations to KHK under a license agreement entered into with KHK in 2006 pursuant to which the Company acquired exclusive rights to develop and commercialize tivozanib worldwide outside of Asia.

Per the Astellas Agreement, Astellas has the right to terminate the Astellas Agreement, in its entirety or solely with respect to the Royalty Territory, at any time upon 180 days prior written notice to the Company. Either party may terminate the Astellas Agreement with respect to a specified territory or country as set forth in the Astellas Agreement, if the other party fails to cure a material breach related to such territory or country, as applicable. The Company may also terminate the Astellas Agreement in its entirety upon a patent-related challenge by Astellas, its affiliates or sublicensees if such patent-related challenge is not withdrawn within 30 days following the Company s notice to Astellas of such termination. There are no refund provisions in the Astellas Agreement.

In June 2013, the Company received a complete response letter from the FDA informing the Company that the FDA will not approve in its present form the Company s NDA for tivozanib for the treatment of patients with advanced RCC. As further noted in Footnote 16, AVEO and Astellas jointly decided in January 2014 to discontinue a Phase 2 breast cancer clinical trial due to insufficient enrollment. Further, Astellas elected in February 2014 to terminate the collaboration as a result of the limited scope of development for tivozanib moving forward after terminating a Phase 2 study in patients with colorectal cancer. This termination will be effective August 2014, at which time the tivozanib rights will be returned to the Company. In accordance with the collaboration and license agreement, committed development costs, including the costs of winding down discontinued tivozanib clinical development programs, will be shared equally.

Under the Astellas Agreement, the Company received an initial cash payment of $125.0 million, comprised of a $75.0 million license fee and $50.0 million in research and development funding. The Company retained net proceeds of approximately $97.6 million of the initial cash payment from Astellas, after payments to KHK and

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strategic, legal and financial advisors. In December 2012, the Company received a $15.0 million milestone payment from Astellas in connection with the acceptance by the FDA of the NDA filing for tivozanib. The milestone was considered substantive and revenue was recognized upon achievement of the milestone.

The Company is accounting for the joint development and commercialization activities in North America and Europe as a joint risk-sharing collaboration in accordance with ASC 808, *Collaborative Arrangements*. In addition, these activities were not deemed to be separate deliverables under the Astellas Agreement.

Payments from Astellas with respect to Astellas share of tivozanib development and commercialization costs incurred by the Company pursuant to the joint development plan are recorded as a reduction to research and development expense and general and administrative expense in the accompanying consolidated financial statements due to the joint risk-sharing nature of the activities in North America and Europe. As a result of the cost-sharing provisions in the Astellas Agreement, the Company reduced research and development expense by $15.8 million, $34.1 million and $26.7 million during the years ended December 31, 2013, 2012, and 2011, respectively. The Company also reduced general and administrative expense by $2.8 million, $3.3 million, and $1.2 million during the years ended December 31, 2013, 2012 and 2011, respectively, as a result of the cost-sharing provisions in the Astellas Agreement. The net amount due to the Company from Astellas pursuant to the cost-sharing provisions was $1.0 million at December 31, 2013.

Activities under the Astellas Agreement outside of the joint development and commercialization activities in North America and Europe, including the co-exclusive license to develop and commercialize tivozanib in North America and Europe that was delivered prior to the initiation of the collaborative activities in North America and Europe, were evaluated under ASC 605-25, *Revenue Recognition Multiple Element Arrangements* ( ASC 605-25 ) (as amended by ASU 2009-13, *Revenue Recognition* ( ASU 2009-13 )) to determine if they represented a multiple element revenue arrangement. The Astellas Agreement includes the following deliverables: (1) a co-exclusive license to develop and commercialize tivozanib in North America and Europe (the License Deliverable ); (2) a combined deliverable comprised of an exclusive royalty-bearing license to develop and commercialize tivozanib in the Royalty Territory and the Company s obligation to provide access to clinical and regulatory information resulting from the activities in North America and Europe to Astellas for its development and commercialization of tivozanib in the Royalty Territory (the Royalty Territory Deliverable ); and (3) the Company s obligation to supply clinical material to Astellas for development of tivozanib in the Royalty Territory (the Clinical Material Deliverable ). The License Deliverable is not sublicensable. Astellas has the right to sublicense the exclusive royalty-bearing license to develop and commercialize tivozanib in the Royalty Territory. The Company s obligation to provide access to clinical and regulatory information as part of the Royalty Territory Deliverable includes the obligation to provide access, upon request, to all clinical data, regulatory filings, safety data and manufacturing data to Astellas for use in the development and commercialization of tivozanib in the Royalty Territory. The Clinical Material Deliverable includes the obligation to supply clinical material to Astellas in accordance with current good manufacturing practices applicable to clinical materials and other relevant regulatory authority requirements, upon request, for the development of tivozanib in the Royalty Territory. All of these deliverables were deemed to have stand-alone value and to meet the criteria to be accounted for as separate units of accounting under ASC 605-25. Factors considered in this determination included, among other things, the subject of the licenses and the research and development and commercial capabilities of Astellas.

The Company allocated the up-front consideration of $125.0 million to the deliverables based on management s best estimate of selling price of each deliverable using the relative selling price method as the Company did not have VSOE or TPE of selling price for such deliverables. The Company s best estimate of selling price considered discounted cash flow models, the key assumptions of which included the market opportunity for commercialization of tivozanib in North America and Europe and the Royalty Territory, the probability of successfully developing and commercializing tivozanib, the remaining development costs for tivozanib, and the estimated time to commercialization of tivozanib. The Company s analysis included the following market conditions and entity-specific factors: (a) the specific rights provided under the license to develop and commercialize tivozanib in North America and Europe and the Royalty Territory, (b) the potential

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indications for tivozanib pursuant to the licenses, (c) the relevant territories for the respective licenses, (d) the stage of development of tivozanib by potential indication and estimated remaining development timelines and costs for each indication, (e) the development risk by indication, (f) the market size by indication, (g) the expected product life of tivozanib assuming commercialization and (h) the competitive environment. More specifically, the Company s discounted cash flow model included an assumption that the Company and Astellas would develop and commercialize tivozanib in North America and Europe as a monotherapy for RCC, and in combination with other known anti-cancer agents for RCC, breast cancer and colorectal cancer. Approximately 70% of the value of tivozanib in the discounted cash flow model was a result of the estimated market opportunity for tivozanib as a monotherapy for RCC. The market opportunity for commercialization of tivozanib in North America and Europe was generated using a patient-based forecasting approach, with key epidemiological, market penetration, dosing, compliance, length of treatment, and pricing assumptions derived from primary and secondary market research. While the RCC monotherapy opportunity represented the majority of the market opportunity, clinical trials for tivozanib in the breast cancer and colorectal cancer indications were in earlier stages of development and therefore had more development risk and were assigned a lower probability of success relative to the RCC indication, with a longer timeline to potential cash inflows. The probability of successfully developing and commercializing tivozanib in the various indications throughout the world (other than Asia) was estimated based on standard industry averages for similar product candidates being developed for oncology indications. The remaining development costs were estimated based upon budgets and estimated costs for ongoing and planned clinical trials in all contemplated indications. The time to commercialization was based on the Company s estimates, which projected the launch of tivozanib for RCC monotherapy in 2013. The market opportunity for the Royalty Territory was estimated based upon a specified percentage of total projected European sales and costs of tivozanib. The Company believes that this method for estimating market opportunity outside of North America, Europe and Asia is common in the pharmaceuticals industry. The Company utilized a discount rate of 15% in its analysis, representing the weighted average cost of capital derived from returns on equity for comparable companies.

The Company concluded that a change in the key assumptions used to determine best estimate of selling price for each license deliverable would not have a significant effect on the allocation of arrangement consideration.

The Company allocated up-front consideration of $120.2 million to the License Deliverable and up-front consideration of $4.8 million to the Royalty Territory Deliverable. The relative selling price of the Company s obligation under the Clinical Material Deliverable had *de minimis* value.

The Company recorded the $120.2 million relative selling price of the License Deliverable as collaboration revenue during the three months ended March 31, 2011 upon delivery of the license, and deferred approximately $4.8 million of revenue representing the relative selling price of the Royalty Territory Deliverable. The Company is recording the $4.8 million of revenue attributed to the Royalty Territory Deliverable ratably over the Company s period of performance through April 2022, the remaining patent life of tivozanib. The Company estimated the period of performance considering that the Company and Astellas plan to develop tivozanib in several indications outside of RCC, including in breast cancer and colorectal cancer and potentially in other cancer indications. The clinical development of tivozanib in these indications is in earlier stages of development and, as a result, the clinical development timeline is uncertain and is expected to change as the Company obtains additional clinical data in these indications. As a result, the Company estimated the period of performance as the remaining patent life of tivozanib as it represents the longest period over which development of tivozanib could occur. The Company reassesses the period of performance at each reporting period. The Company recorded approximately $0.4 million of revenue associated with the Royalty Territory Deliverable during each of the years ended December 31, 2013, 2012 and 2011.

Under the agreement, the Company received cash payments related to up-front license fees, reimbursable payments and milestone payments of $40.1, $39.8 million, and $146.4 million during the years ended December 31, 2013, 2012 and 2011, respectively, and recorded revenue of $0.4 million, $15.4 million and $120.6 million during the years ended December 31, 2013, 2012 and 2011, respectively.

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*Biogen Idec International GmbH*

In March 2009, the Company entered into an exclusive option and license agreement with Biogen Idec International GmbH, a subsidiary of Biogen Idec Inc., collectively referred to herein as Biogen Idec , regarding the development and commercialization of the Company s discovery-stage ErbB3-targeted antibodies for the potential treatment and diagnosis of cancer and other diseases outside of North America. Under the agreement, the Company is responsible for developing ErbB3 antibodies through completion of the first phase 2 clinical trial designed in a manner that, if successful, will generate data sufficient to support advancement to a phase 3 clinical trial. Until a specified time after the Company completes this phase 2 clinical trial and delivers to Biogen Idec a detailed data package containing the results thereof, Biogen Idec may elect to obtain (1) a co-exclusive (with the Company), worldwide license, including the right to grant sublicenses, under the Company s relevant intellectual property to develop and manufacture ErbB3 antibody products, and (2) an exclusive license, including the right to grant sublicenses, under the Company s relevant intellectual property, to commercialize ErbB3 antibody products in all countries in the world other than North America. The Company retains the exclusive right to commercialize ErbB3 antibody products in North America.

The Company accounts for the Biogen Idec arrangement pursuant to ASC 605-25. The deliverables under the arrangement include an option for a co-exclusive, worldwide license to develop and manufacture ErbB3 antibody products and an option for an exclusive license to commercialize ErbB3 antibody products in all countries in the world other than North America. The Company determined that these deliverables did not have standalone value due to the fact that the program was still in preclinical development and required the Company s experience to advance development of the product. As such, the Company determined that the agreement should be accounted for as one unit of accounting.

Under the terms of the agreement, Biogen Idec paid the Company an up-front cash payment of $5.0 million in March 2009, which is being amortized over the Company s period of substantial involvement, defined as the patent life of the development candidate. In addition, Biogen Idec purchased 7,500,000 shares of Series E Convertible Preferred Stock at a per share price of $4.00, resulting in gross proceeds to the Company of $30.0 million. In connection with the initial public offering consummated by the Company in March 2010 and the related 1:4 reverse stock split of the common stock, each four shares of outstanding Series E Convertible Preferred Stock were converted into one share of common stock. The Company determined that the per share price of $4.00 paid by Biogen Idec included a premium of $1.09 per share over the fair value of the Series E Convertible Preferred Stock of $2.91 as calculated by the Company in its retrospective stock valuation. Accordingly, the Company is recognizing the premium of $8.2 million as revenue on a straight-line basis over the period of substantial involvement. The Company earned a $5.0 million milestone payment for achievement of the first pre-clinical discovery milestone under the agreement in June 2009 which was not considered at risk and was therefore deferred and is being recognized over the period of substantial involvement. The Company earned a second $5.0 million milestone payment upon selection of a development candidate in March 2010. This milestone was considered substantive and was included in revenue for the quarter ended March 31, 2010. The Company earned a third $5.0 million milestone payment based on achieving the GLP toxicology initiation milestone in June 2011. This milestone was considered substantive and was included in revenue for the quarter ended June 30, 2011. The Company could also receive an option exercise fee of $5.0 million and regulatory milestone payments of up to $45.0 million in the aggregate if Biogen Idec exercises its option to obtain exclusive rights to commercialize ErbB3 antibody products in its territory. The first regulatory milestone that the Company may receive pursuant to this agreement of $25.0 million is due upon the receipt of the first regulatory approval of a licensed product from the EMA. The Company does not expect to achieve this milestone in the near future. The Company did not earn any milestones under this arrangement during the year ended December 31, 2013.

If Biogen Idec exercises its exclusive option under the agreement, Biogen Idec will pay the Company royalties on Biogen Idec s sales of ErbB3 antibody products in its territory, and the Company will pay Biogen Idec royalties on the Company s sale of ErbB3 antibody products in North America.

Under the agreement, the Company received cash payments related to up-front license fees, milestone payments, and equity of $5.0 million during the year ended December 31, 2011, and recorded revenue of $0.9 million, $0.9 million and $5.9 million during the years ended December 31, 2013, 2012 and 2011, respectively.

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*OSI Pharmaceuticals Inc.*

In September 2007, the Company entered into a collaboration and license agreement with OSI Pharmaceuticals, Inc. (a wholly-owned subsidiary of Astellas US Holding Inc., a holding company owned by Astellas Pharma Inc.), or OSI, which provided for the use of the Company s proprietary *in vivo* models by the Company s scientists at its facilities, use of the Company s bioinformatics tools and other target validation and biomarker research to further develop and advance OSI s small molecule drug discovery and translational research related to cancer and other diseases. In July 2009, the Company and OSI expanded the strategic partnership, and the Company granted OSI a non-exclusive license to use the Company s proprietary bioinformatics platform, and non-exclusive perpetual licenses to use bioinformatics data and the Company s proprietary gene index related to a specific target pathway. Further, as part of the expanded strategic partnership, the Company granted OSI an option, exercisable upon payment of an option fee, to receive non-exclusive perpetual rights to certain elements of the Company s Human Response Platform and to use the Company s bioinformatics platform, and the Company granted OSI the right to obtain certain of its tumor models and tumor archives.

The Company accounted for the OSI arrangement pursuant to ASC 605-25. The deliverables under the arrangement were accounted for as a single unit of accounting. OSI paid the Company an up-front payment of $7.5 million, which was recognized as revenue through July 2011 (the date the Company satisfied its performance obligations under the OSI arrangement). OSI also paid the Company $2.5 million for the first year of research program funding, which was recognized as revenue over the performance period and, thereafter, OSI made research payments of $0.6 million per quarter through July 2009. In addition, OSI purchased 1,833,334 shares of Series C Convertible Preferred Stock, at a per share price of $3.00, resulting in gross proceeds to the Company of $5.5 million. The Company determined that the price paid of $3.00 per share by OSI included a premium of $0.50 over the price per share of the Company s Series D Convertible Preferred Stock sold in April 2007; accordingly, the Company recognized the premium of $0.9 million as additional license revenue on a straight-line basis through July 2011. In connection with the initial public offering consummated by the Company in March 2010 and the related 1:4 reverse stock split of the common stock, each four shares of outstanding Series C Convertible Preferred Stock were converted into one share of common stock.

In consideration for the additional rights provided for pursuant to the July 2009 expanded agreement, OSI paid the Company an up-front payment of $5.0 million, which was recognized as revenue ratably through July 2011. OSI also agreed to fund research costs through June 30, 2011. In addition, OSI purchased 3,750,000 shares of Series E Convertible Preferred Stock, at a per share price of $4.00, resulting in gross proceeds to the Company of $15.0 million. In connection with the initial public offering consummated by the Company in March 2010 and the related 1:4 reverse stock split of the common stock, each four shares of outstanding Series E Convertible Preferred Stock were converted into one share of common stock. The Company determined that the price of $4.00 per share paid by OSI included a premium of $1.04 per share over the fair value of the Series E Convertible Preferred Stock of $2.96 as calculated by the Company in its retrospective stock valuation. Accordingly, the Company recognized the premium of $3.9 million as additional license revenue ratably through July 2011.

Under the July 2009 expanded agreement, if all applicable milestones are achieved, all remaining payments for the successful achievement of discovery, development and commercialization milestones could total, in the aggregate, over $46.0 million, comprised of approximately (i) $8.4 million in substantive milestone payments upon achievement of specified clinical and development milestone events, (ii) $20.7 million in substantive milestone payments upon achievement of specified regulatory milestone events, and (iii) $17.5 million in milestone payments upon the achievement of specified sales events. In addition, the Company is eligible to receive up to $24.0 million in biomarker-related milestones.

In March 2011, the Company earned $1.5 million related to achieving certain of the biomarker-related milestones under the agreement. These milestones were not considered to be substantive; therefore, the $1.5 million in payments was deferred and was recognized ratably through July 2011. In May 2012, the Company earned a patent-related milestone payment of $0.3 million upon filing of a patent application by OSI,

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and the Company also earned a clinical and development milestone payment of $0.8 million for commencement by OSI of GLP toxicology studies. Since these milestones were considered substantive, they were recorded as revenue during the year ended December 31, 2012.

The next milestone payment that the Company may receive pursuant to this agreement is a $2.0 million clinical and development milestone for phase 1 clinical trial dosing in the United States. The Company does not expect to achieve this milestone in the near future. The next regulatory milestone payment the Company may receive pursuant to this agreement is $7.0 million to be achieved for the filing of an NDA with the FDA. The Company does not expect to achieve this milestone in the near future. Upon commercialization of products under the agreement, the Company is eligible to receive tiered royalty payments on sales of products by OSI, its affiliates and sublicensees. All milestone payments earned prior to July 2011 are for selection of targets, delivery of models, delivery of tumor archives or delivery of cell lines.

In November 2010, OSI exercised its option under the July 2009 expanded agreement providing the right for OSI to license certain elements of the Company s proprietary technology platform, including components of the Human Response Platform for the identification/characterization of novel epithelial-mesenchymal transition agents and proprietary patient selection biomarkers, in support of OSI s clinical development programs. The Company did not consider the option granted to OSI in July 2009 as a deliverable as there was significant uncertainty that this option would ultimately be exercised. The Company received $12.5 million upon delivery of the notice of option exercise, and completed the transfer of the relevant technology to OSI in July 2011. The remaining $12.5 million was paid in July 2011 following the successful transfer of the applicable technology. The Company deferred the initial $12.5 million payment, and recognized the full $25.0 million relating to the option exercise by OSI over the technology transfer period, which was completed in July 2011.

Under these agreements, the Company received cash payments related to up-front license fees, milestone payments, research and development funding and purchase of equity of $1.0 million and $16.5 million, and recorded revenue of $1.0 million and $29.6 million, during the years ended December 31, 2012 and 2011, respectively.

*Centocor Ortho Biotech Inc.*

In May 2011, the Company entered into an exclusive license agreement (the Centocor License Agreement ) with Centocor Ortho Biotech Inc. ( Centocor ), for the worldwide development and commercialization of the Company s internally-discovered antibodies targeting the RON receptor (Recepteur d Origine Nantais), including the grant to Centocor of an exclusive, worldwide license to the Company s proprietary RON-driven tumor models. The Company also granted Centocor a non-exclusive, non-sublicensable, worldwide license to the Company s proprietary list of human genes intended to predict correlation of response to RON-targeted antibodies (the RON index ). On September 7, 2012, the Company received notice from Centocor of termination of the Centocor License Agreement, effective on December 6, 2012, at which point all rights to and the responsibility for future research and development, manufacturing and commercialization activities and costs of the RON antibody program granted to Centocor under the Centocor License Agreement returned to the Company.

In connection with the Centocor License Agreement, the Company received a one-time cash payment in the amount of $7.5 million and a separate equity investment in the amount of approximately $7.5 million through the purchase by Johnson & Johnson Development Corporation, an affiliate of Centocor, of 438,340 newly issued shares of the Company s common stock at a purchase price of $17.11 per share, which reflected the average of the daily volume weighted average prices for the Company s common stock for the 30 consecutive trading days ending on May 26, 2011. This weighted average sales price of $17.11 per share resulted in a $1.22 per share discount from the May 31, 2011 closing price of $18.33 per share, or a discount of $534,775 from the fair market value of the common stock on the effective date of the Centocor License Agreement. The Company determined this transaction was not within the scope of ASC 605-25 and, accordingly, the Company recorded the sale of common stock to Johnson & Johnson Development Corporation at fair value based on the closing price of the Company s stock on May 31, 2011 of $18.33 per share. Centocor also funded certain research which the Company conducted during the term of the Centocor License Agreement, which, as noted above, terminated on December 6, 2012.

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The remaining activities under the Centocor License Agreement were evaluated under ASC 605-25 (as amended by ASU 2009-13) to determine if they represented a multiple element revenue arrangement. The Company determined that the Centocor License Agreement included the following deliverables:

- an exclusive, sublicensable commercialization and development license related to RON antibodies (the RON license );
- a non-exclusive license to use the Company s RON index (the RON Index license ); and
- the Company s obligation to provide research services.

The Company determined that each deliverable had stand-alone value upon delivery and therefore represents a separate unit of accounting. Factors considered in this determination included, among other things, the subject of the licenses and the research and development and commercial capabilities of Centocor.

The Company excluded the fair value of the common stock purchased by Johnson & Johnson Development Corporation from the arrangement consideration to be allocated to the identified deliverables and allocated the remaining $7.0 million of up-front consideration attributable to the deliverables based on the relative selling price method. The Company determined the estimated selling price for the RON license and the RON Index license based on management s best estimate of selling price as the Company did not have VSOE or TPE of selling price for those deliverables. In determining its best estimate of selling price for the RON license and the RON Index license, the Company considered market conditions as well as entity-specific factors, including those factors contemplated in negotiating the Centocor License Agreement and internally developed revenue models. The Company s best estimate of selling price for the RON license and RON Index license considered discounted cash flow models, the key assumptions of which included the market opportunity for commercialization of a potential product candidate using the RON receptor worldwide, an estimate of costs related to phase 1, 2 and 3 clinical studies with certain multiplication factors related to the probability of success, and the time to commercialization of a potential product candidate. This analysis used various assumptions that the Company believed were typical for similarly staged monoclonal antibodies and what it believed to be reasonable cost assumptions in determining research and development, and sales, general and administrative costs. More specifically, the Company believed that its estimate of peak revenues was consistent with what might be expected from an approved antibody product. Other key assumptions included: cost of goods sold, which was assumed to be a specified percentage of revenues based on estimated cost of goods sold of a typical oncology antibody product; clinical trial costs, which were based on estimated clinical costs for a single phase 1 safety study, followed by phase 2 and 3 studies for a single oncology indication; and sales and marketing costs, which were based on the costs required to field an oncology sales force and marketing group, including external costs required to promote an oncology product. The factors used to estimate the probability of success and the time to commercialization of a product candidate were based on standard industry averages for antibodies being developed for oncology indications. The results of the Company s analysis indicated an estimated selling price for the licenses of approximately $39 million. The analysis used a weighted average cost of capital of 15% derived from returns on equity for comparable companies.

With respect to the research services, the Company considered the nature of the research services to be provided (basic translational research related to a pre-clinical, antibody-based technology) and the fact that other vendors could provide the research services. As a result, the Company concluded that TPE of selling price existed for the research services deliverable. In supporting TPE of selling price, the Company considered the nature of the research services, the rates charged by vendors in the marketplace for similar services and rates charged by the Company for other non-complex, pre-clinical research services in its other license and development agreements.

As the relative selling price of the RON license and RON Index license (the delivered items) exceeded the up-front consideration attributable to the deliverables of $7.0 million, the entire up-front payment was recognized as revenue upon delivery of the licenses during the three months ended June 30, 2011. The Company concluded that a change in the assumptions used to determine estimated selling price for the units of accounting would not have a significant effect on the allocation of arrangement consideration.

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The Company recorded revenue related to research and development services as the services were delivered at the contractual rate, which approximated fair value for those services. Under the agreement, the Company received cash payments related to up-front license fees, research and development services, and the purchase of equity of $2.3 million and $16.3 million, and recorded revenue of $2.0 million and $8.8 million, during the years ended December 31, 2012 and 2011, respectively. The Company did not recognize any revenue related to milestones under this arrangement.

***Schering-Plough Corporation (now Merck)***

In March 2007, the Company entered into an agreement with Schering-Plough Corporation (now Merck), through its subsidiary Schering Corporation, acting through its Schering-Plough Research Institute division, under which the Company granted Merck exclusive, worldwide rights to develop and commercialize all of our monoclonal antibody antagonists of HGF, including ficlatuzumab, for therapeutic and prophylactic use in humans and for veterinary use. The Company also granted Merck an exclusive, worldwide license to related biomarkers for diagnostic use. Merck was responsible for all costs related to the clinical development of ficlatuzumab and clinical and commercial manufacturing. As of December 27, 2010, the effective date of the termination of the Company s collaboration with Merck relating to ficlatuzumab, the Company became responsible for all process development and all manufacturing of ficlatuzumab for future development and commercialization. In March 2011, in connection with the transition of responsibility for the ficlatuzumab program from Merck back to the Company, the Company made a $10.2 million payment to Merck for the purchase of a supply of ficlatuzumab to support ongoing clinical studies and expensed such payment during the year ended December 31, 2011, as title passed to the Company.

*(b) In-license Agreements*

*Kirin Brewery Co. Ltd. (KHK)*

In December 2006, the Company entered into an exclusive license agreement, with the right to grant sublicenses, subject to certain restrictions, with Kirin Brewery Co. Ltd. (now Kyowa Hakko Kirin) ( KHK ) to research, develop, manufacture and commercialize tivozanib, pharmaceutical compositions thereof and associated biomarkers in all territories in the world except for Asia (the KHK Agreement ). Upon entering into the KHK Agreement, the Company made a cash payment in the amount of $5.0 million.

In March 2010, the Company made a $10.0 million milestone payment to KHK in connection with the dosing of the first patient in the Company s phase 3 clinical trial of tivozanib. The Company recorded $22.5 million of research and development expense during the year ended December 31, 2011 associated with a payment made to KHK related to the up-front license payment received under the Astellas Agreement. In December 2012, the Company made a $12.0 million milestone payment to KHK in connection with the acceptance by the FDA of the Company s NDA filing for tivozanib, all of which was expensed as research and development expense during the year ended December 31, 2012. In connection with this payment, $6.0 million was reimbursed from Astellas and recorded as a reduction of research and development expense.

Under the KHK Agreement, the Company may be required to (i) make future milestone payments upon the achievement of specified regulatory milestones in the United States, including a possible milestone payment of $18.0 million to KHK in connection with the FDA granting marketing approval in the United States, (ii) pay tiered royalty payments on net sales it makes of tivozanib in its territory ranging from the low to mid-teens as a percentage of the Company s net sales of tivozanib, and (iii) pay 30% of certain amounts the Company receives under the Astellas Agreement in connection with Astellas development and commercialization activities in Europe and the Royalty Territory related to tivozanib, including up-front license fees, milestone payments and royalties the Company may receive from Astellas (including a potential $4.5 million milestone payable to KHK in connection with the acceptance by the EMA of the filing of a Marketing Authorization Application and $9.0 million to KHK in connection with the EMA granting marketing approval in Europe), other than amounts the Company receives in respect of research and development funding or equity investments, subject to certain limitations.

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The license agreement will remain in effect until the expiration of all of the Company s royalty and sublicense revenue obligations to KHK unless either party elects to terminate the license agreement earlier. If the Company fails to meet its obligations under the agreements and is unable to cure such failure within specified time periods, KHK can terminate the agreement, resulting in a loss of the Company s rights to tivozanib and an obligation to assign or license to KHK any intellectual property rights the Company may have in tivozanib.

*St. Vincent s Hospital*

In July 2012, the Company entered into a license agreement with St Vincent s Hospital Sydney Limited, which the Company refers to as St. Vincent s, under which the Company obtained an exclusive, worldwide license, with the right to grant sublicenses subject to certain restrictions, under specified patent rights and related know-how, to research, develop, manufacture and commercialize products for human therapeutic, preventative and palliative applications that benefit from inhibition or decreased expression or activity of MIC-1, which the Company refers to as GDF-15. The Company is exploiting this license in its AV-380 program for cachexia. The Company has a right of first negotiation to obtain an exclusive license to certain improvements that St. Vincent s or third parties may make to licensed therapeutic products. Under the license agreement, St. Vincent s also granted us non-exclusive rights for certain related diagnostic products and research tools.

Under the license agreement, the Company is obligated to use diligent efforts to conduct research and clinical development and commercially launch at least one licensed therapeutic product, and to maximize profits from licensed therapeutic products for the benefit of us and St. Vincent s. Subject to certain conditions, the Company has also agreed to achieve specified research, development and regulatory milestones by specified dates. If the Company does not achieve a given milestone by the agreed date, the Company has the option of paying the amount the Company would have been obligated to pay had the Company timely achieved the milestone, and, if the Company does so, St. Vincent s will not have the right to terminate the license agreement based on its failure to timely achieve such milestone.

The Company has also agreed that, for as long as there is a valid claim in the licensed patents, the Company will not, and the Company will ensure that its affiliates and its sublicensees do not, develop or commercialize any product, other than a licensed therapeutic product, for the treatment, prevention or prophylaxis of cachexia, decreased appetite or body weight, that binds to GDF-15 or the GDF-15 receptor and that is a GDF-15 antagonist, and will not license or induce any other person to do the same.

In connection with entering into the license agreement with St. Vincent s, the Company paid St. Vincent s an upfront license fee of $0.7 million and a low five-figure amount to reimburse St. Vincent s for patent-related expenses it incurred with respect to a specified licensed patent.

Under the Company s license agreement with St. Vincent s, the Company may be required to:

- make milestone payments, up to an aggregate total of $9.2 million, upon achievement of specified research, development and regulatory milestones for the first three indications for licensed therapeutic products, some of which payments may be increased by a mid to high double-digit percentage rate for milestones payments made after the Company grants any sublicense under the license agreement, depending on the sublicensed territory or territories;

- pay tiered royalty payments equal to a low-single-digit percentage of any net sales the Company or its sublicensees make of licensed therapeutic products. The royalty rate escalates within the low-single-digit range during each calendar year based on increasing licensed therapeutic product sales during such calendar year. The Company s royalty payment obligations for a licensed therapeutic product in a particular country end on the later of 10 years after the date of first commercial sale of such licensed therapeutic product in such country or expiration of the last-to-expire valid claim of the licensed patents covering such licensed therapeutic product in such country, and are subject to offsets under certain circumstances;

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pay St. Vincent s sublicensing fees of up to an aggregate amount in the low-to-mid six-digits, depending on the sublicensed territory or territories, at the time the Company grants any sublicense; and

reimburse St. Vincent s for some or all of the reasonable costs and expenses it incurs in patent management, filing, prosecuting and maintaining the licensed patents.

The license agreement will remain in effect until the later of 10 years after the date of first commercial sale of licensed therapeutic products in the last country in which a commercial sale is made, or expiration of the last-to-expire valid claim of the licensed patents, unless the Company elects, or St. Vincent s elects, to terminate the license agreement earlier.

Either party has the right to terminate the agreement in connection with a material breach of the agreement by the other party that remains uncured for a specified cure period, or in connection with events relating to the other party s insolvency or bankruptcy, or if a force majeure event continues for more than 4 months.

St. Vincent s has the right to terminate the agreement due to any patent-related challenge by the Company, its affiliates or any sublicensee, or if the Company or its affiliates or any sublicensee cause or induce any other person to make a patent-related challenge, and such challenge continues after a specified cure period.

The Company has the right to terminate the agreement on 6 months notice if the Company terminates its GDF-15 research and development programs as a result of the failure of a licensed therapeutic product in pre-clinical or clinical development, or if the Company forms the reasonable view that further GDF-15 research and development is not commercially viable, and the Company is not then in breach of any of its obligations under the agreement. If the Company forms the reasonable view that further GDF-15 research and development is not commercially viable and terminate the agreement before the Company starts a phase 1 clinical trial on a licensed therapeutic product, the Company will be required to pay St. Vincent s a low-to-mid six-figure termination payment.

The Company may also terminate the agreement on 60 days notice if certain licensed patents become invalid or unenforceable prior to July 2014, are not in breach of any of the Company s obligations under the agreement, and the Company, its affiliates and sublicensees have not made a patent-related challenge.

Any termination of the agreement, in whole or in part, will result in a loss of the Company s rights to the relevant licensed patents and know-how. If St. Vincent s terminates the agreement in its entirety due to the Company s breach, insolvency or a patent-related challenge, or the Company terminates the agreement due to a development failure or lack of commercial viability, as described above, St. Vincent s will have a non-exclusive license from us to certain intellectual property rights and know-how relating to the licensed therapeutic products, and the Company must transfer to St. Vincent s certain then-existing regulatory approvals and related documents for the licensed therapeutic products.

*Other License Agreements*

The Company has entered into various cancelable license agreements for patented technology and other technology related to research projects, including technology to humanize ficlatuzumab, AV-203 and other antibody product candidates. The Company is obligated to pay annual maintenance payments of $25,000, which are recognized as research and development expense over the maintenance period. Under an additional agreement, if the parties agree to the use of the licensed technology in development of a product, the Company will be required to make a $1.0 million license payment per product. Three of these agreements also include development and sales-based milestones of up to $22.5 million, $5.5 million and $4.2 million per product, respectively, and single digit royalties as a percentage of sales.

Certain other research agreements require the Company to remit royalties in amounts ranging from 0.5% to 1.5% based on net sales of products utilizing the licensed technology. Total license expense incurred under these

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other license agreements amounted to $0.3 million and $0.5 million during the years ended December 31, 2012 and 2011, respectively. No expenses were incurred during the year ended December 31, 2013. The Company has not paid any royalties to date.

**8. Commitments and Contingencies**

*Operating Leases*

The Company leases office and lab space and equipment under various operating lease agreements. Rent expense under the operating leases amounted to $9.4 million, $7.8 million and $2.7 million for the years ended December 31, 2013, 2012 and 2011, respectively.

In July 2004, the Company entered into a sublease agreement with Millennium Pharmaceuticals, Inc., to sublease 55,200 square feet of office and lab space located at 75 Sidney Street in Cambridge, MA. The sublease expired on February 28, 2014. In conjunction with the signing of this lease, the Company entered into a standby letter of credit in the amount of $0.6 million to expire on July 12, 2005, subject to automatic extensions for periods of one year as a security deposit on said lease. The letter of credit has been collateralized by a money market account held by the bank which issued the letter of credit and has been automatically extended through July 12, 2014. The Company has classified this money market account within restricted cash on its balance sheets at December 31, 2013 and 2012. The Company received six free months of rent under this arrangement and has recorded rent on a straight-line basis over the lease term resulting in deferred rent of approximately $42,000 and $0.3 million at December 31, 2013 and 2012, respectively.

On February 28, 2011, the Company entered into a sublease agreement with Acceleron Pharma, Inc. to sublease 14,214 square feet of office space located at 12 Emily Street in Cambridge, MA. The sublease will expire on May 30, 2015. In conjunction with the lease, the Company entered into a standby letter of credit in the amount of $0.1 million, which will expire on May 31, 2014 subject to automatic extensions for periods of one year related to the term of the sublease. The letter of credit has been collateralized by a money market account held by the bank which issued the letter of credit. The Company has classified the money market account within restricted cash on its balance sheet at December 31, 2013 and 2012. This sublease has scheduled increases in rent payments over the period of the lease and the Company has recorded rent on a straight-line basis over the lease term resulting in deferred rent of approximately $19,000 and $32,000 at December 31, 2013 and 2012, respectively.

On November 4, 2011, the Company entered into a lease agreement with the Massachusetts Institute of Technology, to lease an additional 11,500 square feet of office space located at 12 Emily Street in Cambridge, MA. The lease commenced on December 15, 2011 and expired on February 28, 2014. Subject to the terms of the lease, the Company could have extended the term until May 31, 2015 but did not elect to do so. In conjunction with the lease, the Company entered into a standby letter of credit in the amount of $46,000 which will expire on April 29, 2013, subject to an automatic extension period of one year related to the term of the sublease. The letter of credit has been collateralized by a money market account held by the bank which issued the letter of credit. The Company has classified the money market account within restricted cash on its balance sheet at December 31, 2013 and 2012. As part of this lease, the Company obtained a tenant improvement allowance in the amount of $115,000 to be used for costs incurred by the tenant for the tenant s work. The Company used all of this allowance as of December 31, 2012. The Company also received six free weeks of rent under this arrangement and has recorded rent on a straight-line basis over the lease term, resulting in deferred rent of approximately $13,000 and $82,000 at December 31, 2013 and 2012, respectively.

On May 9, 2012, the Company entered into a lease agreement with BMR-650 E KENDALL B LLC ( BMR ), under which the Company has agreed to lease 126,065 square feet of space located at 650 East Kendall Street, Cambridge, Massachusetts to be used for office, research and laboratory space. The initial term of the lease agreement is approximately twelve years and seven months (the initial term ), and the Company has the right to extend the initial term for two additional terms of five years each. The Company s occupancy of the space will occur in two phases. The Company began the phase one occupancy on January 4, 2013 when the

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Company began to move some employees to occupy 26,734 square feet of office space (the phase 1 space ). The Company expects the second phase to consist of the balance of the Company s employees moving into the remaining space (the phase 2 space ) and is expected to occur during the second half of 2014. Rent payments with respect the phase 1 space commenced on January 1, 2013, and rent payments for the phase 2 space commenced on November 1, 2013 for the phase 2 space. The initial base rent expense for both the phase 1 space and the phase 2 space is $54.50 per rentable square foot per year, with 3% increases on each anniversary of the phase 1 space rent commencement date. In addition to the base rent, the Company is also responsible for its share of operating expenses and real estate taxes. In accordance with the terms of the lease agreement, the Company maintains a letter of credit securing its obligations under the lease agreement of approximately $2.9 million. The Company has determined that the lease should be classified as an operating lease. As the Company gained access to both the phase 1 space and the phase 2 space beginning in May 2012, the Company recognized rent expense of approximately $6.7 million and $4.9 million related to the lease during the years ended December 31, 2013 and 2012, respectively.

In order to make the space usable for the Company s operations, substantial improvements have been and will continue to be made to the space. These improvements are being planned, managed and carried out by the Company and the improvements are being tailored to the Company s needs. BMR has agreed to reimburse the Company for up to approximately $20.0 million of the improvements, and the Company bears all risks associated with any cost overruns that may be incurred. As such, the Company determined it was the owner of the improvements and, as such, the Company accounts for tenant improvement reimbursements from BMR as a lease incentive. The Company records a deferred lease incentive (included as a component of the deferred rent balance in the accompanying consolidated balance sheets) as improvements are made to the facility, and this deferred lease incentive will be amortized as an offset to rent expense over the term of the lease. Rent expense, inclusive of the escalating rent payments, is being recognized on a straight-line basis over the initial term of the lease agreement, as well as the tenant improvement allowance, resulting in deferred rent of approximately $20.0 million and $11.0 million at December 31, 2013 and 2012, respectively. The Company is amortizing all improvements over the assets useful lives or the lease term, whichever is shorter. Amortization of leasehold improvements is included as a component of depreciation expense.

Future annual minimum lease payments under all noncancelable operating leases at December 31, 2013 are as follows (amounts in thousands):

| **Years Ending December 31:** | |
|---|---|
| 2014 | 8,077 |
| 2015 | 7,530 |
| 2016 | 7,508 |
| 2017 | 7,733 |
| 2018 and thereafter | 61,030 |
| | $ 91,878 |

*Employment Agreements*

Certain key executives are covered by severance and change in control agreements. Under these agreements, if the executive s employment is terminated without cause or if the executive terminates his employment for good reason, such executive will be entitled to receive severance equal to his base salary, benefits and prorated bonuses for a period of time equal to either 12 months or 18 months, depending on the terms of such executive s individual agreement. In addition, in December 2007, the Company approved a key employee change in control severance benefits plan, which was amended in November 2009, and which provides for severance and other benefits under certain qualifying termination events upon a change in control for a period of time ranging from 6 months to 18 months, depending upon the position of the key employee.

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**9. Income Taxes**

For the years ended December 31, 2013 and 2012, the Company did not have any federal, state, or foreign income tax expense as it generated taxable losses in all filing jurisdictions. For the year ended December 31, 2011, the Company was able to utilize net operating loss carryforwards (NOLs) to fully offset taxable income in all filing jurisdictions.

A reconciliation of the expected income tax benefit computed using the federal statutory income tax rate to the Company s effective income tax rate is as follows for the years ended December 31, 2013, 2012 and 2011:

| | December 31, 2013 | December 31, 2012 | December 31, 2011 |
|---|---|---|---|
| Income tax computed at federal statutory tax rate | 34.0% | 34.0% | 34.0% |
| State taxes, net of federal benefit | 5.1% | 5.1% | 5.3% |
| Research and development credits | 2.0% | 0.1% | (5.1)% |
| Permanent differences | (0.9)% | (1.2)% | 2.8% |
| Foreign rate differential | (0.2)% | (0.4)% | 0.0% |
| Other | (0.5)% | (0.2)% | 0.3% |
| Change in valuation allowance | (39.5)% | (37.4)% | (37.3)% |
| Total | 0.0% | 0.0% | 0.0% |

Prior to 2011, the Company had incurred net operating losses from inception. At December 31, 2013, the Company had domestic federal, state, and UK net operating loss carryforwards of approximately $348.8 million, $259.9 million, and $6.9 million respectively, available to reduce future taxable income, which expire at various dates. The federal net operating loss carryforwards expire beginning in 2022 through 2033 and the state loss carryforwards begin to expire in 2014 and continue through 2033. The Company also had federal and state research and development tax credit carryforwards of approximately $8.7 million and $4.0 million, respectively, available to reduce future tax liabilities and which expire at various dates. The federal credits expire beginning in 2022 through 2033 and the state credits begin to expire in 2019. The net operating loss and research and development carryforwards are subject to review and possible adjustment by the Internal Revenue Service and may be limited in the event of certain changes in the ownership interest of significant stockholders.

The Company s net deferred tax assets as of December 31, 2013 and 2012 are as follows:

| | 2013 | 2012 |
|---|---|---|
| | (in thousands) | |
| NOL carryforwards | $ 134,023 | $ 99,001 |
| Research and development credits | 11,357 | 7,960 |
| Deferred revenue | 7,224 | 7,732 |
| Other temporary differences | 15,158 | 10,776 |
| Valuation allowance | (167,762) | (125,469) |
| | $ | $ |

A full valuation allowance has been recorded in the accompanying consolidated financial statements to offset these deferred tax assets because the future realizability of such assets is uncertain. This determination is based primarily on the Company s historical losses. Accordingly, future favorable adjustments to the valuation allowance may be required, if and when circumstances change. The valuation allowance increased by $42.3 million during the year ended December 31, 2013, primarily due to the generation of net operating loss carryforwards.

As of December 31, 2013, the Company had federal and state net operating losses of approximately $4.1 million related to excess tax deductions that have been excluded from the above table. The benefit of these net operating losses will be recognized as an increase in additional paid in capital when it results in a reduction in taxable income.

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Uncertain tax positions are recognized if the position is more-likely-than-not to be sustained upon examination by a tax authority. Unrecognized tax benefits represent tax positions for which reserves have been established. The Company has recorded a reserve for $1.2 million of unrecognized tax benefits. A full valuation allowance has been provided against the Company s deferred tax assets, so that the effect of the unrecognized tax benefits is to reduce the gross amount of the deferred tax asset and the corresponding valuation allowance. Since the Company has incurred net operating losses since inception, it has never been subject to a revenue agent review. As a result, all periods since inception remain subject to examination by U.S. federal and Massachusetts tax jurisdictions.

The Company may from time to time be assessed interest or penalties by major tax jurisdictions. The Company recognizes interest and penalties related to uncertain tax positions in income tax expense. No interest and penalties have been recognized by the Company to date.

The Company anticipates that the amount of unrecognized tax benefits recorded will not change in the next twelve months.

The following is a reconciliation of the Company s gross uncertain tax positions at December 31, 2013 and 2012:

| | Year ended December 31, 2013 | Year ended December 31, 2012 |
|---|---|---|
| | (in thousands) | |
| Amount established upon adoption | $ 1,200 | $ 1,200 |
| Additions for current year tax positions | | |
| Additions for prior year tax positions | | |
| Reductions of prior year tax positions | | |
| Balance as of end of year | $ 1,200 | $ 1,200 |

**10. Common Stock and Warrants**

As of December 31, 2013, the Company had 100,000,000 authorized shares of common stock, $0.001 par value, of which 51,809,028 shares were issued and outstanding.

During 2013, all of the Company s outstanding warrants expired unexercised and, as of December 31, 2013, the Company had no warrants outstanding.

*Private Placements*

On May 31, 2011, the Company entered into a definitive agreement with respect to the sale of 438,340 shares of its unregistered common stock at $17.11 per share to Johnson & Johnson Development Corporation in connection with the Centocor License Agreement. The Company completed the private placement on May 31, 2011, resulting in approximately $7.5 million in proceeds to the Company.

*Public Offering*

In June 2011, the Company raised $100.6 million in gross proceeds from the sale of 5,750,000 shares of its common stock in a public offering at $17.50 per share. In June 2011, the underwriters of the public offering exercised their option to purchase an additional 602,119 shares of common stock at $17.50 per share resulting in additional gross proceeds to the Company of approximately $10.5 million. The combined net offering proceeds after deducting approximately $7.0 million in offering related expenses and underwriters discounts and commissions were approximately $104.2 million.

In January 2013, the Company completed an underwritten public offering of its common stock. The total number of shares sold was 7,667,050, comprised of 6,667,000 shares of common stock initially offered and an additional 1,000,050 shares of common stock sold pursuant to the underwriters exercise of their over-allotment

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option, at the public offering price of $7.50 per share. Aggregate net proceeds to the Company were approximately $53.6 million, after deducting $3.9 million in offering related expenses and underwriting discounts and commissions.

**11. Stock-Based Compensation**

*Stock Incentive Plan Overview*

The Company maintains the 2010 Stock Incentive Plan (the Plan ) for employees, consultants, advisors, and directors. The Plan provides for the grant of equity awards such as stock options and restricted stock. The Plan has been amended at various times since its approval. The most recent amendment to the Plan, which was approved in March 2013 by the Company s board of directors, increased the number of shares of common stock reserved for issuance to 7,875,000 shares, plus the number of shares of common stock subject to awards granted under the Company s 2002 Incentive Plan which expire, terminate or are otherwise surrendered, cancelled, forfeited or repurchased by us, up to a maximum of 625,000 shares. This amendment also adopted a fungible share pool whereby any award that is a full-value award (i.e. any restricted stock award, restricted stock unit award, or other stock-based award with a per share price or per unit purchase price lower than 100% of fair market value on the date of the grant) is counted against the share limits under the Plan as 1.5 shares for each one share of common stock subject to such full-value award.

The Company has reserved 8,477,664 shares of common stock under the Plan, and at December 31, 2013, the Company has 5,362,977 shares available for future issuance under the Plan. Shares issued upon exercise of options are generally issued from new shares of the Company. The Plan provides that the exercise price of incentive stock options cannot be less than 100% of the fair market value of the common stock on the date of the award for participants who own less than 10% of the total combined voting power of stock of the Company and not less than 110% for participants who own more than 10% of the total combined voting power of the stock of the Company. Options and restricted stock granted under the Plan vest over periods as determined by the Board, which generally are equal to four years. Options generally expire ten years from the date of grant.

*Stock Incentive Plan Employee Stock Options*

The fair value of each stock option granted is estimated on the date of grant using the Black-Scholes option-pricing model using the assumptions noted in the following table:

| | Years Ended December 31, | | |
|---|---|---|---|
| | 2013 | 2012 | 2011 |
| Volatility | 64.22%-72.65% | 64.30%-66.05% | 64.37%-65.56% |
| Expected Term (in years) | 5.50-6.25 | 5.50-6.25 | 5.50-6.25 |
| Risk-Free Interest Rates | 1.01%-2.10% | 0.83%-1.33% | 1.09%-2.57% |
| Dividend Yield | | | |

The risk-free interest rate is determined based upon the United States Treasury s rates for U.S. Treasury zero-coupon bonds with maturities similar to those of the expected term of the options being valued. The Company does not expect to pay dividends in the foreseeable future.

The Company does not have sufficient history to support a calculation of volatility and expected term using only its historical data. As such, the Company has used a weighted-average volatility considering the Company s own volatility since March 2010, and the volatilities of several peer companies. For purposes of identifying similar entities, the Company considered characteristics such as industry, length of trading history, similar vesting terms and in-the-money option status. Due to lack of available option activity data, the Company elected to use the simplified method for plain vanilla options to estimate the expected term of the stock option grants. Under this approach, the weighted-average expected life is presumed to be the average of the vesting term and the contractual term of the option. Additionally, the Company is required to include an estimate of the value of the awards that will be forfeited in calculating compensation costs, which the Company estimates based upon

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actual historical forfeitures. The forfeiture estimates are recognized over the requisite service period of the awards on a straight-line basis. Based upon these assumptions, the weighted-average grant date fair value of stock options granted during the years ended December 31, 2013, 2012, and 2011 was $4.32, $7.40 and $9.55 per share, respectively.

As of December 31, 2013, there was $3.1 million of total unrecognized stock-based compensation expense related to stock options granted under the Company s 2002 Stock Incentive Plan and 2010 Stock Incentive Plan (collectively, the Plans ). The expense is expected to be recognized over a weighted-average period of 1.8 years. The intrinsic value of options exercised was $0.5 million, $1.9 million and $6.5 million for the years ended December 31, 2013, 2012 and 2011, respectively.

The following table summarizes the activity of the Plans for the year ended December 31, 2013:

| | Number of Options | Weighted-Average Exercise Price | Weighted-Average Remaining Contractual Life (in years) | Aggregate Intrinsic Value |
|---|---|---|---|---|
| Outstanding at December 31, 2012 | 4,638,388 | $ 9.86 | | |
| Granted | 2,715,840 | $ 4.95 | | |
| Exercised | (185,311) | $ 1.46 | | |
| Forfeited | (1,860,918) | $ 8.81 | | |
| Expired | (1,011,305) | $ 10.80 | | |
| Outstanding at December 31, 2013 | 4,296,694 | $ 7.36 | 5.82 | $ 130,676 |
| Exercisable at December 31, 2013 | 2,676,724 | $ 8.53 | 4.14 | $ 130,676 |
| Vested or expected to vest at December 31, 2013 | 3,598,721 | $ 7.90 | 5.26 | $ 130,676 |

*Stock Incentive Plan Nonemployee Stock Options*

During 2008, the Company granted nonqualified options to purchase 50,625 shares of common stock to nonemployee consultants, with an average exercise price of $6.84 per share. There were no stock options granted to nonemployee consultants during 2013, 2012 or 2011. The Company valued these options using the Black-Scholes option-pricing model and recognized expense related to these awards using the graded-vesting method. The unvested options held by consultants have been revalued using the Company s estimate of fair value at each reporting period over the vesting period. The expense associated with these grants has been fully expensed as of December 31, 2012.

*Stock Incentive Plan Restricted Stock*

The Company periodically grants awards of restricted stock to employees. These awards typically vest upon completion of the requisite service period or upon achievement of specified performance targets.

The following table summarizes the restricted stock activity for the year ended December 31, 2013:

| | Number of Shares | Weighted-Average Price |
|---|---|---|
| Unvested at December 31, 2012 | 245,020 | $ 13.31 |
| Granted | 689,678 | 5.23 |
| Cancelled | (660,698) | 8.79 |
| Expired | | |
| Vested/Released | (32,500) | 14.16 |

| | | |
|---|---|---|
| Unvested at December 31, 2013 | 241,500 | $ 2.50 |

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The fair value of restricted stock awards that vested was $0.5 million for the years ended December 31, 2013 and 2012. No shares vested during the year ended December 31, 2011. The Company reversed $2.0 million of previously recognized stock-based compensation expense during the year ended December 31, 2013 associated with performance-based restricted stock awards that are no longer probable of vesting. As of December 31, 2013, there was $0.1 million of total unrecognized stock-based compensation expense related to restricted stock awards granted under the Plan. The expense is expected to be recognized over a weighted-average period of 0.8 years if all performance targets are met.

*Employee Stock Purchase Plan*

In February 2010, the Board of Directors adopted the 2010 Employee Stock Purchase Plan (the ESPP ) pursuant to which the Company may sell up to an aggregate of 250,000 shares of Common Stock. The ESPP was approved by the Company s stockholders in February 2010. The plan was amended in March 2013 to increase the total number of shares available for the Company to sell to 764,000. The ESPP allows eligible employees to purchase common stock at a price per share equal to 85% of the lower of the fair market value of the common stock at the beginning or end of each six month period during the term of the ESPP. The first offering period began on July 1, 2010.

Pursuant to the ESPP, the Company sold a total of 109,610 shares of common stock during the year ended December 31, 2013 at purchase prices of $2.13 and $1.56, respectively, which represent 85% of the closing price of the Company s common stock on June 28, 2013 and December 31, 2013, respectively. For the year ended December 31, 2012, the Company sold a total of 94,592 shares of common stock at purchase prices of $10.34 and $6.84, respectively, which represent 85% of the closing price of the Company s common stock on June 29, 2012 and December 31, 2012, respectively. For the year ended December 31, 2011, the Company sold a total of 57,187 shares of common stock at purchase prices of $12.64 and $14.62, respectively, which represent 85% of the closing price of the Company s common stock on January 3, 2011 and December 30, 2011, respectively. The total stock-based compensation expense recorded as a result of the ESPP was approximately $0.2 million, $0.3 million and $0.3 million during the years ended December 31, 2013, 2012 and 2011, respectively.

**12. Employee Benefit Plan**

In 2002, the Company established the AVEO Pharmaceuticals, Inc. 401(k) Plan (the 401(k) Plan ) for its employees, which is designed to be qualified under Section 401(k) of the Internal Revenue Code. Eligible employees are permitted to contribute to the 401(k) Plan within statutory and 401(k) Plan limits. The Company makes matching contributions of 50% of the first 5% of employee contributions. The Company made matching contributions of $0.4 million, $0.6 million, and $0.4 million for the years ended December 31, 2013, 2012 and 2011, respectively.

**13. Strategic Restructuring**

In October 2012, the Company announced a strategic restructuring designed to optimize resources and reduce expenses. The Company s restructuring and projected cost savings are being achieved through a combination of reduced spending on early stage research programs and a reduction in force of 48 positions, as well as the elimination of 30 previously open positions.

In connection with the receipt of a Complete Response Letter from the FDA informing the Company that the FDA would not approve the Company s NDA for tivozanib for the treatment of patients with advanced RCC, the Company announced a further strategic restructuring in June 2013 to refocus the Company s efforts on the then on-going clinical development of tivozanib in colorectal and breast cancer and on the advancement of key pipeline and preclinical assets. As part of this restructuring, the Company decided not to pursue the development of tivozanib in RCC. This restructuring was completed as of December 31, 2013 and resulted in costs totaling $8.0 million. The total restructuring expense of $8.0 million for the year ended December 31, 2013 includes impairment charges of $0.3 million.

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The following table summarizes the components of the Company s restructuring activity recorded in operating expenses and in accrued expenses in the accompanying consolidated balance sheet:

| | Restructuring amounts accrued at December 31, 2012 | Restructuring expense incurred during the year ended December 31, 2013 | Restructuring amounts paid during the year ended December 31, 2013 | Restructuring amounts accrued at December 31, 2013 |
|---|---|---|---|---|
| | | (in thousands) | | |
| Employee severance, benefits and related costs. | $ 1,653 | $ 7,674 | $ (8,740) | $ 587 |
| Contract termination costs | | 82 | (82) | |
| Total | 1,653 | 7,756 | (8,822) | 587 |

| | Restructuring expense incurred through December 31, 2012 | Restructuring amounts paid through December 31, 2012 | Restructuring amounts accrued at December 31, 2012 |
|---|---|---|---|
| | | (in thousands) | |
| Employee severance, benefits and related costs | $ 2,633 | $ (980) | $ 1,653 |

The accrued restructuring amounts are current and reflected within accrued expenses on the consolidated balance sheet.

**14. Quarterly Results (Unaudited)**

| | Three Months Ended | | | |
|---|---|---|---|---|
| | March 31, 2013 | June 30, 2013 | September 30, 2013 | December 31, 2013 |
| | (in thousands, except per share data) (unaudited) | | | |
| Collaboration revenue | $ 323 | $ 324 | $ 323 | $ 323 |
| Restructuring | 67 | 7,869 | 77 | 4 |
| Operating expenses | 33,478 | 31,396 | 23,931 | 16,392 |
| Loss from operations | (33,155) | (31,072) | (23,608) | (16,069) |
| Other expense, net | (930) | (841) | (698) | (656) |
| Net loss | $ (34,085) | $ (31,913) | $ (24,306) | $ (16,725) |
| Net loss per share basic and diluted | $ (0.69) | $ (0.62) | $ (0.47) | $ (0.32) |

| | Three Months Ended | | | |
|---|---|---|---|---|
| | March 31, 2012 | June 30, 2012 | September 30, 2012 | December 31, 2012 |
| | (in thousands, except per share data) (unaudited) | | | |
| Collaboration revenue | $ 860 | $ 1,877 | $ 1,018 | $ 15,531 |
| Restructuring | | | | 2,633 |
| Operating expenses | 33,759 | 30,636 | 30,399 | 36,129 |
| Loss from operations | (32,899) | (28,759) | (29,381) | (20,598) |
| Other expense, net | (347) | (787) | (741) | (882) |

| | | | | |
|---|---|---|---|---|
| Net loss | $ (33,246) | $ (29,546) | $ (30,122) | $ (21,480) |
| Net loss per share basic and diluted | $ (0.77) | $ (0.68) | $ (0.69) | $ (0.49) |

**15. Legal Actions**

Two class action lawsuits have been filed against the Company and certain of the Company s present and former officers and members of its board of directors, including Tuan Ha-Ngoc, David N. Johnston, William Slichenmyer and Ronald DePinho, in the United States District Court for the District of Massachusetts, one

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captioned Paul Sanders v. Aveo Pharmaceuticals, Inc., et al., No. 1:13-cv-11157-JLT, filed on May 9, 2013 and the other captioned Christine Krause v. AVEO Pharmaceuticals, Inc., et al., No. 1:13-cv-11320-JLT filed on May 31, 2013. On December 4, 2013, the District Court consolidated the complaints as In re AVEO Pharmaceuticals, Inc. Securities Litigation, No. 1:13-cv-11157-DJC, and an amended complaint was filed on February 3, 2014. The amended complaint purports to be brought on behalf of shareholders who purchased the Company s common stock between January 3, 2012 and May 1, 2013. The amended complaint generally alleges that the Company and certain of the Company s present and former officers and directors violated Sections 10(b) and/or 20(a) of the Securities Exchange Act of 1934 and Rule 10b-5 promulgated thereunder by making allegedly false and/or misleading statements concerning the phase 3 trial design and results for the Company s TIVO-1 study in an effort to lead investors to believe that the drug would receive approval from the FDA. The amended complaint seeks unspecified damages, interest, attorneys fees, and other costs. The Company denies any allegations of wrongdoing and intends to vigorously defend against the lawsuit. However, there is no assurance that the Company will be successful in defense or that insurance will be available or adequate to fund any settlement or judgment or the litigation costs of the action. Moreover, the Company is unable to predict the outcome or reasonably estimate a range of possible loss at this time.

On July 3, 2013, the Company received a subpoena from the SEC requesting documents and information concerning tivozanib, including related communications with the FDA, investors and others. The Company is fully cooperating with the SEC regarding this fact-finding inquiry. The SEC has informed the Company that this inquiry should not be construed as an indication that any violations of law have occurred or that the SEC has any negative opinion of any person, entity or security.

Further discussion of additional legal matters that arose subsequent to the year ending December 31, 2013 is included in Footnote 16.

**16. Subsequent Events**

In January 2014, the Company and Astellas jointly announced the decision to discontinue the Phase 2 breast cancer clinical study in patients with locally recurrent or metastatic triple negative breast cancer due to insufficient enrollment. In February 2014, AVEO and Astellas discontinued an ongoing Phase 2 study in patients with colorectal cancer. On February 12, 2014, Astellas elected to terminate the collaboration for tivozanib as a result of the limited scope of development for tivozanib moving forward. This termination will be effective August 2014, at which time the tivozanib rights will be returned to the Company. In accordance with the collaboration and license agreement, committed development costs, including the costs of winding down discontinued tivozanib clinical development programs, will be shared equally.

The Company is aware of a potential plaintiff, a purported purchaser of the Company s stock, seeking to file a derivative complaint allegedly on behalf of the Company in the United States District Court for the District of Massachusetts which would name the Company, as a nominal defendant and also would name as defendants present and former members of the Company s board of directors, including Tuan Ha-Ngoc, Henri A. Termeer, Kenneth M. Bate, Anthony B. Evnin, Robert Epstein, Raju Kucherlapati, Robert C. Young, and Kenneth E. Weg. The complaint would allege breach of fiduciary duty and abuse of control between January 2012 and May 2013 with respect to allegedly misleading statements and omissions regarding tivozanib. The complaint would seek, among other relief, unspecified damages, costs and expenses, including attorneys fees, an order requiring the Company to implement certain corporate governance reforms, restitution from the defendants and such other relief as the court might find just and proper. The Company denies any allegations of wrongdoing and intends to vigorously defend this lawsuit, if filed. However, there is no assurance that the Company will be successful in its defense or that insurance will be available or adequate to fund any settlement or judgment or the litigation costs of this action. Moreover, the Company is unable to predict the outcome or reasonably estimate a range of possible loss at this time.

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**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**

Our management, with the participation of our Chief Executive Officer and Acting Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2013. In designing and evaluating our disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and our management necessarily applied its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on this evaluation, our Chief Executive Officer and Acting Chief Financial Officer concluded that as of December 31, 2013, our disclosure controls and procedures were (1) designed to ensure that material information relating to us is made known to our management including our principal executive officer and principal financial officer by others, particularly during the period in which this report was prepared and (2) effective, in that they provide reasonable assurance that information required to be disclosed by us in the reports the Company files or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC s rules and forms.

Management s report on the Company s internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) appears below.

**Internal Control Over Financial Reporting**

***(a) Management s Report on Internal Control Over Financial Reporting***

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rules 13a-15(f) and 15d-15(f) promulgated under the Exchange Act as a process designed by, or under the supervision of, the company s principal executive and principal financial officers and effected by the company s board of directors, management and other personnel, 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 and includes those policies and procedures that:

- Pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the company;
- 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
- 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. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. 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.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2013. In making this assessment, management used the criteria set forth by the Committee of

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Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control  Integrated Framework* (1992 framework). Based on its assessment, management believes that, as of December 31, 2013, our internal control over financial reporting is effective based on those criteria.

Our independent registered public accounting firm has issued an attestation report of our internal control over financial reporting. This report appears below.

***(b) Report of Independent Registered Public Accounting Firm on Internal Control over Financial Reporting***

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Board of Directors and Stockholders of

AVEO Pharmaceuticals, Inc.

We have audited AVEO Pharmaceuticals, Inc. s internal control over financial reporting as of December 31, 2013, based on criteria established in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (1992 framework) (the COSO criteria). AVEO Pharmaceuticals, Inc. s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying management s report on internal control over financial reporting. Our responsibility is to express an opinion on the company s internal control over financial reporting based on our audit.

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

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

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

In our opinion, AVEO Pharmaceuticals, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2013, 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 as of December 31, 2013 and 2012, and the related consolidated statements of operations, comprehensive (loss) income, stockholders equity, and cash flows for each of the three years in the period ended December 31, 2013 of AVEO Pharmaceuticals, Inc. and our report dated March 13, 2014 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Boston, Massachusetts

March 13, 2014

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**Changes in Internal Control Over Financial Reporting**

There were no changes in our internal control over financial reporting that occurred during the quarter ended December 31, 2013 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

**ITEM 9B. Other Information**

None.

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## PART III

**ITEM 10. Directors, Executive Officers and Corporate Governance**

The information required by this Item 10 will be contained in the sections entitled Election of Directors, Corporate Governance and Section 16(a) Beneficial Ownership Reporting Compliance appearing in the definitive proxy statement we will file in connection with our 2014 Annual Meeting of Stockholders and is incorporated by reference herein. The information required by this item relating to executive officers may be found in Part I, Item 1 of this report under the heading Business Executive Officers and is incorporated herein by reference.

**ITEM 11. Executive Compensation**

The information required by this Item 11 will be contained in the sections entitled Executive and Director Compensation, Executive and Director Compensation Compensation Committee Interlocks and Insider Participation and Executive and Director Compensation Compensation Committee Report appearing in the definitive proxy statement we will file in connection with our 2014 Annual Meeting of Stockholders and is incorporated by reference herein.

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

The information required by this Item 12 will be contained in the sections entitled Ownership of Our Common Stock and Executive and Director Compensation Equity Compensation Plan Information appearing in the definitive proxy statement we will file in connection with our 2014 Annual Meeting of Stockholders and is incorporated by reference herein.

**ITEM 13. Certain Relationships and Related Person Transactions, and Director Independence**

The information required by this Item 13 will be contained in the sections entitled Certain Relationships and Related Person Transactions appearing in the definitive proxy statement we will file in connection with our 2014 Annual Meeting of Stockholders and is incorporated by reference herein.

**ITEM 14. Principal Accounting Fees and Services**

The information required by this Item 14 will be contained in the section entitled Corporate Governance Principal Accountant Fees and Services appearing in the definitive proxy statement we will file in connection with our 2014 Annual Meeting of Stockholders and is incorporated by reference herein.

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**PART IV**

**ITEM 15. Exhibits and Financial Statement Schedules**

(a) Documents filed as part of Form 10-K.

(1) Financial Statements

Report of Independent Registered Public Accounting Firm

Consolidated Balance Sheets

Consolidated Statements of Operations

Consolidated Statements of Comprehensive (Loss) Income

Consolidated Statements of Stockholders Equity

Consolidated Statements of Cash Flows

Notes to Consolidated Financial Statements

(2) Schedules

Schedules have been omitted as all required information has been disclosed in the financial statements and related footnotes.

(3) Exhibits

The Exhibits listed in the Exhibit Index are filed as a part of this Form 10-K.

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**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.

**AVEO PHARMACEUTICALS, INC.**

Date: March 13, 2014

By: /s/ TUAN HA-NGOC
**Tuan Ha-Ngoc**

***[President & Chief Executive Officer***

***(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.

| Signature | Title | Date |
|---|---|---|
| /s/ TUAN HA-NGOC<br>**Tuan Ha-Ngoc** | President, Chief Executive Officer, Director and Acting Chief Financial Officer<br>*Principal Executive Officer and Principal Financial and Accounting Officer* | March 13, 2014 |
| /s/ KENNETH M. BATE<br>**Kenneth M. Bate** | Director | March 13, 2014 |
| /s/ ROBERT EPSTEIN<br>**Robert Epstein** | Director | March 13, 2014 |
| /s/ ANTHONY B. EVNIN<br>**Anthony B. Evnin** | Director | March 13, 2014 |
| /s/ RAJU KUCHERLAPATI<br>**Raju Kucherlapati** | Director | March 13, 2014 |
| /s/ HENRI TERMEER<br>**Henri Termeer** | Director | March 13, 2014 |
| /s/ ROBERT C. YOUNG<br>**Robert C. Young** | Director | March 13, 2014 |

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**Exhibit Index**

| Exhibit Number | Description of Exhibit | Incorporated by Reference | | | | Filed Herewith |
|---|---|---|---|---|---|---|
| | | Form | File Number | Date of Filing | Exhibit Number | |
| | ***Articles of Incorporation and Bylaws*** | | | | | |
| 3.1 | Restated Certificate of Incorporation of the Registrant | 8-K | 001-34655 | 03/18/2010 | 3.1 | |
| 3.2 | Second Amended and Restated Bylaws of the Registrant | S-1/A | 333-163778 | 02/08/2010 | 3.5 | |
| | ***Instruments Defining the Rights of Security Holders, Including Indentures*** | | | | | |
| 4.1 | Specimen Stock Certificate evidencing the shares of common stock | S-1/A | 333-163778 | 03/09/2010 | 4.1 | |
| | ***Material Contracts Management Contracts and Compensatory Plans*** | | | | | |
| 10.1 | 2002 Stock Incentive Plan, as amended | S-1/A | 333-163778 | 02/23/2010 | 10.1 | |
| 10.2 | Form of Incentive Stock Option Agreement under 2002 Stock Incentive Plan | S-1 | 333-163778 | 12/16/2009 | 10.2 | |
| 10.3 | Form of Nonstatutory Stock Option Agreement under 2002 Stock Incentive Plan | S-1 | 333-163778 | 12/16/2009 | 10.3 | |
| 10.4 | Form of Restricted Stock Agreement under 2002 Stock Incentive Plan | S-1 | 333-163778 | 12/16/2009 | 10.4 | |
| 10.5 | Amended and Restated 2010 Stock Incentive Plan | 8-K | 001-34655 | 06/04/2013 | 99.1 | |
| 10.6 | Form of Incentive Stock Option Agreement under 2010 Stock Incentive Plan | S-1/A | 333-163778 | 02/08/2010 | 10.6 | |
| 10.7 | Form of Nonqualified Stock Option Agreement under 2010 Stock Incentive Plan | S-1/A | 333-163778 | 02/08/2010 | 10.7 | |
| 10.8 | Form of Restricted Stock Agreement under 2010 Stock Incentive Plan | 10-K | 001-34655 | 03/30/2012 | 10.8 | |
| 10.9 | Key Employee Change in Control Severance Benefits Plan | S-1 | 333-163778 | 12/16/2009 | 10.8 | |
| 10.10 | Amended and Restated Employment Agreement, dated as of December 19, 2008, by and between the Registrant and Tuan Ha-Ngoc | S-1 | 333-163778 | 12/16/2009 | 10.9 | |
| 10.11 | Severance and Change in Control Agreement, dated as of December 11, 2009, by and between the Registrant and Tuan Ha-Ngoc | S-1 | 333-163778 | 12/16/2009 | 10.10 | |
| 10.12 | Severance and Change in Control Agreement, dated as of December 11, 2009, by and between the Registrant and Elan Z. Ezickson | S-1 | 333-163778 | 12/16/2009 | 10.11 | |
| 10.13 | Severance and Change in Control Agreement, dated as of December 11, 2009, by and between the Registrant and Jeno Gyuris | S-1 | 333-163778 | 12/16/2009 | 10.12 | |
| 10.14 | Severance and Change in Control Agreement, dated as of December 11, 2009, by and between the Registrant and David B. Johnston | S-1 | 333-163778 | 12/16/2009 | 10.13 | |

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| Exhibit Number | Description of Exhibit | Incorporated by Reference | | | | Filed Herewith |
|---|---|---|---|---|---|---|
| | | Form | File Number | Date of Filing | Exhibit Number | |
| 10.15 | Severance and Change in Control Agreement, dated as of December 11, 2009, by and between the Registrant and William Slichenmyer | S-1 | 333-163778 | 12/16/2009 | 10.14 | |
| 10.16 | 2010 Employee Stock Purchase Plan, as amended | S-1/A | 333-163778 | 02/23/2010 | 10.17 | |
| 10.17 | Amendment No. 1 to 2010 Employee Stock Purchase Plan | 8-K | 001-34655 | 06/04/2013 | 99.2 | |
| 10.18 | Severance Agreement, dated September 13, 2010, by and between the Registrant and Michael Bailey | 10-Q | 001-34655 | 11/05/2010 | 10.1 | |
| 10.19 | Severance and Change in Control Agreement, dated as of January 24, 2013, by and between the Company and Joseph Vittiglio | 10-K | 001-34655 | 3/11/2013 | 10.18 | |
| 10.20 | Severance and Change in Control Agreement, dated as of January 24, 2013, by and between the Company and Mary Ellen Jones | 10-K | 001-34655 | 3/11/2013 | 10.19 | |
| 10.21 | Letter Agreement regarding Retention Bonus Award and Severance Agreement, dated February 3, 2014, by and between the Company and William Slichenmyer | | | | | X |
| 10.22 | Letter Agreement regarding Retention Bonus Award and Severance Agreement, dated February 3, 2014, by and between the Company and Michael Bailey | | | | | X |
| | ***Material Contracts Financing Agreements*** | | | | | |
| 10.23 | Loan and Security Agreement dated May 28, 2010 by and among the Company, Hercules Technology II, L.P. and Hercules Technology III, L.P. | 8-K | 001-34655 | 06/04/2010 | 10.1 | |
| 10.24 | Amendment No. 1 to Loan and Security Agreement, dated December 21, 2011, by and among the Company, Hercules Technology II, L.P. and Hercules Technology III, L.P. | 10-K | 001-34655 | 03/30/2012 | 10.25 | |
| 10.25 | Amendment No. 2 to Loan and Security Agreement, dated March 31, 2012, by and among the Company, Hercules Technology II, L.P. and Hercules Technology III, L.P. | 8-K | 001-34655 | 04/04/2012 | 10.1 | |
| | ***Material Contracts Leases*** | | | | | |
| 10.26 | Sublease, dated as of July 2004, by and between the Registrant and Millennium Pharmaceuticals, Inc. | S-1 | 333-163778 | 12/16/2009 | 10.19 | |
| 10.27 | Sublease, dated as of September 2, 2008, by and between the Registrant and Alkermes, Inc. | S-1 | 333-163778 | 12/16/2009 | 10.20 | |

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| Exhibit Number | Description of Exhibit | Incorporated by Reference | | | | Filed Herewith |
|---|---|---|---|---|---|---|
| | | Form | File Number | Date of Filing | Exhibit Number | |
| 10.28 | Sublease, dated February 28, 2011, by and between the Company and Acceleron Pharma, Inc. | 10-Q | 001-34655 | 05/12/2011 | 10.4 | |
| 10.29 | First Amendment to Sublease, dated September 1, 2011, by and between the Company and Acceleron Pharma, Inc. | 10-K | 001-34655 | 03/30/2012 | 10.29 | |
| 10.30 | Lease, dated May 9, 2012, by and between the Company and BMR-650 E. Kendall B LLC | 10-Q | 001-34655 | 05/09/2012 | 10.3 | |
| | ***Material Contracts License and Strategic Partnership Agreements*** | | | | | |
| 10.31 | License Agreement, dated as of December 21, 2006, by and between the Registrant and Kirin Brewery Co. Ltd. | S-1 | 333-163778 | 12/16/2009 | 10.22 | |
| 10.32 | Option and License Agreement, dated as of March 18, 2009, by and between the Registrant and Biogen Idec International GmbH | S-1 | 333-163778 | 12/16/2009 | 10.26 | |
| 10.33 | Amended and Restated Collaboration and License Agreement, dated as of July 16, 2009, by and between the Registrant and OSI Pharmaceuticals, Inc., as amended by the First Amendment, dated as of February 23, 2010 | S-1/A | 001-34655 | 03/09/2010 | 10.28 | |
| | | 10-Q | 001-34655 | 08/06/2010 | 10.1 | |
| 10.34 | Collaboration and License Agreement, dated February 16, 2011, by and among the Registrant, AVEO Pharma Limited, Astellas Pharma Inc., Astellas US LLC and Astellas Pharma Europe Limited | 10-K | 001-34655 | 03/11/2011 | 10.30 | |
| 10.35 | License Agreement, dated as of July 2, 2012, by and between the Registrant and St. Vincent s Hospital Sydney Limited | | | | | X |
| | ***Additional Exhibits*** | | | | | |
| 21.1 | Subsidiaries of the Registrant | | | | | X |
| 23.1 | Consent of Ernst & Young LLP | | | | | X |
| 31.1 | Certification of principal executive officer pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934, as amended. | | | | | X |
| 31.2 | Certification of principal financial officer pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934, as amended. | | | | | X |
| 32.1 | Certification of principal executive officer pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. | | | | | X |

Table of Contents

| Exhibit Number | Description of Exhibit | Incorporated by Reference | | | | Filed Herewith |
|---|---|---|---|---|---|---|
| | | Form | File Number | Date of Filing | Exhibit Number | |
| 32.2 | Certification of principal financial officer pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. | | | | | X |
| 101.INS | XBRL Instance Document. | | | | | X |
| 101.SCH | XBRL Taxonomy Extension Schema Document. | | | | | X |
| 101.CAL | XBRL Taxonomy Calculation Linkbase Document. | | | | | X |
| 101.DEF | XBRL Taxonomy Extension Definition Linkbase Document. | | | | | X |
| 101.LAB | XBRL Taxonomy Label Linkbase Document. | | | | | X |
| 101.PRE | XBRL Taxonomy Presentation Linkbase Document. | | | | | X |

Confidential treatment has been requested as to certain portions, which portions have been omitted and separately filed with the Securities and Exchange Commission.