Anthera Pharmaceuticals Inc
Form 10-K
March 07, 2011

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

FORM 10-K

(Mark One)

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

OR

o **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: 001-34637
ANTHERA PHARMACEUTICALS, INC.
(Exact Name of Registrant as Specified in Its Charter)

Delaware	**20-1852016**
(State or Other Jurisdiction of Incorporation or Organization)	*(I.R.S. Employer Identification No.)*
25801 Industrial Boulevard, Suite B Hayward, California	**94545**
(Address of Principal Executive Offices)	*(Zip Code)*

(510) 856-5600
(Registrant s telephone number, including area code)

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

Title of Each Class	**Name of Each Exchange on Which Registered**
Common Stock, par value $0.001 per share	**The NASDAQ Stock Market LLC**

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

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

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

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 þ No o

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of 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. þ

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

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

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

The aggregate market value of the registrant s common stock held by non-affiliates as of June 30, 2010 was approximately $58,846,545, based upon the closing sales price of the registrant s common stock as reported on the NASDAQ Global Market. Shares of common stock held by each executive officer and director and by each person who owns 10 percent or more of the outstanding common stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for any other purpose.

As of February 28, 2011, the number of outstanding shares of the registrant s common stock, par value $0.001 per share, was 32,906,412.

ANTHERA PHARMACEUTICALS, INC.

FORM 10-K FOR THE FISCAL YEAR ENDED DECEMBER 31, 2010

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K, including the section entitled Management s Discussion and Analysis of Financial Condition and Results of Operations, contains forward-looking statements regarding future events and our future results that are subject to the safe harbors created under the Securities Act of 1933, as amended (the Securities Act), and the Securities Exchange Act of 1934, as amended (the Exchange Act). Forward-looking statements relate to future events or our future financial performance. We generally identify forward-looking statements by terminology such as may, will, would, should, expects, plans, anticipates, could, intends, target, projects, contemp predicts, assume, intend, potential, continue or other similar words or the negative of these terms. These stateme are only predictions. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our business, financial condition and results of operations. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties and other factors described in Risk Factors and elsewhere in this report. Accordingly, you should not place undue reliance upon these forward-looking statements. We cannot assure you that the events and circumstances reflected in the forward-looking statements will be achieved or occur, the timing of events and circumstances and actual results could differ materially from those projected in the forward looking statements. Forward-looking statements contained in this report include, but are not limited to, statements about:

- *the progress of, timing of and amount of expenses associated with our research, development and commercialization activities;*
- *the timing, conduct and success of our clinical studies for our product candidates;*
- *our ability to obtain U.S. and foreign regulatory approval for our product candidates and the ability of our product candidates to meet existing or future regulatory standards;*
- *our expectations regarding federal, state and foreign regulatory requirements;*
- *the therapeutic benefits and effectiveness of our product candidates;*
- *the accuracy of our estimates of the size and characteristics of the markets that may be addressed by our product candidates;*
- *our ability to manufacture sufficient amounts of our product candidates for clinical studies and products for commercialization activities;*
- *our intention to seek to establish strategic collaborations or partnerships for the development or sale of our product candidates;*
- *our expectations as to future financial performance, expense levels and liquidity sources;*
- *the timing of commercializing our product candidates;*
- *our ability to compete with other companies that are or may be developing or selling products that are competitive with our product candidates;*
- *anticipated trends and challenges in our potential markets;*
- *our ability to attract and retain key personnel; and*

other factors discussed elsewhere in this report.

The forward-looking statements made in this report relate only to events as of the date on which the statements are made. We have included important factors in the cautionary statements included in this report, particularly in the section entitled Risk Factors that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make. Except as required by law, we do not assume any intent to update any forward-looking statements after the date on which the statement is made, whether as a result of new information, future events or circumstances or otherwise.

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PART I

ITEM 1. BUSINESS

Unless the context otherwise requires, we use the terms Anthera Pharmaceuticals, Anthera, we, us, the Company our in this report to refer to Anthera Pharmaceuticals, Inc. and its sole subsidiary. We use various trademarks, service marks and trade names in our business, including without limitation Anthera Pharmaceuticals and Anthera. This report also contains trademarks, services marks and trade names of other businesses that are the property of their respective holders.

Overview

Anthera Pharmaceuticals, Inc. is a biopharmaceutical company focused on developing and commercializing products to treat serious diseases associated with inflammation, including cardiovascular and autoimmune diseases. We currently have one Phase 3 clinical program, varespladib, and two Phase 2 clinical programs, A-623 and A-001. Two of our product candidates, varespladib and A-001, are designed to inhibit a novel enzyme target known as secretory phospholipase A_2, or $sPLA_2$. Elevated levels of $sPLA_2$ have been implicated in a variety of acute inflammatory conditions, including acute coronary syndrome and acute chest syndrome associated with sickle cell disease, as well as in chronic diseases, including stable coronary artery disease, or CAD. In addition, A-623, a phase 2 product candidate, targets elevated levels of B-lymphocyte stimulator, or BLyS, also known as B-cell Activating Factor, or BAFF, which has been associated with a variety of B-cell mediated autoimmune diseases, including systemic lupus erythematosus, or lupus, lupus nephritis, or LN, rheumatoid arthritis, multiple sclerosis, Sjögren s Syndrome, Graves Disease and others.

We were incorporated in Delaware in 2004. Our corporate headquarters are located at 25801 Industrial Boulevard, Suite B, Hayward, California 94545 and our telephone number is (510) 856-5600.

Summary of Product Development Programs

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We have worldwide rights to develop and commercialize our products in all indications and markets, with the exception of Japan where Shionogi & Co., Ltd. retains commercial rights to our $sPLA_2$ product candidates. Our current development plans are focused on acute treatment and orphan indications that may provide an accelerated and cost-efficient path to regulatory approval and commercialization. We believe that certain of these markets can be commercialized through a limited specialty sales force. In addition, we believe that our product candidates can also address market opportunities in chronic indications and we may seek development and commercialization partners to address chronic, non-specialty and international markets.

Inflammation and Diseases

The inflammatory process is a powerful and essential early line of defense for protection against injury and to repair body tissue. As a result, it is tightly regulated by the body to ensure appropriate activation and prompt resolution. However, under certain circumstances, the normal process can malfunction, leading to acute or chronic inflammation or inappropriate activation directed against the body s own tissues. All of these circumstances can cause significant damage to cells and tissues, leading to a range of inflammatory disorders, such as cardiovascular and autoimmune diseases.

Our $sPLA_2$ Inhibition Portfolio

Building upon our knowledge of the regulation of inflammatory pathways and the growing body of evidence that links inflammation to multiple disease states, we believe that we have developed a leadership position in the field of $sPLA_2$ inhibition. Our $sPLA_2$ inhibitors have been studied in a number of inflammatory disorders in multiple therapeutic areas. The effect of our $sPLA_2$ inhibitors on $sPLA_2$ concentration and activity have been implicated in acute coronary syndrome and acute chest syndrome associated with sickle cell disease. We currently have the two most advanced $sPLA_2$ inhibitors in clinical development.

Our lead product candidate, varespladib (an oral prodrug of A-001), is a broad-spectrum inhibitor of $sPLA_2$ enzymes and is being evaluated in a Phase 3 clinical study for short-term (16-week) treatment of patients who have experienced an acute coronary syndrome. The American Heart Association defines acute coronary syndrome as any group of clinical symptoms related to acute myocardial ischemia, including unstable angina, or UA. Varespladib, when combined with Lipitor (atorvastatin), is one of only a few therapeutics in development with the potential to offer a unique and synergistic treatment approach targeting inflammation, elevated lipid levels and atherosclerosis as part of physician-directed standard of care. Through its novel mechanism of action, varespladib may have applications in a broad range of acute and chronic cardiovascular diseases. Based on the successful results of our completed Phase 2b clinical study, we initiated a Phase 3 clinical study, VISTA-16, in patients with acute coronary syndrome in June 2010.

Our second product candidate, varespladib sodium, A-001, is an intravenously administered inhibitor of $sPLA_2$,which we are planning to evaluate in a Phase 2 clinical study for the prevention of acute chest syndrome associated with sickle cell disease. Acute chest syndrome is a form of inflammation-induced lung failure and is the most common cause of death in patients with sickle cell disease. Given that there are currently no approved drugs for the prevention of acute chest syndrome associated with sickle cell disease, we have received orphan drug designation and fast track status from the FDA for A-001.

We also have a broad series of additional $sPLA_2$ inhibitors designed with distinct chemical scaffolds in preclinical development. These product candidates are intended to provide new $sPLA_2$ inhibitors for our existing target indications as well as new candidates for other therapeutic areas. Our lead candidate within the series, A-003, is chemically distinct from A-001 and varespladib and has shown increased potency against the target enzymes and higher drug exposure after dosing in preclinical studies. As a result, A-003 may confer beneficial pharmacodynamic

effects in patients and can be formulated for oral or intravenously administered use. We plan to file an investigational new drug application, or IND, for A-003 in the future and we may continue to assess additional new compounds.

We have explored the use of our varespladib and A-001 $sPLA_2$ inhibitors as both topical and inhalation therapies in animal models for the treatment of atopic dermatitis and asthma, respectively. Results from a standard mouse model of edema demonstrated that topically administered varespladib was equivalent to the marketed

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immunosuppressant Elidel in resolving inflammation. In a sheep model of allergen-induced asthma, inhaled A-001 demonstrated an improvement in lung function similar to inhaled steroids.

$sPLA_2$ Biology

$sPLA_2$ is a family of enzymes directly involved in the acute and chronic steps of an inflammatory response. $sPLA_2$ activity is highly elevated during the early stages of inflammation, and its acute effects serve to substantially amplify the inflammatory process. The $sPLA_2$ enzyme catalyzes the first step in the arachidonic acid pathway of inflammation, one of the main metabolic processes for the production of inflammatory mediators, which, when amplified, are responsible for causing damage to cells and tissue. Specifically, $sPLA_2$ breaks down phospholipids that result in the formation of fatty acids such as arachidonic acid. Arachidonic acid is subsequently metabolized to form several pro-inflammatory and thrombogenic molecules.

In cardiovascular diseases such as acute coronary syndrome, elevated levels of $sPLA_2$ mass and $sPLA_2$ activity have acute and chronic implications on disease progression and patient outcomes. In published studies and our own clinical studies, significant elevations in $sPLA_2$ activity and mass have been seen from 24 hours to two weeks following an acute coronary syndrome and can persist for up to an additional 12 weeks thereafter. Shortly after a heart attack, $sPLA_2$ is dramatically elevated, amplifying inflammation that is associated with more frequent and secondary cardiovascular events. This resulting elevated level of inflammation is problematic for acute coronary syndrome patients who are already at higher risk of complications during the weeks following their initial event. For example, increased inflammation can destabilize vulnerable vascular lesions or atherosclerotic plaque, destroy damaged but viable cardiac cells and adversely modify lipids, any of which may lead to the recurrence of a major adverse cardiovascular event, or MACE.

Historical and recent clinical results have demonstrated circulating levels of $sPLA_2$ are significantly correlated with a well-established inflammatory marker, C-reactive protein, or CRP. These and other clinical studies have also demonstrated that $sPLA_2$ independently predicts coronary events in patients that have recently experienced an acute coronary syndrome and patients with stable CAD independent of other standard risk factors. In a stable cardiovascular patient, $sPLA_2$ not only sustains chronic vascular inflammation as discussed earlier, but it also adversely remodels lipoproteins such as low-density lipoprotein cholesterol, or LDL-C. $sPLA_2$ interacts with LDL-C in a series of reactions that result in smaller, more pro-atherogenic and pro-inflammatory LDL-C particles. Moreover, these modified lipoproteins have a reduced affinity for LDL-C receptors, which are responsible for removal of cholesterol from the body. As a result, LDL-C remains in circulation longer and has a greater tendency to deposit in the artery wall. This increased LDL-C deposition and sustained chronic vascular inflammation may contribute to the development of atherosclerosis.

The family of $sPLA_2$ enzymes includes at least three forms that play a role in inflammation and the development of cardiovascular disease or lung injury. While $sPLA_2$enzymes are a member of the phospholipase family that includes a lipoprotein associated phospholipase A_2, or Lp-PLA_2, there are important distinctions. Although both are present in blood, Lp-PLA_2 is mostly bound to LDL-C and high-density lipoprotein, or HDL, while $sPLA_2$ enzymes are not. Based on our clinical studies, we believe that our $sPLA_2$ inhibitor, varespladib, can be distinguished from other PLA_2 enzyme inhibitors such as those targeted at inhibiting Lp-PLA_2 because varespladib treatment:

- is synergistic with HMG-CoA reductase inhibitors, or statins, including Lipitor (atorvastatin), in reducing LDL-C, total cholesterol and non-HDL cholesterol in patients with CAD;

- lowers circulating small, dense and pro-atherogenic, or plaque-building LDL-C particles, while Lp-PLA_2 inhibition has not demonstrated similar effects;

has been shown to lower CRP, a well-established marker of inflammation in a statistically significant manner; and

reduces plaque volume and aneurysms in standard rodent models of atherosclerosis and has demonstrated synergistic reductions of plaque volume in standard rodent models of atherosclerosis when used in combination with statins.

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In diseases such as acute chest syndrome, a very serious form of lung injury associated with sickle cell disease, $sPLA_2$ acts acutely on a number of substrates that amplify the inflammatory disease process. Sickle cell disease is a genetic disorder which leads to the structural alteration, or sickling, of otherwise healthy red blood cells. Patients with sickle cell disease experience periods of intense pain known as vaso-occlusive crisis, or VOC, as structurally altered red blood cells bind together and occlude small blood vessels that supply blood and nutrients to vital tissue and bone. $sPLA_2$ levels are dramatically elevated in sickle cell patients during an episode of VOC as well as within 24 to 48 hours of the onset of acute chest syndrome. During VOC, microscopic fat emboli, or droplets of fat from the bone marrow, are prevalent and can break free and become lodged in the lung. These emboli are substrates for $sPLA_2$ enzymes and provide fuel for an already established inflammatory response, increasing lung injury. In addition, $sPLA_2$ has been demonstrated to degrade human lung surfactant, a component necessary in maintaining appropriate lung function, which further complicates lung injury.

We believe that early intervention with a drug designed to inhibit $sPLA_2$ activity may offer a unique opportunity to reduce the complications associated with certain inflammatory diseases such as acute coronary syndrome in cardiovascular patients and acute chest syndrome in patients with sickle cell disease.

Our BAFF Antagonism Portfolio

BAFF has been associated with a wide range of B-cell mediated autoimmune diseases including lupus, LN, rheumatoid arthritis, multiple sclerosis, Sjögren s Syndrome, Graves Disease and others. The role of BAFF in lupus and rheumatoid arthritis has recently been validated in multiple clinical studies with other BAFF antagonists. We are advancing the development of our BAFF inhibitor molecule, A-623, a selective peptibody, to exploit its broad potential clinical utility in autoimmune diseases. A peptibody is a novel fusion protein that is distinct from an antibody. We have worldwide rights to A-623 in all potential indications. We have initiated PEARL-SC, the Phase 2b clinical study of A-623, for the treatment of Systemic Lupus Erythematosus (lupus). Lupus patients suffer from a chronic autoimmune disease, which often leads to severe skin rash, fatigue, joint pain, major organ complications and cardiovascular disease.

A-623 demonstrates anti-BAFF activity and has shown statistically significant reductions in B-cells in two Phase 1 clinical studies in patients with lupus. We believe A-623 may offer a number of potential differentiations over other BAFF antagonists, as well as other novel B-cell directed therapies including:

- convenient, at-home, patient-administered subcutaneous dosing with a range of dosing frequencies including monthly and weekly;
- the ability to inhibit the activity of both membrane-bound and soluble BAFF;
- selective modulation and reduction of relevant B-cell sub-types in lupus patients;
- a novel molecular structure, which may confer differentiating pharmacokinetic and pharmacodynamic characteristics, potentially providing efficacy and dosing benefits, as well as manufacturing benefits and lower cost of goods based on a bacterial fermentation manufacturing process; and
- multiple binding domains achieve highest reported affinity for inhibition of BAFF.

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Product Development Programs

We have focused our product development programs on anti-inflammatory therapeutics for cardiovascular diseases, lupus and other serious diseases for which we believe that current treatments are either inadequate or non-existent. Our current product development programs are listed in the table below.

Product Candidate	Development Phase	Worldwide Product Rights	Description	Next Milestone(s)
Lead Development Programs				
Varespladib with Lipitor (atorvastatin)	Phase 3	Anthera(1)	Orally administered $sPLA_2$ inhibitor Target indication for the prevention of secondary MACE following an acute coronary syndrome (16-week treatment)	Biomarker analysis on independent markers of cardiovascular risk Data Safety Monitoring Board, or DSMB, review of clinical data Interim efficacy review of MACE
A-623	Phase 2b	Anthera	Selective subcutaneous administered dual action peptibody antagonist of soluble and membrane bound BAFF cytokine Being developed for the treatment of B-cell mediated autoimmune diseases Target indication for lupus	Completion of technology transfer to contract manufacturer Establish comparability plan with U.S. FDA Initiation of Phase 3 manufacturing campaign
Additional Programs				
A-001-varespladib sodium	Phase 2	Anthera(1)	Intravenous $sPLA_2$ inhibitor with orphan drug and fast track status Indicated for prevention	Publish final impacts data

			of acute chest syndrome in hospitalized patients with sickle cell disease	
A-623	Phase 2	Anthera	Selective subcutaneous administered antagonist of soluble and membrane bound BAFF for the treatment of B-cell mediated disease e.g. Sjogren s syndrome or small vessel vasculitis or transplant rejection	Submit orphan product protocol to U.S. FDA

(1) Shionogi & Co., Ltd. retains product rights in Japan

We have historically spent a significant portion of our capital resources on research and development. Our research and development expenses were $29.5, $8.4 and $10.9 million for the years ended December 31, 2010, 2009 and 2008, respectively.

Varespladib

Varespladib is an orally administered pro-drug of A-001, which is a broad-spectrum, once-daily inhibitor of the IIa, V and X iso-forms of the $sPLA_2$ enzyme that has demonstrated potent anti-inflammatory, lipid-lowering and lipid-modulating treatment effects in multiple clinical studies. We have commenced the Phase 3 VISTA-16 study to

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evaluate varespladib in combination with atorvastatin therapy, specifically Lipitor, for the short-term (16-week) treatment of acute coronary syndrome. We have an agreement with the FDA on a Special Protocol Assessment, or SPA for the VISTA-16 study. An SPA provides an opportunity for the clinical study sponsor to receive feedback from the FDA regarding the potential adequacy of a clinical study to meet certain regulatory and scientific requirements if conducted in accordance with the SPA agreement. An SPA is not a guarantee of an approval of a product candidate or any permissible claims about the product candidate.

To date, over 1,000 patients and healthy volunteers in at least 15 previous clinical studies have been exposed to varespladib. Varespladib was generally well-tolerated in studies where patients were exposed to a maximum of 48 weeks of therapy. Varespladib has been studied in combination with Lipitor (atorvastatin) in a Phase 2b clinical study in acute coronary syndrome patients and two earlier Phase 2 clinical studies in stable CAD patients, the majority of whom were on various statin therapies.

We currently have all worldwide product rights to varespladib, except in Japan where Shionogi & Co., Ltd. retains rights. We originally licensed our $sPLA_2$ inhibitor portfolio, including varespladib and A-001, from Eli Lilly & Company, or Eli Lilly, and Shionogi & Co., Ltd. in July 2006.

Market Opportunity Acute Coronary Syndrome

According to the American Heart Association, over 18 million people in the United States have experienced an acute coronary syndrome and an estimated 1.5 million Americans will have a new or recurrent heart attack. In addition, the American Heart Association estimates that worldwide, cardiovascular disease kills an estimated 17.5 million people each year. According to British Heart Foundation statistics, CAD, which often leads to acute coronary syndrome or heart attacks, accounts for 1.9 million deaths in Europe annually. According to the World Health Organization, or the WHO, cardiovascular disease is the most common cause of death in the western world and a major cause of hospital admissions. In addition, the American Heart Association provides that for people over the age of 40, 20% of them will die within one year following an initial heart attack, and over one-third of them will die within the first five years of an initial heart attack. These numbers are expected to increase given an aging population, as well as the rising epidemics of diabetes and obesity, two conditions known to increase the risk of acute coronary syndrome.

The American Heart Association defines acute coronary syndrome as any group of clinical signs and symptoms related to acute myocardial ischemia. Acute myocardial ischemia can often present as chest pain due to insufficient blood supply to the heart muscle that results from CAD. Acute coronary syndrome covers a spectrum of clinical conditions that include ST-elevated myocardial infarction, or STEMI, non-ST-elevated myocardial infarction, or NSTEMI, and UA. Both STEMI and NSTEMI are forms of a heart attack, where damage to the heart muscle occurs due to ischemia, which is lack of blood flow to tissues due to a blockage of a vessel. Typically, UA results in chest pain from ischemia, but does not cause permanent damage to the heart muscle.

Furthermore, for any patient who experiences an acute coronary syndrome, the risk of a secondary MACE is significantly increased immediately following the initial event. Large clinical outcome studies such as MIRACL and PROVE-IT have previously reported, and data from our own FRANCIS Phase 2b clinical study supports, the 16-week rate of secondary MACE in acute coronary syndrome patients to be between 6.1% and 14.8%.

Current treatments for CAD other than interventional procedures include a variety of medications such as aspirin, statins and anti-platelet and anti-coagulant therapeutics. These medications are used to offer both acute and chronic benefits to patients. For patients presenting with acute coronary syndrome, therapeutics are administered quickly to improve blood flow to the heart and limit the risk associated with continued ischemia and thrombosis, which is the formation of a blood clot inside a vessel, which obstructs blood flow. In addition, interventional procedures and other medications, such as statins that are initiated early primarily for lipid benefits, are continued in an attempt to provide

chronic protection against secondary MACE through improvement in lipid profiles such as lowering LDL-C.

Inflammation in Cardiovascular Disease

In patients experiencing an acute coronary syndrome, the relationship between higher levels of inflammation, as measured by CRP, $sPLA_2$ and interleukin-6, or IL-6, and increased risk for MACE has been demonstrated extensively. In numerous clinical studies with a variety of therapeutic interventions, reductions in CRP have been correlated with

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reductions in subsequent MACE. We believe, if our Phase 3 pivotal study is successful, that varespladib, if approved by the FDA, would represent the first anti-inflammatory therapeutic approved for prevention of MACE.

CRP is one of the most commonly used marker of inflammation. It has been correlated with adverse cardiovascular outcomes in multiple clinical studies. Although a causative role for CRP has not been established, inflammation is known to promote acute coronary syndrome and CRP may play a direct role in both vascular inflammation as well as plaque rupture.

Statins reduce the level of CRP and other markers of inflammation in patients with stable CAD. In April 2001, the Journal of the American Medical Association published results from the MIRACL study describing the effect of statins in acute coronary syndrome, where inflammation is greatly elevated. 3,086 were randomized within 96 hours of their index event to treatment with high-dose Lipitor (atorvastatin) or placebo. Lipitor (atorvastatin) significantly reduced secondary MACE after 16 weeks. A second paper from the same study, published in Circulation in 2003, described the rapid decline of inflammatory markers in patients on statin treatment that was associated with reduced MACE. After 16 weeks, Lipitor (atorvastatin) reduced CRP levels by 34%.

More recently, in 2005, the New England Journal of Medicine published data from the PROVE-IT study. A total of 3,745 patients were randomized to either intensive statin therapy with 80 mg Lipitor (atorvastatin) or moderate statin therapy with 40 mg pravastatin. Patients with low CRP or LDL-C had fewer MACE than those with higher levels of either CRP or LDL-C. Patients who had both LDL-C < 70 mg/dL and CRP < 1 mg/L had the fewest number of secondary events overall.

LDL-C in Cardiovascular Disease

The direct relationship between lower LDL-C levels and reduced risk for major cardiovascular events has been consistently demonstrated for over a decade in 18 outcome studies involving over 119,000 patients. Results from large clinical outcome studies demonstrate achieving incrementally lower LDL-C levels reduces the risk of future cardiovascular events and provides continued patient benefit. As a result, the lipid treatment guidelines have been revised to establish more aggressive LDL-C treatment goals over time. The most recent guidelines from the National Cholesterol Education Program s Adult Treatment Panel III, or NCEP ATP III, updated in 2004 advocate treatment goals for LDL-C below 100 mg/dL for high-risk patients and 70 mg/dL for very high-risk patients. Given the breadth of more recent clinical data available, we believe that future treatment guidelines from the NCEP will likely establish new LDL-C treatment goals that apply the 70 mg/dL standard or lower to a broader population of at-risk patients. Patients enrolled in our FRANCIS Phase 2b clinical study and our planned Phase 3 acute coronary syndrome study represent high-risk patients as defined by the NCEP.

In order to achieve these more aggressive LDL-C targets, doctors prescribe other approved lipid-lowering therapies such as cholesterol absorption inhibitors, nicotinic acid and fish oils in combination with statins to further reduce LDL-C. Still, many acute coronary syndrome patients who represent the NCEP ATP III guideline categories of high-risk and very high-risk do not achieve these recommended lipid goals despite maximum lipid-lowering therapies. Moreover, substantial residual risk remains even among the group of patients who do achieve these aggressive LDL-C goals suggesting additional biological mechanisms, including inflammation, may be relevant.

This is exemplified in a November 2008 publication in the New England Journal of Medicine that detailed the results from a 17,000 patient, multinational, primary prevention study named JUPITER. The study randomized patients with relatively normal levels of LDL-C, but elevated levels of inflammation based on CRP, to statin or placebo therapy. The JUPITER study was stopped early because those patients randomized to statin therapy demonstrated a statistically significant reduction in CRP, which also translated to a statistically significant reduction in cardiovascular events versus those on placebo. The reduction in events was well in excess of that which would be predicted from historical

data evaluating LDL-C reductions alone. While these results were generated in a primary prevention setting, we believe that the benefits of reducing inflammation may prove to be even more meaningful in settings where patients are in a hyper-inflammatory state, such as following an acute coronary syndrome. As a result of these studies, we believe that there is a substantial need for novel therapies that provide meaningful reductions in inflammation while also improving LDL-C levels in high-risk cardiovascular patients beyond the benefits of statin therapy. Therefore, it is our belief that targeting inflammation and elevated LDL-C with $sPLA_2$ inhibition during the early phase of an acute coronary syndrome will further improve patient outcomes.

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We believe that varespladib is one of only a few novel drugs in development with the potential to offer a clinical benefit to high-risk cardiovascular patients. Varespladib s unique mechanism provides potent anti-inflammatory activity, as measured by reductions in $sPLA_2$, CRP and IL-6; incremental lipid-lowering activity, as measured by LDL-C; and lipid-modulating activity beyond that achievable with statin therapy alone. Furthermore, because of their complementary mechanisms, we believe that the combination of statins and varespladib can provide synergistic anti-inflammatory and lipid-lowering benefits. We also have preliminary data to suggest that varespladib may be synergistic with other cardiovascular therapeutic regimens, such as niacin.

Pivotal VISTA-16 Study Acute Coronary Syndrome

In 2008, based on the results from Phase 2 stable CAD studies, as discussed below, we met with the FDA to discuss the next steps of clinical development of varespladib during our end of Phase 2 meeting. As a result of that meeting and the results from our Phase 2b acute coronary syndrome study, we submitted an SPA to the FDA for the Phase 3 VISTA-16 study of varespladib for the short-term (16-week) treatment of patients who have recently experienced an acute coronary syndrome. We reached agreement with the FDA on all aspects of the VISTA-16 study protocol, including patient inclusion/exclusion criteria, study size, statistical considerations, efficacy endpoints, study duration, randomization and lipid management strategies.

An independent DSMB will continually evaluate the performance of the VISTA-16 study over time to ensure patient safety. In addition, after a minimum of 1,000 patients have been enrolled in the VISTA-16 study, an independent statistician not involved with the conduct of the VISTA-16 study will conduct a biomarker analysis to ensure patient levels of inflammation, as measured by $sPLA_2$, CRP and IL-6, and lipid profiles, as measured by LDL-C, have met pre-specified reductions versus placebo at various time-points. These markers of inflammation and lipid profiles are established in the clinical community and pharmaceutical industry as independent predictors of cardiovascular risk and, if positive, will provide additional validation of our previous findings from the FRANCIS Phase 2b clinical study. At the same time, the independent DSMB will review all clinical data from the VISTA-16 study to ensure no emergent adverse safety signals.

In June 2010, we initiated enrollment in the VISTA-16 clinical study. Pursuant to our SPA agreement with the FDA, our multinational, randomized, double-blind, placebo-controlled Phase 3 acute coronary syndrome VISTA-16 study will enroll up to 6,500 patients. We anticipate the study will be conducted in up to 15 countries and up to 500 centers. However, enrollment may be stopped anytime after a minimum of 385 adjudicated endpoint events as described in the protocol have occurred. This number of events could allow us to detect a treatment effect on the composite endpoint as low as 18.1% with a p-value of less than 0.05. We may increase the sample size if the adjudicated endpoint events occur at a lower rate than we expect. Patients will be randomized at entry to receive 16 weeks of either 500 mg once-daily of varespladib or placebo in addition to a 20, 40 or 80 milligram dose of Lipitor (atorvastatin). The dose of Lipitor (atorvastatin) may be adjusted after eight weeks if the patient s LDL-C level remains above 100 mg/dL. Survival status will be obtained for patients six months after the completion of dosing. The clinical study will attempt to recruit a similar population of high-risk cardiovascular patients with acute coronary syndrome to those enrolled in the FRANCIS study. As in FRANCIS, randomization must occur within 96 hours of hospitalization for the acute coronary syndrome event, or if already hospitalized, within 96 hours of event diagnosis. Patient blood chemistry will be evaluated at baseline, 24 hours and weeks one, two, four, eight and 16. Randomization is being stratified by the presence or absence of lipid-lowering therapy prior to the index event as well as the type of acute coronary syndrome event, such as UA, NSTEMI or STEMI. The number of subjects who undergo percutaneous coronary intervention following the index event and prior to randomization will be limited to no more than 55% of the total patient population.

The primary endpoint of the VISTA-16 study is to determine whether 16 weeks of once-daily treatment with varespladib plus a dose of Lipitor (atorvastatin) is superior to placebo plus Lipitor (atorvastatin) in the time to the first

occurrence of the combined endpoint of cardiovascular death, non-fatal myocardial infarction, non-fatal stroke or documented UA with objective evidence of ischemia requiring hospitalization as defined by recent FDA draft guidance.

On July 22, 2009, the Center for Drug Education and Research division of the FDA issued draft recommendations for standardized definitions for cardiovascular outcomes trials. The VISTA-16 clinical study endpoint definitions conform to these guidelines.

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Components of VISTA-16 Primary (MACE) Endpoint

Cardiovascular Death

Non-Fatal Myocardial Infarction

Non-Fatal Stroke

Documented UA with Objective Evidence of Ischemia Requiring Hospitalization

A secondary endpoint for the VISTA-16 study is to determine whether varespladib plus a dose of Lipitor (atorvastatin) is superior to placebo plus Lipitor (atorvastatin) in the time to the first occurrence of the combined endpoint of all cause mortality, non-fatal myocardial infarction, non-fatal stroke or documented UA with objective evidence of ischemia requiring hospitalization. A comparison between treatment groups will also be made for each component of the primary efficacy endpoint. Additionally, the time to multiple occurrences of any non-fatal component of the composite primary endpoint will also be explored. The biomarkers CRP, IL-6, LDL-C and $sPLA_2$ will also be evaluated at each time point of the clinical study.

Historical Clinical Studies

Phase 2b Acute Coronary Syndrome Study FRANCIS (Fewer Recurrent Acute coronary events with Near-term Cardiovascular Inflammation Suppression)

In July 2008, we initiated a randomized, double-blind, placebo-controlled Phase 2b clinical study that enrolled 625 acute coronary syndrome patients across 35 centers in three countries. Given the drug s combined anti-inflammatory, lipid-lowering and lipid-modulating effects, we evaluated the effects of varespladib in acute coronary syndrome patients with high levels of inflammation and dislipidemia. The clinical study was designed to evaluate the safety and efficacy of varespladib when co-administered with the highest dose (80 mg) of Lipitor (atorvastatin). The clinical study randomized all patients to a minimum of 24 weeks of treatment with either 500 mg once-daily of varespladib or placebo in combination with 80 mg Lipitor (atorvastatin) and physician-directed standard of care.

Patients were eligible for enrollment if they had a diagnosis of UA, NSTEMI or STEMI. In addition, they must have had one of the following risk factors: diabetes, body mass index (BMI) $\geq$ 25 kg/m2, CRP $\geq$ 2 mg/L (NSTEMI/STEMI) or CRP $\geq$ 3 mg/L (UA) and presence of three (pre-defined) characteristics of metabolic syndrome. Subjects must have been randomized within $\leq$ 96 hours of hospital admission for the index event, or, if already hospitalized, within $\leq$ 96 hours of index event diagnosis. Any percutaneous revascularization was required to occur prior to randomization. In addition, because we wanted to assess the effects of varespladib with the highest available dose of Lipitor (atorvastatin), patients were not allowed to use any other lipid-lowering therapies during the clinical study. Follow-up visits for evaluation occurred post-randomization at weeks two, four, eight, 12, 16, 20, 24 and then monthly thereafter until clinical study completion. All enrolled subjects remained on treatment until all subjects had been treated for a minimum of 24 weeks or until the occurrence of MACE. Patients randomized into the FRANCIS study had baseline characteristics such as LDL-C indexed-event risk factors and demographics similar to other studies of this type. All patients who completed the clinical study received a final evaluation.

The primary efficacy endpoint evaluated the change in LDL-C after 500 patients completed eight weeks of treatment. LDL-C is the most widely recognized surrogate for predicting cardiovascular risk where percentage reductions in LDL-C have been highly correlated with reductions in future cardiovascular risk. Secondary endpoints included:

changes in established markers of inflammation such as $sPLA_2$, CRP and IL-6; and

the occurrence of secondary MACE (for purposes of this clinical study, all-cause mortality, non-fatal myocardial infarction, documented UA requiring urgent hospitalization, revascularization occurring ≥ 60 days post the index event or non-fatal stroke).

Results of the primary endpoint demonstrated a statistically significant incremental LDL-C reduction of 5.7% (p = 0.0023) in varespladib treated patients versus those treated with 80 mg Lipitor (atorvastatin) alone after eight weeks of therapy. A p-value is a probability with a value ranging from 0 to 1, which indicates the likelihood that a clinical study is different between treatment and control groups. P-values below 0.05 are typically referred to as

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statistically significant. A statistically significant difference was observed in LDL-C reduction from baseline as early as two weeks after treatment. The treatment effect was maintained throughout the observation period.

Secondary endpoints measured effects of varespladib on $sPLA_2$, CRP and IL-6 levels, which are well-established markers of inflammation. While the FRANCIS study was not designed to demonstrate statistically significant changes in CRP and IL-6, the results were consistent with previous studies, which demonstrated improvement across these biomarkers and achieved statistical significance at some time points.

$sPLA_2$ concentration was statistically significantly reduced from the earliest time point of two weeks through the 16-week time point ($p < 0.0001$) as compared to high-dose statin (80 mg Lipitor (atorvastatin)) therapy alone. While our first $sPLA_2$ measurement in this clinical study occurred at two weeks, data from previous clinical studies utilizing varespladib or A-001 demonstrated reductions in $sPLA_2$ as early as two days following treatment.

In addition, treatment-related reductions in CRP and IL-6 levels were also greater in varespladib treated patients compared to those treated with placebo at all time points in the clinical study. The percent decrease in CRP at week two was nearly two-fold greater among varespladib and 80 mg Lipitor (atorvastatin) treated patients than those treated with placebo and 80 mg Lipitor (atorvastatin) alone (-39% versus -20%, $p = 0.183$), and at week 16, the difference between treatment groups was statistically significant (-82% versus -73%, $p = 0.0067$). At weeks two, four, eight and 16, varespladib treated patients had numerically reduced levels of CRP versus patients treated with placebo.

The percent decrease in IL-6 in patients on varespladib at week two was more than three times the reduction in IL-6 in patients on placebo (-18% versus -5.1%, $p = 0.18$).

Treatment with varespladib resulted in more subjects with LDL-C levels lower than 70 mg/dL and lower than 50 mg/dL than those on placebo (80 mg Lipitor (atorvastatin) and physician-directed standard of care) alone at eight, 16 and 24 weeks of treatment. As discussed above, the NCEP ATP III guidelines have established an LDL-C of 70 mg/dL as an optional target for very high-risk patients. As indicated in the table below, the data suggests varespladib treatment helps patients achieve their LDL-C target levels more quickly and maintain them longer than with high-dose statin (80 mg Lipitor (atorvastatin)) therapy alone.

Finally, given the importance of reducing inflammation as well as LDL-C following an acute coronary syndrome event, we examined the proportion of patients in the clinical study that were able to achieve both LDL-C levels less than 70 mg/dL and CRP levels below 1 mg/L. Significantly more patients at week four and week 16 ($p = 0.02$ and $p = 0.01$) reached this combined target when treated with varespladib and 80 mg Lipitor (atorvastatin) than with placebo and 80 mg Lipitor (atorvastatin) alone. (The actual proportion of subjects in the varespladib group was 25% and 16% in the placebo group). Additionally, in the PROVE-IT study a comparable proportion (16%) of patients treated with 80 mg Lipitor (atorvastatin) achieved these goals.

We also conducted an exploratory analysis of MACE in the clinical study. At 16 weeks, there were 14 (4.2%) MACE in the varespladib treated group as compared to 19 (6.1%) in the placebo group. At the completion of the clinical study, all patients had received at least six months of therapy and there were 23 (7.4%) MACE in the varespladib treated group as compared to 24 (7.7%) MACE in the placebo group. While the MACE analysis was not designed to demonstrate any statistical differences between the two treatment groups, we believe that the results are encouraging and has helped us to design our VISTA-16 study.

Overall, varespladib was generally well-tolerated in this clinical study and no imbalance was seen in dropouts due to drug effects. After completing patient treatment, overall exposure to varespladib was a mean of 30 weeks and median of 34 weeks. In total, 485 total patients completed six months of treatment, with 167 subjects completing 40 weeks and 70 completing 44 weeks. There was no imbalance of overall adverse events between the treatment arms. During

the clinical study, at week four and week eight, occasional mild and transient elevations in liver enzymes, defined as elevations three times the upper limit of normal, were seen among more patients taking varespladib, but the frequency and magnitude of the elevations were not meaningfully different between the active and control groups at the end of the clinical study. The frequency of the elevations was also similar to that reported for Lipitor (atorvastatin) and other currently approved lipid-lowering agents. Furthermore, there were no effects on blood pressure or the QT interval, an electro-cardiographic safety endpoint.

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Summary data from FRANCIS was presented at the American College of Cardiology meeting in 2010 and the detailed results from the study were published in the Journal of the American College of Cardiology in September 2010.

Phase 2 Stable Coronary Artery Disease Study PLASMA (Phospholipase Levels and Serological Markers of Atherosclerosis): Varespladib Twice-Daily Versus Placebo

Our Phase 2 PLASMA study was designed to confirm the safety and effect of varespladib on $sPLA_2$ concentration, other inflammatory biomarkers and lipids in patients with stable CAD. In October 2007, we completed a randomized, double-blind, placebo-controlled study evaluating four doses of varespladib administered twice-daily versus placebo among 396 patients with stable CAD from 38 centers in two countries. The clinical study enrolled patients more than 12 weeks after a myocardial infarction or six weeks after an episode of UA. The varespladib doses tested were 50 mg, 100 mg, 250 mg and 500 mg administered twice per day. Following randomization, patients were treated for eight weeks and safety and efficacy evaluations were conducted at weeks two, four and eight. Physician-directed standard of care therapies were permitted during the clinical study, including 259 patients who were on background statin therapy.

The primary endpoint of the clinical study was the change in $sPLA_2$ concentration from baseline to week eight in varespladib, across all doses, versus placebo patients. Secondary endpoints in the clinical study included the change in lipids, including LDL-C, lipoprotein subclasses and certain inflammatory biomarkers, from baseline to each of weeks two, four and eight.

Our Phase 2 PLASMA results were selected for a late-breaking presentation at the American Cardiology Conference and published in the Lancet journal in February 2009. Results from the clinical study demonstrated that treatment with varespladib led to statistically significant reductions in $sPLA_2$, LDL-C and various plaque-building and pro-inflammatory forms of LDL-C. In patients receiving varespladib, there were incremental reductions in CRP versus placebo (-55.6% versus -24.8%, $p = 0.47$) from baseline to eight weeks.

Among all patients treated with varespladib, median $sPLA_2$ concentration decreased by 86.7% from baseline to week eight, as compared to 4.8% in the placebo group ($p < 0.0001$). Median $sPLA_2$ concentration decreased among the varespladib groups in a dose-dependent manner.

At week eight, across all dosage groups, LDL-C was reduced by 9.7% versus placebo ($p = 0.0035$). In a subgroup of patients taking statins with LDL-C > 70 mg/dL, LDL-C was reduced by 12.0% ($p = 0.0065$) versus placebo at the eight week time point. Notably, the reductions in LDL-C appear to be driven primarily by a shift in the distribution of LDL-C particles with fewer pro-atherogenic, pro-inflammatory small LDL-C particles present in the circulation. In addition, statistically significant reductions from baseline to week eight were seen in total cholesterol and non-HDL cholesterol in the overall clinical study population treated with varespladib.

Varespladib was generally well-tolerated among all patients treated. In general, adverse effects were mild or moderate with no imbalance of adverse events in the varespladib groups as compared to placebo. The most common adverse effects seen in the varespladib groups were headache (6.4%) and nausea (5.4%). There were mild and transient elevations of liver function tests, defined as elevations three times the upper limit of normal, in patients taking varespladib.

Phase 2 Stable Coronary Artery Disease Study PLASMA-2 (Phospholipase Levels and Serological Markers of Atherosclerosis -2): Once-Daily of Varespladib Versus Placebo

Based on data from our first PLASMA study, we initiated a second Phase 2 clinical study (PLASMA-2) to evaluate the effect of once-daily varespladib treatment on inflammatory and lipid biomarkers. In December 2007, we

completed a randomized, double-blind, placebo-controlled Phase 2 clinical study evaluating two doses of varespladib versus placebo amongst 138 patients with stable CAD. The clinical study, conducted in the United States, involved 13 clinical sites. Following randomization to one of two doses of varespladib or placebo, patients were treated for eight weeks with safety and efficacy evaluations at weeks two, four and eight. Physician-directed standard of care therapies were permitted during the clinical study, including 123 patients (89.1%) who were on background statin therapy.

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The primary endpoint of the clinical study was a comparison between once-daily doses of varespladib and placebo in changes in $sPLA_2$ concentration at week eight. Secondary endpoints in the clinical study included measurements of lipids including LDL-C and certain other inflammatory biomarkers from baseline to each of weeks two, four and eight.

Results of the primary endpoint, $sPLA_2$, were statistically significant and consistent with those generated from the first PLASMA study described above. Patients on varespladib demonstrated a 77.8% reduction in $sPLA_2$ concentration as compared to an increase of 8.3% in placebo treated patients ($p < 0.0001$). Pharmacokinetic data indicated that once-daily dosing with varespladib would be sufficient to achieve over 90% inhibition of $sPLA_2$ mass and activity over a 24-hour period.

The anti-inflammatory, lipid-lowering and lipid-modulating effects of varespladib treatment were consistent with those seen in the first PLASMA study: LDL-C was decreased by 8.3% compared to 0.7% in placebo ($p = 0.014$). Due to the small size of this clinical study and the low baseline inflammation present in these patients, no meaningful changes with CRP could be detected between the active and control groups. As was observed in the first clinical study, there were statistically significant reductions from baseline to week eight in total cholesterol and non-HDL cholesterol in the overall clinical study population treated with varespladib.

The adverse effect profile for varespladib was consistent with earlier studies and there was no imbalance of adverse events among the varespladib groups and placebo. Varespladib was generally well-tolerated. The most common effects seen in the varespladib groups were diarrhea (6.7%), nausea (5.6%), any increase in alanine aminotransferase (5.6%), which is an enzyme that indicates liver cell injury, and any increase in aspartate aminotransferase (5.6%), which is another enzyme that indicates liver cell injury. However, mild and transient elevations of these liver enzymes, defined as elevations three times the upper limit of normal, were infrequent in patients taking varespladib.

Placebo-corrected Percent Decrease from Baseline to Week Eight in Biomarkers

	$sPLA_2$	**LDL Cholesterol**	**Total Cholesterol**	**Non-HDL Cholesterol**	**Oxidized LDL-C**
PLASMA	81.9%	9.7%	4.9%	7.2%	5.4%
(All doses varespladib)	($p < 0.0001$)	($p = 0.0035$)	($p = 0.0069$)	($p = 0.0009$)	($p = 0.0065$)
PLASMA-2	86.1%	13.9%	9.2%	14.2%	7.3%
(500 mg varespladib)*	($p < 0.0001$)	($p = 0.0007$)	($p = 0.0006$)	($p = 0.0001$)	(pNS)( )

* Dose selected for Phase 3

Probability not significant

Investigator-Sponsored Phase 2 Percutaneous Intervention Study SPIDER-PCI ($sPLA_2$ Inhibition to Decrease Enzyme Release After PCI): Varespladib Once-Daily Versus Placebo for up to 10 Days.

In May 2007, Dr. Vladimir Dzavik at University Health Network Hospital in Toronto, Ontario, Canada initiated an investigator sponsored study with varespladib in patients undergoing a percutaneous intervention, or PCI. The primary endpoint of this study was to determine if inhibition of $sPLA_2$ with varespladib will result in a decrease in peri-PCI myocardial necrosis, or heart muscle damage, as measured by elevations of myocardial enzyme markers creatine kinase-MB, or CK-MB, or troponin I. The study was to enroll a maximum of 164 patients who were scheduled to

undergo PCI. Elevated levels of troponin I following PCI are associated with an increase in in-hospital complications and, in one study, were an independent predictor of major cardiac events. After PCI, circulating levels of $sPLA_2$ increase and patients with higher levels have an increased risk of events after a two-year follow-up. This study explores the notion that $sPLA_2$ inhibition may reduce myocardial damage after PCI and improve patient outcomes.

As of August 2009, enrollment and dosing in the SPIDER-PCI investigator study were completed with 144 patients evaluated for purposes of assessing the primary endpoint. On December 11, 2009, we received a statistical analysis of the patient evaluations, which showed that the primary endpoint of the study, a reduction in the elevation of CK-MB or troponin I above the upper limit of normal at six to eight hours or 18 to 24 hours, was not met (varespladib patients 57% versus placebo patients 51%, $p = 0.55$). However, the results showed statistically significant reductions of $sPLA_2$ as early as 18 hours post-PCI procedure, which persisted throughout the five days of

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dosing (-93.0%, $p < 0.001$). Consistent with results from other clinical studies with varespladib, there were numerical reductions in CRP from baseline versus placebo at three to five days (-82.1%, $p = 0.23$).

Previous Experience at Eli Lilly and Shionogi & Co., Ltd.

Eli Lilly and Shionogi & Co., Ltd. previously conducted a series of clinical studies evaluating varespladib and A-001 in various inflammatory conditions. In total, at least 17 Phase 1 and Phase 2 clinical studies evaluated varespladib and A-001 as a treatment in sepsis, rheumatoid arthritis, asthma and ulcerative colitis, an inflammatory bowel disease. Results from these studies provide a large body of safety data for varespladib and A-001 with more than 1,000 healthy volunteers and subjects receiving treatment.

Throughout these studies, varespladib was generally well-tolerated.

Non-Clinical Studies with Varespladib and A-001

Approximately 150 preclinical pharmacology and toxicology studies have been completed with varespladib and A-001, including two-year rat and mouse carcinogenicity studies, one-year primate study and three-month rat study in combination with Lipitor (atorvastatin).

A-623

A-623 is a peptibody antagonist of the BAFF cytokine that is initially being developed as a treatment for lupus. BLyS, also known as B-cell activating factor, or BAFF, is a tumor necrosis family member and is critical to the development, maintenance and survival of B-cells. It is primarily expressed by macrophages, monocytes and dendritic cells and interacts with three different receptors on B-cells including BAFF receptor, or BAFF-R, B-cell maturation, or BCMA, and transmembrane activator and cyclophilin ligand interactor, or TACI. The BAFF-R receptor is expressed primarily on peripheral B-cells.

Two randomized, dose-ranging, placebo-controlled Phase 1 clinical studies for A-623 in 104 lupus patients have already been completed. Results from these studies demonstrated A-623 generated anti-BAFF activity and showed statistically significant reductions in B-cells of 50-70% ($p < 0.001$) in lupus patients across multiple subcutaneous and intravenous formulations.

After successfully reactivating our Investigational New Drug Application, or IND, we initiated a Phase 2b clinical study with A-623 for the treatment of lupus in July 2010 called PEARL-SC. We may also study A-623 in other B-cell mediated autoimmune diseases such as Sjögren s Syndrome or orphan indications such as myasthenia gravis and pemphigus. We are actively pursuing a partnership with major pharmaceutical companies to develop and commercialize A-623.

We intend to advance the development of our BAFF targeting molecule, A-623, a selective peptibody, to exploit its broad clinical utility in autoimmune diseases. A-623, as a peptibody directed against BAFF, was developed as an alternative to antibodies and is produced in *Escherichia coli* bacterial culture versus antibodies that are produced in mammalian cell culture. In addition, A-623 offers a number of potential differentiations over other anti-BAFF compounds, as well as other novel B-cell directed therapies, including:

- convenient, at-home, patient-administered subcutaneous dosing with a range of dosing frequencies including monthly and weekly;

ability to inhibit the activity of both membrane-bound and soluble BAFF, which may confer differentiating pharmacodynamic characteristics;

non-glycosylated protein that is produced in a bacterial fermentation manufacturing process, which may reduce the potential to be immunogenic and may provide manufacturing benefits and lower cost of goods; and

multiple binding domains achieve highest reported affinity for inhibition of BAFF.

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Market Opportunity

Lupus is an autoimmune disorder that involves inflammation that causes swelling, pain and tissue damage throughout the body. Lupus can affect any part of the body, but especially the skin, heart, brain, lungs, joints and the kidneys. The course of the disease is unpredictable, with periods of illness, called flares alternating with remission. The Lupus Foundation estimates that approximately 1.5 million people in the United States and five million worldwide suffer from lupus. Although lupus may affect people of either sex, women are 10 times more likely to suffer from the disease than men, according to the Lupus Foundation.

Patients with active lupus may have a broad range of symptoms related to the inflammation. Inflammation of the brain may cause seizures and other neurologic abnormalities. Inflammation of the heart may cause heart failure or sudden death. Lung inflammation causes shortness of breath. Lupus may also cause swollen joints and severe rash. In addition, LN may lead to requiring kidney dialysis or transplantation.

Although the cause of lupus is still not completely understood, B-cell activation and autoantibody production are known to be central to the process. Evidence has emerged that over-expression of BAFF plays an important role in this disease process. In preclinical studies, transgenic mice created to over-express BAFF begin to exhibit symptoms similar to lupus. In addition, treatment of these same mice with BAFF antagonists appears to ameliorate the disease.

PEARL-SC Phase 2b Clinical Study in Patients with Lupus

Based on positive results among 104 patients in our Phase 1a and 1b clinical studies, we initiated a Phase 2b clinical study in lupus patients called PEARL-SC. PEARL-SC is a randomized, placebo-controlled, phase 2b clinical study which may enroll up to 600 patients in approximately 90 centers worldwide. Subjects will be randomized into three active subcutaneous treatment arms and one placebo treatment arm for a minimum of 24 weeks. The primary endpoint of the PEARL-SC study will be clinical improvement at 24 weeks in responder rates of a composite systemic lupus erythematosus responder index, or SRI, in the pooled treatment arms versus placebo. The primary SRI endpoint is a composite score based upon changes in SELENA and SLEDAI disease activity scale, Physician s Global Assessment scores and British Isles Lupus Assessment Group scores, which are clinical standards for the measurement of disease severity in lupus patients. Secondary endpoints will include safety, improvement in other clinical assessment scores, clinical response in patients with various baseline disease severities, resolution of fatigue, steroid utilization and time to flare. An interim biomarker analysis to establish the appropriate drug effect on total B-cells is included early in the study. Initially we intend to randomize only 540 patients. This total number of patients will potentially allow us to detect a treatment effect of 14% with a p-value of 0.05 between the pooled active arms and the placebo arm.

In November 2010, we placed a voluntary hold on the PEARL-SC study due to problems found with vials. Patient enrollment in the study was temporarily suspended and dosing was discontinued in patients who were enrolled in the study while we conducted an analysis of the problem. We resolved the issues found with the vials in December 2010. After analysis, simulation and consultation with industry experts, we determined that shipping on dry ice was the root cause of the issue. Shipping logistics were modified and we reinitiated enrollment in PEARL-SC and dosing in January 2011. We have received no reports of patient-related side effects or problems with drug administration that could be attributed to the vial problem.

Future Development of A-623

A-623 Manufacturing Strategy

In May 2010, we successfully completed a manufacturing campaign for a high concentration A-623 injection formulation for subcutaneous administration. Manufacturing was conducted per current good manufacturing practices, or cGMP, and the product was released to clinical sites in July 2010. In August 2010, we manufactured a second batch of vials of the high-concentration A-623 injection formulation from 34 liters of Amgen manufactured bulk drug substance, which was subsequently released for clinical use. We believe we now have sufficient clinical material, both placebo and A-623, to dose up to 540 patients for a minimum of six months in the PEARL-SC study.

In December 2010, we announced the selection of a CMO for our larger scale GMP manufacturing, the Merck Biomanufacturing Network (recently acquired by Fujifilm), and began the technical transfer of the full

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manufacturing of GMP bulk product for eventual pivotal clinical studies and an optional expansion and/or extension of the PEARL-SC study.

The following chart outlines the basic manufacturing steps required for the production of A-623.

A-623 Regulatory Strategy

In July 2010, we received clearance from the FDA to begin recruitment of lupus patients into the PEARL-SC clinical study. The study protocol allows for enrollment of up to 600 patients treated for a maximum of 12 months. Patients enrolled in this study will be randomized into three active treatment arms and one placebo arm. Subsequent to this clearance, the FDA requested additional information regarding characterization and qualification of the manufactured vials of A-623. In addition, the FDA requested minor changes to aspects of the PEARL-SC study including collection of ECG testing at the end of dosing and a recommendation for a corticosteroid tapering strategy. Neither of these changes are considered material to the conduct of the PEARL-SC study. The FDA also recommended we submit to the IND analytical and comparability data from our recently completed manufacturing lot of A-623 vials and a comparability proposal for purposes of soliciting their input prior to implementation. We submitted a response to the FDA in October 2010.

It is our intent to discuss with the FDA comparability proposals which will propose the method by which future batches of material manufactured by our CMO would meet the FDA s standards for equivalence. We also intend to continuously submit results of comparability testing from all of our manufacturing campaigns to the FDA. If these batches meet specification and the FDA agrees A-623 product manufactured by our CMO meets comparability requirements, we believe these batches could be used to further extend and expand the PEARL-SC study and/or initiate identical Phase 3 clinical studies for purposes of registration.

Historical Clinical Studies

Prior to our in-licensing of A-623, Amgen completed two Phase 1 clinical studies of A-623 in lupus patients to evaluate the safety and pharmacokinetics of single and multiple doses of the drug using intravenous and subcutaneous formulations. Prior to conducting Phase 1 clinical studies in lupus patients, Amgen conducted a pre-Phase 1 clinical study in lupus patients. In Amgen s pre-Phase 1 clinical study, individual B-cell subsets, such as mature naïve B-cells, activated B-cells and memory B-cells, all therapeutic targets for A-623, were quantified in order to characterize the specific B-cell subset abnormalities associated with lupus.

The randomized, placebo-controlled, dose-escalation Phase 1a clinical study evaluated A-623 as a single intravenous or subcutaneous therapy among 56 lupus patients. Intravenous doses included 1, 3 and 6 mg/kg, and subcutaneous doses included 0.1, 0.3, 1 and 3 mg/kg. The primary endpoint was to assess the safety and tolerability of single dose administrations of A-623. Secondary endpoints were designed to assess the plasma pharmacokinetic profile and immunogenicity of A-623. Results from this clinical study indicated the safety and tolerability of A-623 administered as single dose of intravenous or subcutaneous was comparable to placebo. Single doses of A-623 exhibited linear pharmacokinetics after both intravenous and subcutaneous administration. There were comparable adverse events between the A-623 and placebo groups with no deaths reported. In addition, no neutralization antibodies were seen across all doses. The most common adverse events were nausea (15%), headache (10%), upper respiratory tract infection (10%) and diarrhea (8%).

A-623 was evaluated in a randomized, placebo-controlled, multi-dose Phase 1b clinical study as an intravenous or subcutaneous therapy among 63 lupus patients. The intravenous dose was 6 mg/kg, and subcutaneous doses included 0.3, 1 and 3 mg/kg. Patients received their doses of A-623 or placebo once-weekly for four weeks. The primary

endpoint was to assess the safety and tolerability of multiple dose administrations of A-623. Secondary endpoints were designed to assess the plasma pharmacokinetic profile and immunogenicity of A-623 after multiple doses. Results showed that multiple doses of A-623 exhibited dose-proportional pharmacokinetics after both intravenous and subcutaneous administration. Further, results demonstrated a dose-dependent decrease in total B-cells as early as 15 days of treatment, and total B-cell reduction (up to approximately 60-70% of baseline) reached its nadir after about 160 days of therapy. By six months after treatment, the B-cell populations had returned to baseline levels.

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An experimental analysis was also conducted to assess B-cell subsets in patients following multiple doses. Results demonstrated that A-623 selectively modulates certain B-cell subsets and induced trends toward normalizing the B-cell abnormalities that were observed in lupus patients in the pre-Phase 1 clinical study.

Results indicated that the tolerability of A-623 administered as multiple doses of intravenous or subcutaneous administration was generally comparable to placebo. There were no deaths reported between the A-623 and placebo groups. Few neutralization antibodies were seen, and all resolved in subsequent visits. Based on these results and published data from competitor studies, we initiated a Phase 2b clinical study evaluating A-623 in lupus patients during the second half of 2010.

A-001

A-001 is an intravenously administered, potent, broad-spectrum inhibitor of $sPLA_2$, including forms IIa, V and X. A-001 will be evaluated in a Phase 2 clinical study for the prevention of acute chest syndrome associated with sickle cell disease in at-risk patients. Substantial scientific evidence implicates $sPLA_2$ activity in the development of acute chest syndrome associated with sickle cell disease, as well as other forms of acute lung injury. The FDA granted orphan drug and fast-track designation for A-001 for the prevention of acute chest syndrome in at-risk patients. We currently retain all worldwide product rights, except in Japan where Shionogi & Co., Ltd. retains rights. We also licensed A-001 from Eli Lilly and Shionogi & Co., Ltd. in July 2006.

$sPLA_2$ levels increase in advance of acute chest syndrome episodes and can be used alongside the presence of fever to strongly predict an impending episode. There is a strong correlation between levels of CRP and $sPLA_2$ in this patient population. Patients with acute chest syndrome associated with sickle cell disease can exhibit levels of $sPLA_2$ that can be 100 times greater than normal. We believe that early intervention with A-001 to inhibit $sPLA_2$ activity may offer a novel preventative therapy to improve outcome among sickle cell disease patients presenting with a high risk of acute chest syndrome.

Market Opportunity

Sickle cell disease is a lifelong genetic, blood disorder typically diagnosed during early childhood. According to the Sickle Cell Information Center, in the United States, over 70,000 people currently suffer from the disease and approximately 1,000 children are born with the disease annually. According to Medtech Insight, in Europe, there are over 200,000 people suffering from the disease, and the numbers increase dramatically in Africa, where, according to the WHO, 200,000 children alone are born with sickle cell disease each year. Life expectancy for these patients is significantly shortened, with most expected to live only until their mid-40s.

The disease is characterized by structurally altered red blood cells that assume an abnormal shape, similar to a sickle, and produce an altered form of hemoglobin. These altered red blood cells have a shortened life-cycle, become stiff and have difficulty passing through the body s small blood vessels. At times, these abnormal cells may obstruct or block blood flow through small blood vessels, leading to significant damage in tissue and bone. This damage is more

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commonly labeled as VOC. During VOC, blockage occurs within the circulation of the long bones, causing microscopic bone damage. Fragments of bone or bone fat may break free and embolize to the lungs, causing lung injury.

VOC is a common trigger for the more serious complication of acute chest syndrome associated with sickle cell disease. Acute chest syndrome exhibits symptoms and characteristics similar to acute lung injury. There are an estimated 10,000 episodes of acute chest syndrome associated with sickle cell disease per year in the United States. It represents the most common cause of death in sickle cell patients and the second most common cause of hospitalization among such patients. A majority of sickle cell patients will experience at least one episode of acute chest syndrome and repeated episodes can result in progressive lung disease. The disorder is most common in the two- to four- year age group and gradually declines in incidence with age.

There are no marketed therapies targeting acute chest syndrome associated with sickle cell disease. The most common treatment regimen includes heavy doses of corticosteroids, opiates, transfusion and antibiotics while the patient suffers through the attack. In addition, hydroxyurea, a chemotherapy, was found to reduce the frequency of VOC and the need for blood transfusions in adult patients with sickle cell disease. However, all of these therapeutics are associated with significant adverse effects while only offering limited patient benefit.

Phase 2B Clinical Study: Prevention of Acute Chest Syndrome in Patients with Sickle Cell Disease

Our planned multinational, randomized, double-blind, placebo-controlled Phase 3 clinical study will enroll up to 200 patients with sickle cell disease who are at an elevated risk of developing acute chest syndrome as a result of fever, VOC and CRP 5.0 mg/l ³ at the time of hospitalization. Patients will be randomized to receive a continuous infusion of A-001 or placebo for 48 hours after randomization. The primary endpoint of this study will be freedom from acute chest syndrome as determined by physician assessment and independent review of chest X-rays. This study represents a unique treatment approach for a small, orphan designated indication. As a result the appropriateness of the design and endpoints of this study for purposes of registration will only be known at the conclusion of the study and upon submission to the FDA.

Historical Clinical Studies

Phase 2 Acute Chest Syndrome in Hospitalized Patients with Sickle Cell Disease Study Investigation of the Modulation of Phospholipase in Acute Chest Syndrome, or IMPACTS.

In January 2007, we initiated a randomized, double-blind, placebo-controlled Phase 2 clinical study to assess the safety and tolerability of escalating doses of A-001 therapy when administered as a 48-hour continuous infusion. The clinical study was designed to enroll up to 75 patients across approximately 30 sites in the United States. This clinical study enrolls hospitalized sickle cell disease patients at risk for acute chest syndrome on the basis of VOC,

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fever and serum $sPLA_2$ concentration level greater than 50 mg/mL. The primary endpoint for the clinical study was designed to assess safety and tolerability. Secondary endpoints included the absence of acute chest syndrome, suppression of $sPLA_2$, reduced need for blood transfusions and assessment of pharmacokinetics.

The first group of patients was randomized 2:1 to receive low dose A-001 or placebo as a 48-hour continuous infusion. A pre-specified interim analysis was conducted in February 2009 after the 30th patient completed treatment to examine safety and adjust dosing schedules. The interim data was balanced between two dosing arms of 30 55 µg/kg/hr (n = 11) and 55 µg/kg/hr (n = 6). Interim results indicated serum levels of A-001 when dosed at 55 µig/kg/hr reduced $sPLA_2$ activity levels by more than 80% from baseline within 48 hours. Furthermore, the prevention of acute chest syndrome associated with sickle cell disease appeared to be related to the level of $sPLA_2$ activity. The DSMB recommended the clinical study continue based on safety and tolerability. In addition, given the safety profile, the DSMB approved the addition of a higher dose group of 110 µg/kg/hr via continuous infusion during the second half of the clinical study. We believe that the data suggests A-001 can suppress $sPLA_2$ at levels that may prevent the complication of acute chest syndrome associated with sickle cell disease.

Reductions of $sPLA_2$ activity from baseline and incidence of acute chest syndrome (including placebo patients and patients receiving A-001). Exploratory analysis to determine correlation between degree of $sPLA_2$ suppression and incidence of acute chest syndrome.

48-Hour $sPLA_2$ Activity as a Percentage of Baseline	**0.0% < 25.0%**	**³ 25% ³ 50%**	**³ 50% ³ 75%**	**³ 75%**
Number of Subjects	7	7	3	12
Number of Subjects Developing Acute Chest Syndrome (%)	0(0)	2(28)	1(33)	4(25)

Our Strategy

Our objective is to develop and commercialize our product candidates to treat serious diseases associated with inflammation, including cardiovascular and autoimmune diseases. To achieve these objectives, we intend to initially focus on:

Advancing Varespladib Through Phase 3.

Inflammatory processes and lipid abnormalities are central to the onset of acute coronary syndrome and the development of CAD. Varespladib operates through a novel mechanism of action to offer both targeted anti-inflammatory activity and incremental lipid reductions, including LDL-C, when used in combination with statins. Despite the benefits of statin therapy, many acute coronary syndrome patients still remain at substantial risk of a coronary event, suggesting additional biological mechanisms may be relevant, including inflammation. We believe that combination therapy with varespladib and statins will provide acute coronary syndrome patients with a unique, short-term therapeutic option unavailable with existing agents today. In addition, we believe that an opportunity exists in the future to evaluate varespladib in chronic indications such as CAD.

Advancing Clinical Development of A-623.

We are advancing the development of A-623 to exploit the broad potential clinical utility of BAFF antagonism. We have initiated the Phase 2b clinical study known as PEARL-SC in lupus patients. We may opportunistically enter into

collaborations with third parties for development of this compound in lupus or in other B-cell mediated diseases, such as multiple sclerosis, rheumatoid arthritis or Sjögren s Syndrome, that may benefit from BAFF antagonism, including securing corporate partners whose capabilities complement ours.

Potential Development of A-00.1

In the future, if additional funds are available, we may develop A-001, an intravenous $sPLA_2$ inhibitor for prevention of acute chest syndrome associated with sickle cell disease, because we identified that elevations in $sPLA_2$ activity are known to precede and predict disease progression. Given that there are currently no approved drugs for the prevention of acute chest syndrome associated with sickle cell disease, we have received orphan drug designation and fast track status from the FDA for A-001.

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Leveraging Our $sPLA_2$ Expertise to Develop Products for Additional Disease Indications.

We believe that we have developed a leadership position in the field of $sPLA_2$ inhibition. Beyond our acute coronary syndrome and acute chest syndrome program, we believe that $sPLA_2$ inhibition may have applications in other acute disease settings where early intervention may have an impact and reduce anti-inflammatory activity, such as acute lung injury. Additionally, we believe that we can apply our $sPLA_2$ expertise to develop novel therapeutics for a number of chronic diseases. For example, $sPLA_2$ has been shown to be involved in the development of such chronic inflammatory diseases as atherosclerosis and dermatitis. We plan to pursue these indications opportunistically and potentially in collaboration with third parties.

We are also developing new and unique $sPLA_2$ inhibitor compounds for additional therapeutic areas. A-003 is our second generation lead candidate. We plan to continue preclinical development of A-003 for an IND filing and we will continue to assess additional new compounds.

Developing Commercial Strategies Designed to Maximize Our Product Candidates Market Potential.

Our primary product candidates are focused on either the acute care setting in the hospital or highly-specialized physician segments, such as rheumatologists. We believe that we can build a small, focused sales force capable of marketing our products effectively in acute care and orphan indications such as acute coronary syndrome and acute chest syndrome associated with sickle cell disease. In other chronic indications such as CAD, we intend to seek commercial collaborations with companies that have a large, dedicated sales force focused on general practitioners and cardiologists and we plan to seek commercialization partners for products in non-specialty and international markets.

Competition

Our industry is highly competitive and subject to rapid and significant technological change. Our potential competitors include large pharmaceutical and biotechnology companies, specialty pharmaceutical and generic drug companies, academic institutions, government agencies and research institutions. We believe that key competitive factors that will affect the development and commercial success of our product candidates are efficacy, safety and tolerability profile, reliability, convenience of dosing, price and reimbursement.

Many of our potential competitors, including many of the organizations named below, have substantially greater financial, technical and human resources than we do and significantly 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 FDA approval for drugs and achieving widespread market acceptance. Our competitors drugs may be 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. Finally, the development of new treatment methods for the diseases we are targeting could render our drugs non-competitive or obsolete.

The $sPLA_2$ product candidates we are currently developing, if approved, will face intense competition, either as monotherapies or in combination therapies. Although there are no $sPLA_2$ inhibitors currently approved by the FDA, we are aware of other pharmaceutical companies, as described below that are developing product candidates in this area for separate indications.

$sPLA_2$ in Acute Coronary Syndrome

Our lead product candidate, varespladib, for the short-term (16-week) treatment of acute coronary syndrome has a dual mechanism of action that we believe confers anti-inflammatory and lipid-lowering and lipid-modulating benefits. The market for cardiovascular therapeutics and acute coronary syndrome, specifically, is especially large and competitive. A wide range of medications are typically administered to patients suffering an acute coronary syndrome event in order to reduce ischemia and thrombosis and improve blood flow. We expect that varespladib for the treatment of acute coronary syndrome patients, if approved, may compete with the following anti-inflammatory therapeutics in development.

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Compound	Stage	Company	Indications	Notes
Darapladib	Phase 3	GlaxoSmithKline plc	Acute coronary syndrome	Lp-PLA$_2$ Inhibitor Collaboration with Human Genome Sciences, Inc. Various back-up compounds
VIA-2291	Phase 2	Via Pharmaceuticals, Inc.	Acute coronary syndrome or atherosclerosis	5-lipoxygenase inhibitor Discussions on-going with FDA
E-5555	Phase 2	Eisai Inc.	Acute coronary syndrome or atherosclerosis	600 patient study completed October 2009 Thrombin receptor antagonist Evaluating biomarkers and events
VT-111(a)	Phase 2b	Viron	Acute coronary syndrome	SERPINS family glycoprotein Inhibits monocyte migration during vascular inflammation Phase 2a completed

Other Agents Under Development

Additionally, we are aware of other products in development that are being tested for anti-inflammatory benefits in patients with acute coronary syndrome such as Via Pharmaceuticals, Inc. and its 5-lipoxygenase, or 5-LO, inhibitor, which has been evaluated in Phase 2 clinical studies, GlaxoSmithKline plc and its product candidate, darapladib, which is an Lp-PLA$_2$ inhibitor currently being evaluated in Phase 3 clinical studies. If approved, these products or others in development may compete directly with varespladib.

Approved Categories of Drugs

Statins Treatment with varespladib is designed to offer anti-inflammatory benefits for acute coronary syndrome patients that are additive to treatment with statins. However, statin therapy is thought to confer some element of anti-inflammatory benefit as monotherapy. In certain circumstances, it is possible the anti-inflammatory benefits of statin monotherapy with products such as Lipitor (atorvastatin), which is marketed by Pfizer Inc., Crestor (rosuvastatin), which is marketed by AstraZeneca UK Limited and Zocor (simvastatin), which is marketed by Merck & Co., Inc. may be viewed as competitive to that offered by varespladib.

Other Lipid-Lowering Therapies Increasingly, additional lipid-lowering agents are being administered either in combination with statins or as monotherapy to help acute coronary syndrome patients reduce levels of LDL-C. Varespladib has demonstrated LDL-C lowering benefits when tested as monotherapy and in combination with statin therapy. To the extent acute coronary syndrome patients need additional LDL-C lowering, varespladib may compete for use with other approved agents such as Vytorin, which is a fixed dose combination therapy combining ezetimibe and Zocor, Tricor (fenofibrate tablets) and Niaspan (niacin), both of which are marketed by Abbott Laboratories, Zetia (ezetimibe) and fish oils (omega-3).

Lupus

Human Genome Sciences, Inc. s and partner GlaxoSmithKline plc s Benlysta is currently under review with the FDA and, if approved, would be the first novel therapy in the last fifty years. Current therapies such as non-steroidal anti-inflammatory drugs, or NSAIDs, corticosteroids and immunosuppressants generally act to hold back broadly the proliferation of many types of cells, including white blood cells. However, use of these agents is associated with significant adverse events and broad immune suppression.

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Several new biological agents under development have targeted BAFF (or BLyS) and other B-cell related pathways for the treatment of lupus. These product candidates include Benlysta (belimumab) from Human Genome Sciences, Inc., LY2127399 from Eli Lilly and Company, atacicept, or TACI-Ig, from ZymoGenetics Inc. and epratuzumab from Immunomedics, Inc., as well as others acting via non B-cell mechanisms, such as Lupuzor from Cephalon. We believe that A-623 may offer potential differentiation from these agents, including demonstrated dosing flexibility with both subcutaneous and intravenous delivery; selective modulation and reduction of relevant B-cell types in lupus patients; the ability to inhibit the activity of both membrane-bound and soluble BAFF; its smaller size as compared to a full antibody, which may confer differentiating pharmacokinetic and pharmacodynamic characteristics; and distinct patent protection based on a novel and proprietary technology developed and commercialized by Amgen, which may also confer potential manufacturing advantages with lower cost of goods based on a bacterial fermentation manufacturing process.

Compound	Stage	Company	Indications	Notes
Benlysta (intravenous and subcutaneous)	BLA Submission (PDUFA in March 2011)	Human Genome Sciences, Inc./ GlaxoSmithKline plc	Lupus	Monoclonal antibody against BAFF, an agent that demonstrated partial reduction in B-cells Inhibits soluble BAFF only Positive results reported in two Phase 3 clinical studies
LY2127399 (subcutaneous)	Phase 3	Eli Lilly and Company	Lupus, Rheumatoid Arthritis, Multiple Myelomas	Monoclonal antibody against BAFF inhibits soluble and membrane-bound BAFF Recent positive results in RA study
Atacicept (intravenous)	Phase 3	ZymoGenetics Inc./Merck Serono S.A.	Lupus	Fusion protein against BAFF and APRIL; Phase 3 clinical study in lupus on-going
Epratuzumab (intravenous)	Phase 3	Immunomedics, Inc./UCB S.A.	Lupus, Non-Hodgkin s Lymphoma	Humanized antibody against CD-22, an agent that specifically targets B-cells and leads to partial depletion of peripheral B-cells Initiating Phase 3 clinical

				study
Lupuzor (subcutaneous)	Phase 3	Cephalon, Inc./ ImmuPharma PLC	Lupus	Modulates CD 4 T cells Positive Phase 2b clinical study results reported

$sPLA_2$ for Acute Chest Syndrome Associated with Sickle Cell Disease

There are no currently approved agents for treatment or prophylaxis of acute chest syndrome associated with sickle cell disease. Droxia (hydroxyurea) is approved for prevention of VOC in sickle cell disease and thus could reduce the pool of patients with VOC at risk for acute chest syndrome. In addition, there is evidence in the literature that blood transfusions may prevent the occurrence of acute chest syndrome associated with sickle cell disease, and a randomized clinical study is underway by the National Heart, Lung and Blood Institute to explore this possibility.

Intellectual Property

Our policy is to pursue, maintain and defend patent rights, developed internally and licensed from third parties, to protect the technology, inventions and improvements that are commercially important to the development of our business. We also rely on trade secrets that may be important to the development of our business.

Our success will depend significantly on our ability to:

obtain and maintain patent and other proprietary protection for the technology, inventions and improvements we consider important to our business;

defend our patents;

preserve the confidentiality of our trade secrets; and

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operate our business without infringing the patents and proprietary rights of third parties.

Varespladib and A-001

As of the date of this report, our licensed varespladib and A-001 patent portfolio includes:

13 U.S. patents;

One pending U.S. non-provisional patent application;

Five European, or EP, patents, each validated in one or more of Austria, Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Liechtenstein, Luxembourg, the Netherlands, Portugal, Spain, Sweden, Switzerland and the United Kingdom;

One pending EP patent application;

20 non-EP foreign patents in Argentina, Australia, Brazil, Canada, China, Finland, India, Malaysia, Mexico, the Philippines, South Korea, Taiwan and Turkey; and

Three pending non-EP foreign patent applications in Brazil, Japan and Thailand.

We hold exclusive worldwide licenses from Eli Lilly and Shionogi & Co., Ltd. to all of these patents and patent applications with the exception of licensing rights in Japan, which Shionogi & Co., Ltd. retains. These licenses are described below under Licenses. The patents and applications described above contain claims directed to varespladib and A-001 compositions of matter and to various methods of making and using varespladib and A-001, including methods of treating various inflammatory conditions. The U.S. patents are currently scheduled to expire between 2014 and 2021. The primary U.S. composition of matter patent for varespladib and A-00l currently expires in August 2014. This patent is expected to be eligible for a Hatch-Waxman term restoration of up to five years, which could extend the expiration date to August 2019. We intend to pursue pediatric exclusivity as well, which could add an additional six months to the patent term. The primary European composition of matter patent currently expires in March 2015. This patent is expected to be eligible for a Supplementary Protection Certificate of up to five years, which could extend the expiration date to March 2020.

As of the date of this report, our internally developed varespladib and A-001 patent portfolio includes:

Four pending U.S. non-provisional patent applications;

Two pending U.S. provisional patent applications;

Two pending Patent Cooperation Treaty, or PCT, patent applications; and

National phase applications in the European Patent Office, the Eurasian Patent Organization and 17 other countries (Australia, Brazil, Canada, China, Hong Kong, India, Indonesia, Israel, Japan, Malaysia, Mexico, New Zealand, The Philippines, Singapore, South Africa, South Korea and Vietnam).

We own, and therefore hold all worldwide rights in and to, these patent applications, which contain claims directed to varespladib and A-001 compositions of matter and methods of treating various cardiovascular indications.

Several of the pending U.S. and non-U.S. patent applications include disclosure relating to the combination of varespladib and A-001 with various cardiovascular drugs, including statins. Pending claims in these applications are directed to both compositions of matter and methods. Any patents issuing from these applications would expire between 2028 and 2030.

A-003

As of the date of this report, our licensed A-003 patent portfolio includes:

Two U.S. patents;

One licensed pending U.S. non-provisional patent application (also listed above as covering varespladib and A-001);

Five EP patents (two also listed above as covering varespladib and A-001), each validated in one or more of Albania, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, the Netherlands, Portugal, Romania, Slovenia, Spain, Sweden, Switzerland and the United Kingdom;

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15 non-EP foreign patents (six also listed above as covering varespladib and A-001) in Argentina, Australia, Canada, China, India, Mexico, South Korea and Taiwan; and

One pending non-EP foreign patent application in Brazil (also listed above as covering varespladib and A-001).

We hold exclusive worldwide licenses from Eli Lilly and Shionogi & Co., Ltd. to these patents and patent applications with the exception of licensing rights in Japan, which Shionogi & Co., Ltd. retains. These licenses are described below under Licenses. The patents and applications listed above contain claims directed to A-003 compositions of matter and to various methods of making and using A-003, including methods of treating various inflammatory indications. The issued U.S. patents are currently scheduled to expire between 2017 and 2018.

As of the date of this report, our internally developed A-003 patent portfolio includes:

Three U.S. non-provisional patent applications (all also listed above as covering varespladib and A-001);

Two pending U.S. provisional patent applications (both also listed above as covering varespladib and A-001);

Two pending PCT patent applications (both also listed above as covering varespladib and A-001); and

National phase applications in the European Patent Office, the Eurasian Patent Organization and 17 other countries (Australia, Brazil, Canada, China, Hong Kong, India, Indonesia, Israel, Japan, Malaysia, Mexico, New Zealand, The Philippines, Singapore, South Africa, South Korea and Vietnam).

We own, and therefore hold all worldwide rights in and to, these patent applications, which contain claims directed to A-003 compositions of matter and methods of treating various cardiovascular indications.

New $sPLA_2$ Compounds

As of the date of this report, our new $sPLA_2$ compound patent portfolio includes over 30 licensed U.S. patents, one pending U.S. non-provisional patent application, three EP patents, one pending EP patent application, four non-EP foreign patents, and one pending non-EP foreign patent application not listed above as covering A-001, varespladib or A-003. We hold exclusive worldwide licenses from Eli Lilly and Shionogi & Co., Ltd. to these patents and patent applications with the exception of licensing rights in Japan, which Shionogi & Co., Ltd. retains. These licenses are described below under Licenses. The patents and applications listed above contain claims directed to various $sPLA_2$ second generation compounds, as well as methods of making and using these new $sPLA_2$ compounds. The issued U.S. patents are currently scheduled to expire between 2013 and 2024.

A-623

As of the date of this report, our A-623 patent portfolio includes:

Two U.S. patents;

One pending U.S. non-provisional patent application;

One EP patent validated in Albania, Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Monaco, the Netherlands, Portugal, Romania, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom;

Two pending EP patent applications;

Eleven non-EP foreign patents in Australia, China, Estonia, Eurasia (validated in all nine Eurasian countries), Japan, New Zealand, the Philippines, Singapore, South Korea and South Africa; and

13 pending non-EP foreign patent applications in Brazil, Bulgaria, Canada, China, the Czech Republic, Hong Kong, Hungary, Israel, Mexico, Norway, Poland, Serbia and Slovakia.

We hold exclusive worldwide licenses from Amgen to all of these patents and patent applications. In addition, we hold a non-exclusive worldwide license to one pending U.S. non-provisional patent application, one EP patent, one pending EP patent application, ten non-EP foreign patents, and over 30 pending non-EP foreign patent applications relating to general peptibody compositions and formulations.

The U.S. patents are currently scheduled to expire in May 2022. One of the U.S. patents is expected to be eligible for a Hatch-Waxman term restoration of up to five years, which could extend the expiration date to May

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2027. We intend to pursue pediatric exclusivity as well, which could add an additional six months to the patent term. The European patent is currently scheduled to expire May 2022. This patent is expected to be eligible for a Supplementary Protection Certificate of up to five years, which could extend the expiration date to May 2027.

The U.S. patent system permits the filing of provisional and non-provisional patent applications. A non-provisional patent application is examined by the U.S. Patent Office, or USPTO, and can mature into a patent once the USPTO determines that the claimed invention meets the standards for patentability. A provisional patent application is not examined, and automatically expires 12 months after its filing date. As a result, a provisional patent application cannot mature into a patent. The requirements for filing a provisional patent application are not as strict as those for filing a non-provisional patent application. Provisional applications are often used, among other things, to establish an early filing date for a subsequent non-provisional patent application.

The filing date of a non-provisional patent application is used by the USPTO to determine what information is prior art when it considers the patentability of a claimed invention. If certain requirements are satisfied, a non-provisional patent application can claim the benefit of the filing date of an earlier filed provisional patent application. As a result, the filing date accorded by the provisional patent application may remove information that otherwise could preclude the patentability of an invention.

Depending upon the timing, duration and specifics of FDA approval of varespladib, A-623, A-001, A-003 or one or more new $sPLA_2$ compounds, one or more of the U.S. patents listed above may be eligible for limited patent term restoration under the Drug Price Competition and Patent Term Restoration Act of 1984, commonly referred to as the Hatch-Waxman Act. See Regulatory Matters Patent Term Restoration and Marketing Exclusivity.

A-101

A-101 is novel compound developed to treat cardiovascular disease.

As of the date of this report, our internally developed A-101 patent portfolio includes:

One pending U.S. non-provisional patent application.

We own, and therefore hold all worldwide rights in and to, the patent application, which contains claims directed to A-101 compositions of matter and methods of treating various cardiovascular indications.

Licenses

Eli Lilly and Shionogi & Co., Ltd.

In July 2006, we entered into a license agreement with Eli Lilly and Shionogi & Co., Ltd., pursuant to which we obtained an exclusive license in all countries except for Japan to certain technology and compounds relating to $sPLA_2$ inhibitors. The licensed technology was largely developed under a research and development agreement between Eli Lilly and Shionogi & Co., Ltd., which was entered into between the parties in August 1992 and terminated in December 2004.

Under the agreement, we obtained exclusive rights to (i) use licensed patent rights and know-how to identify and develop $sPLA_2$ inhibitors, (ii) develop, make, have made, use, import, offer for sale and sell licensed compounds and pharmaceutical formulations thereof, including varespladib, A-001, A-003 and other $sPLA_2$ inhibitors and (iii) grant sublicenses. The licensed patent rights include a specific set of previously filed U.S. and foreign patents and applications, as well as any applications filed after the execution date by Eli Lilly or Shionogi & Co., Ltd. that relate

to licensed know-how. Certain patents and applications within the licensed patent rights are defined as core patents. Although the agreement does not allow us to sell or offer for sale licensed products in Japan, it does allow us to conduct preclinical and clinical studies in Japan in support of applications for marketing authorization outside of Japan, and to make and have made licensed products in Japan for use or sale outside of Japan. Eli Lilly and Shionogi & Co., Ltd. retain the right to use licensed products for research purposes only. Eli Lilly also retains the right to conduct studies of specific compounds in animals for research purposes, but only with our prior written approval. In addition, Shionogi & Co., Ltd. retains the non-exclusive right to make and have made licensed products for supply to us, as well as its rights to continue research, development and marketing of licensed technology in Japan.

Upon entering into the license agreement, we assumed control of all prosecution and maintenance of core patents prosecuted and maintained by Eli Lilly prior to the agreement. All core patents prosecuted and maintained

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by Shionogi & Co., Ltd. prior to the agreement remained under the control of Shionogi & Co., Ltd. Licensed patent rights that were not classified as core remained under the control of Eli Lilly and Shionogi & Co., Ltd. However, control of certain of these patents and applications has since been transferred to us following the decision by Eli Lilly or Shionogi & Co., Ltd. to discontinue prosecution and maintenance.

Upon entering into the license agreement, we made one-time payments of cash in the amount of $250,000 and issued shares of convertible preferred stock with a total aggregate value of $2.3 million to Eli Lilly and Shionogi & Co., Ltd. We are required to make various milestone payments and to pay tiered royalty payments on net sales, which increase as a percentage as net sales increase. Both the milestone and royalty payment schedules vary depending on the specific formulation (e.g., oral versus intravenously administered). For varespladib, we are required to pay up to $32.0 million upon achievement of certain approval and post-approval sales milestones. For A-001, we are required to pay up to $3.0 million upon achievement of certain clinical development milestones and up to $25.0 million upon achievement of certain approval and post-approval sales milestones. For other product formulations that we are not currently developing, we would be required to pay up to $2.0 million upon achievement of certain clinical development milestones and up to $35.5 million upon achievement of certain approval and post-approval sales milestones. Our royalty payments vary based upon type of formulation and annual net sales, but generally range from the mid-single digits to the low double digits. Our royalty payment obligations for a particular licensed product in a particular country begin on the date of the first commercial sale of the licensed product in that country, and end upon the later of 10 years from the date of first commercial sale in that country or the first date on which a generic version of the licensed product reaches a 25% total market share in that country.

The license agreement will remain in effect for the length of our royalty obligation on a product-by-product and country-by-country basis, unless we elect to terminate earlier or until termination by mutual agreement. Upon expiration of the agreement, our license will remain in effect and will convert to an irrevocable, perpetual royalty-free license. If we fail to meet our obligations under the agreement, Eli Lilly or Shionogi & Co., Ltd. can terminate the agreement, resulting in a loss of our exclusive rights to the licensed technology.

Amgen

In December 2007, we entered into a license agreement with Amgen, which was amended in October 2009, pursuant to which we obtained an exclusive worldwide license to certain technology and compounds relating to A-623, as well as a non-exclusive worldwide license to technology relating to certain peptibody compositions of matter and formulations.

Under the agreement, we obtained exclusive rights under the licensed patents and know-how to research, develop, make, have made, use, sell, offer for sale and import pharmaceutical products containing A-623, as well as the right to grant sublicenses. The licensed patents included a specific set of previously filed U.S. and foreign patents and applications, as well as any applications filed after the execution date by Amgen and covering licensed know-how. During the period of the agreement, we are responsible for the filing, prosecution, defense and maintenance of all exclusively licensed A-623 patents and applications. Amgen retains the right to review all documents relating to said filing, prosecution, defense and maintenance, and we are required to incorporate all reasonable comments or suggestions that Amgen makes with regard to these documents.

During the seven-year period after execution of the agreement, Amgen is prohibited from clinically developing or commercializing any BAFF peptibody. Similarly, we are prohibited during the term of the agreement from clinically developing or commercializing any molecule other than A-623 that modulates BAFF as the primary intended therapeutic mechanism of action.

We paid a first installment fee of $3.0 million and a second installment fee of $3.0 million. In addition, we are required to make various milestone payments upon the achievement of certain development, regulatory and commercial objectives, including payment upon initiation of the first Phase 3 clinical study for any A-623 formulation. We are also required to pay up to $10.0 million upon achievement of certain pre-approval clinical development milestones and up to $23.0 million upon achievement of certain post- approval milestones. Furthermore, we are required to make tiered quarterly royalty payments on net sales, which increase as a percentage from the high single digits to the low double digits as net sales increase. Our royalty payment obligations for a particular product in a particular country begin on the date of the first commercial sale of the licensed product in that country,

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and end upon the later of 10 years from the date of first commercial sale in that country or the expiration date of the last valid claim of a licensed patent that covers the manufacture, use or sale, offer to sell or import of the product.

The license agreement will remain in effect until we elect to terminate, or until termination for material breach by either party or insolvency on our part. Under these terms, Amgen can terminate the agreement if we fail to meet our obligations, resulting in a loss of our exclusive rights to the licensed technology.

Manufacturing and Supply

We currently rely on contract manufacturers to produce drug substances and drug products required for our clinical studies under cGMP with oversight by our internal managers. We plan to continue to rely upon contract manufacturers and, potentially, collaboration partners to manufacture commercial quantities of our product candidates if and when approved for marketing by the FDA. Should a supplier or a manufacturer on which we have relied to produce a product candidate provide us with a faulty product or such product is later recalled, we would likely experience significant delays and material additional costs.

Sales and Marketing

Given our stage of development, we have not developed a commercial organization or distribution capabilities. We expect that we would develop these capabilities once we receive Phase 3 data in contemplation of FDA approval and the commercial launch of our product candidates. In order to commercialize any of our product candidates, we must develop these capabilities internally or through collaboration with third parties. In selected therapeutic areas where we feel that any approved products can be commercialized by a specialty sales force that calls on a limited and focused group of physicians, acute care and orphan indications such as acute coronary syndrome and acute chest syndrome associated with sickle cell disease, we may seek to commercialize these product candidates alone. In therapeutic areas that require a large sales force selling to a large and diverse prescribing population, such as chronic indications such as CAD, we currently plan to partner with third parties to commercialize our product candidates while retaining rights to co-promote our products to a select audience of high prescribing physicians in the United States, thereby supplementing or enhancing the efforts of a commercial partner. We also plan to seek commercialization partners for products in non-specialty and international markets.

In North America and Western Europe, patients in the target markets for our product candidates are largely managed by medical specialists in the areas of cardiology and internal medicine. Historically, companies have experienced substantial commercial success through the deployment of specialized sales forces that can address a majority of key prescribers, particularly within the cardiovascular disease marketplace. Therefore, we expect to utilize a specialized sales force in North America for the sales and marketing of product candidates that we may successfully develop. Based upon sales models, we estimate that we could effectively promote (supplementing a commercial partner s sales efforts) the treatment of acute coronary syndrome to 3,000 cardiologists with approximately 300 sales representatives in North America and Western Europe. If we obtain additional label indications for varespladib or A-001, we may choose to increase our sales force size to promote these new uses. Due to their concentrated and focused nature, specialty target audiences may be reached with more focused and cost-effective marketing campaigns. Outside of North America, and in situations or markets where a more favorable return may be realized through licensing commercial rights to a third party, we may license a portion or all of our commercial rights in a territory to a third party in exchange for one or more of the following: up-front payments, research funding, development funding, milestone payments and royalties on drug sales.

We intend to build the commercial infrastructure necessary to bring varespladib, A-623 and A-001 to market alone or in collaboration with a co-development or co-promotion partner. In addition to a specialty sales force, sales management, internal sales support and an internal marketing group, we will need to establish capabilities to manage

key accounts, such as managed care organizations, group-purchasing organizations, specialty pharmacies and government accounts. We may also choose to employ medical sales liaisons personnel to support the product.

Regulatory Matters

Government Regulation and Product Approval

Government authorities in the United States at the federal, state and local level and other countries, extensively regulate, among other things, the research, development, testing, manufacture, quality control, approval, labeling, packaging, storage, record-keeping, promotion, advertising, distribution, marketing, export and import of products

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such as those we are developing. Our product candidates must be approved by the FDA through the new drug application, or NDA, process, and our biological product candidate, A-623, must be approved by the FDA through the biologics license application, or BLA, process before they may legally be marketed in the United States.

United States Drug Development Process

In the United States, the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act, or FDCA, and implementing regulations and biological products under both the FDCA and the Public Health Service Act, or the PHSA, and implementing regulations. The process of obtaining regulatory approvals and compliance with appropriate federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources. Failure to comply with the applicable U.S. 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 FDA s refusal to approve pending applications, withdrawal of an approval, a clinical hold, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement or civil or criminal penalties. The process required by the FDA before a drug or biological product may be marketed in the United States generally involves the following:

- completion of preclinical laboratory tests, animal studies and formulation studies according to Good Laboratory Practices regulations;
- submission to the FDA of an IND, which must become effective before human clinical studies may begin;
- performance of adequate and well-controlled human clinical studies according to Good Clinical Practices, or GCP, to establish the safety and efficacy of the proposed drug or biological product for its intended use;
- submission to the FDA of an NDA for a new drug or BLA for a biological product;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the drug or biological product is produced to assess compliance with cGMP; and
- FDA review and approval of the NDA or BLA.

The testing and approval process requires substantial time, effort and financial resources and we cannot be certain that any approvals for our product candidates will be granted on a timely basis, if at all.

Once a pharmaceutical or biological product candidate is identified for development, it enters the preclinical testing stage. Preclinical tests include laboratory evaluations of product chemistry, toxicity, formulation and stability, as well as animal studies to assess its potential safety and efficacy. An IND sponsor must submit the results of the preclinical tests, together with manufacturing information, analytical data and any available clinical data or literature, to the FDA as part of the IND. The sponsor will also include a protocol detailing, among other things, the objectives of the initial clinical study, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated if the initial clinical study lends itself to an efficacy evaluation. Some preclinical testing may continue even after the IND is submitted. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA places the clinical study on a clinical hold within that 30-day time period. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical study can begin. Clinical holds may also be imposed by the FDA at any time before or during clinical studies due to safety concerns or non-compliance.

All clinical studies must be conducted under the supervision of one or more qualified investigators in accordance with GCP regulations. These regulations include the requirement that all research subjects provide informed consent. Further, an institutional review board, or IRB, must review and approve the plan for any clinical study before it commences at any institution. An IRB considers, among other things, whether the risks to individuals participating in the studies are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the information regarding the clinical study and the consent form that must be provided to each clinical study subject or to his or her legal representative and must monitor the clinical study until completed.

Each new clinical protocol and any amendments to the protocol must be submitted to the FDA for review, and to the IRBs for approval. Protocols detail, among other things, the objectives of the clinical study, dosing procedures, subject selection and exclusion criteria, and the parameters to be used to monitor subject safety.

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Human clinical studies are typically conducted in three sequential phases that may overlap or be combined:

Phase 1. The product is initially introduced into healthy human subjects and tested for safety, dosage tolerance, absorption, metabolism, distribution and excretion. In the case of some products for severe or life-threatening diseases, especially when the product may be too inherently toxic to ethically administer to healthy volunteers, the initial human testing is often conducted in patients.

Phase 2. Involves studies in a limited patient population to identify possible adverse effects and safety risks to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance and optimal dosage and schedule.

Phase 3. Clinical studies are undertaken to further evaluate dosage, clinical efficacy and safety in an expanded patient population at geographically dispersed clinical study sites. These studies are intended to establish the overall risk/benefit ratio of the product and provide an adequate basis for product labeling.

Progress reports detailing the results of the clinical studies must be submitted at least annually to the FDA and safety reports must be submitted to the FDA and the investigators for serious and unexpected adverse events. Phase 1, Phase 2 and Phase 3 testing may not be completed successfully within any specified period, if at all. The FDA or the sponsor may suspend or terminate a clinical study at any time on various grounds, including a finding that the research subjects or patients are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical study at its institution if the clinical study is not being conducted in accordance with the IRB s requirements or if the drug or biological product has been associated with unexpected serious harm to patients.

Concurrent with clinical studies, companies usually complete additional animal studies and must also develop additional information about the chemistry and physical characteristics of the product and finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the product candidate and, among other things, the manufacturer must develop methods for testing the identity, strength, quality and purity of the final product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the product candidate does not undergo unacceptable deterioration over its shelf life.

U.S. Review and Approval Processes

The results of product development, preclinical studies and clinical studies, along with descriptions of the manufacturing process, analytical tests conducted on the drug or biological product, proposed labeling and other relevant information, are submitted to the FDA as part of an NDA for a new drug or BLA for a biological product, requesting approval to market the product. The submission of an NDA or BLA is subject to the payment of a substantial user fee; a waiver of such fee may be obtained under certain limited circumstances.

In addition, under the Pediatric Research Equity Act of 2003, or PREA, which was reauthorized under the Food and Drug Administration Amendments Act of 2007, an NDA or BLA or supplement to an NDA or BLA must contain data to assess the safety and effectiveness of the drug or biological product for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The FDA may grant deferrals for submission of data or full or partial waivers. Unless otherwise required by regulation, PREA does not apply to any drug or biological product for an indication for which orphan designation has been granted.

The FDA reviews all NDAs and BLAs submitted to ensure that they are sufficiently complete for substantive review before it accepts them for filing. The FDA may request additional information rather than accept a NDA or BLA for

filing. In this event, the NDA or BLA must be re-submitted with the additional information. The re-submitted application is also subject to review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review. The FDA reviews an NDA to determine, among other things, whether a product is safe and effective for its intended use and whether its manufacturing is cGMP-compliant to assure and preserve the product s identity, strength, quality and purity. The FDA reviews a BLA to determine, among other things, whether the product is safe, has an acceptable purity profile and is adequately potent, and whether its manufacturing meets standards designed to assure the product s continued identity, sterility, safety, purity and potency. Before approving an NDA or BLA, the FDA will inspect the facility or facilities where the product is manufactured. The FDA will not approve an application unless it determines that the manufacturing

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processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. The FDA may refer the NDA or BLA to an advisory committee for review, evaluation and recommendation as to whether the application should be approved and under what conditions. An advisory committee is a panel of experts who provide advice and recommendations when requested by the FDA on matters of importance that come before the agency. The FDA is not bound by the recommendation of an advisory committee but it generally follows such recommendations.

The approval process is lengthy and difficult and the FDA may refuse to approve an NDA or BLA if the applicable regulatory criteria are not satisfied or may require additional clinical data or other data and information. Even if such data and information is submitted, the FDA may ultimately decide that the NDA or BLA does not satisfy the criteria for approval. Data obtained from clinical studies are not always conclusive and the FDA may interpret data differently than we interpret the same data. The FDA will issue a complete response letter if the agency decides not to approve the NDA or BLA in its present form. The complete response letter usually describes all of the specific deficiencies in the NDA or BLA identified by the FDA. The deficiencies identified may be minor, for example, requiring labeling changes, or major, for example, requiring additional clinical studies. Additionally, the complete response letter may include recommended actions that the applicant might take to place the application in a condition for approval. If a complete response letter is issued, the applicant may either resubmit the NDA or BLA, addressing all of the deficiencies identified in the letter, or withdraw the application

If a product receives regulatory approval, the approval may be significantly limited to specific diseases and dosages or the indications for use may otherwise be limited, which could restrict the commercial value of the product. Further, the FDA may require that certain contraindications, warnings or precautions be included in the product labeling. In addition, the FDA may require Phase 4 testing which involves clinical studies designed to further assess a drug or biological product s safety and effectiveness after NDA or BLA approval and may require testing and surveillance programs to monitor the safety of approved products that have been commercialized.

Patent Term Restoration and Marketing Exclusivity

Depending upon the timing, duration and specifics of FDA approval of the use of our product candidates, some of our U.S. patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, commonly referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent restoration term of up to five years as compensation for patent term lost during the FDA regulatory review process. However, patent term restoration cannot extend the remaining term of a patent beyond a total of 14 years from the product s approval date. The patent term restoration period is generally one-half the time between the effective date of an IND and the submission date of an NDA plus the time between the submission date of an NDA and the approval of that application. Only one patent applicable to an approved drug is eligible for the extension and the application for the extension must be submitted prior to the expiration of the patent. The USPTO, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration. In the future, we intend to apply for restorations of patent terms for some of our currently owned or licensed patents to add patent life beyond their current expiration dates, depending on the expected length of the clinical studies and other factors involved in the filing of the relevant NDA.

Market exclusivity provisions under the FDCA can also delay the submission or the approval of certain competitor applications. The FDCA provides a five-year period of non-patent marketing exclusivity within the United States to the first applicant to gain approval of an NDA for a new chemical entity. A drug is a new chemical entity if the FDA has not previously approved any other new drug containing the same active moiety, which is the molecule or ion responsible for the action of the drug substance. During the exclusivity period, the FDA may not accept for review an abbreviated new drug application, or ANDA, or a 505(b)(2) NDA submitted by another company for another version of such drug where the applicant does not own or have a legal right of reference to all the data required for approval.

However, an application may be submitted after four years if it contains a certification of patent invalidity or non-infringement. The FDCA also provides three years of marketing exclusivity for an NDA, 505(b)(2) NDA or supplement to an existing NDA if new clinical investigations, other than bioavailability studies, that were conducted or sponsored by the applicant are deemed by the FDA to be essential to the approval of the application, for example new indications, dosages or strengths of an existing drug. This three-year exclusivity covers only the conditions associated with the new clinical investigations and does not prohibit the FDA from approving ANDAs for drugs containing the original active agent. Five-year and three-year exclusivity

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will not delay the submission or approval of a full NDA. However, an applicant submitting a full NDA would be required to conduct or obtain a right of reference to all of the preclinical studies and adequate and well-controlled clinical studies necessary to demonstrate safety and effectiveness. HR 3590 provides 12 years of data exclusivity for innovator biologics. During this exclusivity period, competitors are barred from relying on the innovator s safety and efficacy data to gain FDA approval. Therefore, a competitor seeking to obtain marketing approval during this exclusivity period would be required to conduct its own preclinical and clinical studies.

Pediatric exclusivity is another type of exclusivity in the United States. Pediatric exclusivity, if granted, adds an additional six months to an existing exclusivity or statutory delay in approval resulting from a patent certification. This six-month exclusivity, which runs from the end of other exclusivity protection or patent delay, may be granted based on the voluntary completion of a pediatric study in accordance with an FDA-issued Written Request for such a study. The current pediatric exclusivity provision was reauthorized in September 2007.

Orphan Drug Designation

Under the Orphan Drug Act, the FDA may grant orphan designation to a drug or biological product intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the United States, or more than 200,000 individuals in the United States and for which there is no reasonable expectation that the cost of developing and making a drug or biological product available in the United States for this type of disease or condition will be recovered from sales of the product. Orphan product designation must be requested before submitting an NDA or BLA. After the FDA grants orphan product designation, the identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. Orphan product designation does not convey any advantage in or shorten the duration of the regulatory review and approval process.

If a product that has orphan designation subsequently receives the first FDA approval for the disease or condition for which it has such designation, the product is entitled to orphan product exclusivity, which means that the FDA may not approve any other applications to market the same drug or biological product for the same indication, except in very limited circumstances, for seven years. Competitors, however, may receive approval of different products for the indication for which the orphan product has exclusivity or obtain approval for the same product, but for a different indication for which the orphan product has exclusivity. Orphan product exclusivity could also block the approval of one of our products for seven years if a competitor obtains approval of the same drug or biological product as defined by the FDA or if our product candidate is determined to be contained within the competitor s product for the same indication or disease. If a drug or biological product designated as an orphan product receives marketing approval for an indication broader than what is designated, it may not be entitled to orphan product exclusivity.

The FDA also administers a clinical research grants program, whereby researchers may compete for funding to conduct clinical studies to support the approval of drugs, biologics, medical devices and medical foods for rare diseases and conditions. A product does not have to be designated as an orphan product to be eligible for the grant program. An application for an orphan grant should propose one discrete clinical study to facilitate FDA approval of the product for a rare disease or condition. The clinical study may address an unapproved new product or an unapproved new use for a product already on the market.

Expedited Development and Review Programs

The FDA has a fast track program that is intended to expedite or facilitate the process for reviewing new drugs and biological products that meet certain criteria. Specifically, new drugs and biological products are eligible for fast track designation if they are intended to treat a serious or life-threatening condition and demonstrate the potential to address unmet medical needs for the condition. Fast track designation applies to the combination of the product and the specific indication for which it is being studied. For a fast track product, the FDA may consider for review on a rolling

basis sections of the NDA or BLA before the complete application is submitted, if the sponsor provides a schedule for the submission of the sections of the NDA or BLA, the FDA agrees to accept sections of the NDA or BLA and determines that the schedule is acceptable, and the sponsor pays any required user fees upon submission of the first section of the NDA or BLA.

A fast track product may also be eligible for other types of FDA programs intended to expedite development and review, such as priority review and accelerated approval. A fast track product is eligible for priority review if it has the potential to provide safe and effective therapy where no satisfactory alternative therapy exists or a

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significant improvement in the treatment, diagnosis or prevention of a disease compared to marketed products. The FDA will attempt to direct additional resources to the evaluation of an application for a new drug or biological product designated for priority review in an effort to facilitate the review. Additionally, a fast track product may be eligible for accelerated approval. Drug or biological products studied for their safety and effectiveness in treating serious or life-threatening illnesses and that provide meaningful therapeutic benefit over existing treatments may receive accelerated approval, which means that they may be approved on the basis of adequate and well-controlled clinical studies establishing that the product has an effect on a surrogate endpoint that is reasonably likely to predict a clinical benefit, or on the basis of an effect on a clinical endpoint other than survival or irreversible morbidity. As a condition of approval, the FDA may require that a sponsor of a drug or biological product receiving accelerated approval perform adequate and well-controlled post-marketing clinical studies. Fast track designation, priority review and accelerated approval do not change the standards for approval but may expedite the development or approval process.

We have been granted fast track designation for our product candidate, A-001, for the prevention of acute chest syndrome associated with sickle cell disease in at-risk patients. Even though we have received fast track designation for A-001, the FDA may later decide that A-001 no longer meets the conditions for qualification. In addition, obtaining fast track designation may not provide us with a material commercial advantage.

Post-Approval Requirements

Any drug or biological products for which we receive FDA approvals are subject to continuing regulation by the FDA, including, among other things, record-keeping requirements, reporting of adverse experiences with the product, providing the FDA with updated safety and efficacy information, product sampling and distribution requirements, complying with certain electronic records and signature requirements and complying with FDA promotion and advertising requirements. The FDA strictly regulates labeling, advertising, promotion and other types of information on products that are placed on the market. Drugs and biological products may be promoted only for the approved indications and in accordance with the provisions of the approved label. Further, manufacturers of drugs and biological products must continue to comply with cGMP requirements, which are extensive and require considerable time, resources and ongoing investment to ensure compliance. In addition, changes to the manufacturing process generally require prior FDA approval before being implemented and other types of changes to the approved product, such as adding new indications and additional labeling claims, are also subject to further FDA review and approval.

Drug and biological product manufacturers and other entities involved in the manufacturing and distribution of approved drugs or biological products are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMP and other laws. The cGMP requirements apply to all stages of the manufacturing process, including the production, processing, sterilization, packaging, labeling, storage and shipment of the drug or biological product. Manufacturers must establish validated systems to ensure that products meet specifications and regulatory standards, and test each product batch or lot prior to its release.

Manufacturers of biological products must also report to the FDA any deviations from cGMP that may affect the safety, purity or potency of a distributed product; or any unexpected or unforeseeable event that may affect the safety, purity or potency of a distributed product. The regulations also require investigation and correction of any deviations from cGMP and impose documentation requirements.

We rely, and expect to continue to rely, on third parties for the production of clinical and commercial quantities of our products. Future FDA and state inspections may identify compliance issues at the facilities of our contract manufacturers that may disrupt production or distribution or may require substantial resources to correct.

The FDA may withdraw a product approval if compliance with regulatory standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product may result in restrictions on the product or even complete withdrawal of the product from the market. Further, the failure to maintain compliance with regulatory requirements may result in administrative or judicial actions, such as fines, warning letters, holds on clinical studies, product recalls or seizures, product detention or refusal to permit the import or export of products, refusal to approve pending applications or supplements, restrictions on marketing or manufacturing, injunctions or civil or criminal penalties.

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In addition, from time to time, legislation is drafted, introduced and passed in Congress that could significantly change the statutory provisions governing the approval, manufacturing and marketing of products regulated by the FDA. For example, in September 2007, the Food and Drug Administration Amendments Act of 2007 was enacted, giving the FDA enhanced post-market authority, including the authority to require post-market studies and clinical studies, labeling changes based on new safety information and compliance with a risk evaluation and mitigation strategy, or REMS, approved by the FDA. In determining whether a REMS is necessary, the FDA must consider the size of the population likely to use the drug or biological product, the seriousness of the disease or condition to be treated, the expected benefit of the product, the duration of treatment, the seriousness of known or potential adverse events for varespladib and whether the product is a new molecular entity. We have submitted a REMS as an appendix to the SPA. If the FDA determines our REMS is necessary, we must submit a REMS plan as part of an NDA or BLA. The FDA may require that a REMS include various elements, such as a medication guide, patient package insert, a communication plan to educate health care providers, limitations on who may prescribe or dispense the product, or other measures.

Failure to comply with any requirements under the new law may result in significant penalties. The new law also authorizes significant civil money penalties for the dissemination of false or misleading direct-to-consumer advertisements and allows the FDA to require companies to submit direct-to-consumer television drug advertisements for FDA review prior to public dissemination. Additionally, the new law expands the clinical study registry so that sponsors of all clinical studies, except for Phase 1 clinical studies, are required to submit certain clinical study information for inclusion in the clinical study registry data bank. In addition to new legislation, the FDA regulations and policies are often revised or reinterpreted by the agency in ways that may significantly affect our business and our products. It is impossible to predict whether further legislative or FDA regulation or policy changes will be enacted or implemented and what the impact of such changes, if any, may be.

Foreign Regulation

In addition to regulations in the United States, we will be subject to a variety of foreign regulations governing clinical studies and commercial sales and distribution of our products to the extent we choose to sell any products outside of the United States. Whether or not we obtain FDA approval for a product, we must obtain approval of a product by the comparable regulatory authorities of foreign countries before we can commence clinical studies or marketing of the product in those countries. The approval process varies from country to country and the time may be longer or shorter than that required for FDA approval. The requirements governing the conduct of clinical studies, product licensing, pricing and reimbursement vary greatly from country to country.

In the European Union, our products are subject to extensive regulatory requirements, which provide, among other things, that no medicinal product may be placed on the market of a European Union member state unless a marketing authorization has been issued by the European Medicines Agency or a national competent authority. European Union member states require both regulatory clearance by the national competent authority and a favorable ethics committee opinion prior to the commencement of a clinical study.

Under the European Union regulatory systems, we may submit marketing authorization applications either under a centralized or decentralized procedure. The centralized procedure provides for the grant of a single marketing authorization that is valid for all European Union member states. The centralized procedure is compulsory for medicines produced by certain biotechnological processes, products with a new active substance indicated for the treatment of certain diseases such as neurodegenerative disorder or diabetes and products designated as orphan medicinal products, and optional for those products which are highly innovative or for which a centralized process is in the interest of patients. The decentralized procedure of approval provides for approval by one or more other, or concerned, member states of an assessment of an application performed by one member state, known as the reference member state. Under the decentralized approval procedure, an applicant submits an application, or dossier, and related

materials (draft summary of product characteristics, draft labeling and package leaflet) to the reference member state and concerned member states. The reference member state prepares a draft assessment and drafts of the related materials within 120 days after receipt of a valid application. Within 90 days of receiving the reference member state s assessment report, each concerned member state must decide whether to approve the assessment report and related materials. If a member state cannot approve the assessment report and related materials on the grounds of potential serious risk to public health, the disputed points may eventually be referred to the European Commission, whose decision is binding on all member states.

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Reimbursement

Sales of pharmaceutical products depend significantly on the availability of third-party reimbursement. Third-party payors include government health administrative authorities, including at the federal and state level, managed care providers, private health insurers and other organizations. We anticipate third-party payors will provide reimbursement for our products. However, these third-party payors are increasingly challenging the price and examining the cost-effectiveness of medical products and services. In addition, significant uncertainty exists as to the reimbursement status of newly approved health care products. We may need to conduct expensive pharmacoeconomic studies in order to demonstrate the cost-effectiveness of our products. Our product candidates may not be considered cost-effective. It is time consuming and expensive for us to seek reimbursement from third-party payors. Reimbursement may not be available or sufficient to allow us to sell our products on a competitive and profitable basis.

In addition, the U.S. Congress and state legislatures from time to time propose and adopt initiatives aimed at cost containment, which could impact our ability to sell our products profitably. For example, in March 2010, President Obama signed into law the Patient Protection and Affordable Care Act, and the associated reconciliation bill, which we refer to collectively as the Health Care Reform Law, a sweeping law intended to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for healthcare and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms. Effective October 1, 2010, the Health Care Reform Law revises the definition of average manufacturer price for reporting purposes, which could increase the amount of Medicaid drug rebates to states once the provision is effective. Further, beginning in 2011, the new law imposes a significant annual fee on companies that manufacture or import certain branded prescription drug products and biologic agents. Substantial new provisions affecting compliance also have been enacted, which may require us to modify our business practices with healthcare practitioners. We will not know the full effects of the Health Care Reform Law until applicable federal and state agencies issue regulations or guidance under the new law. Although it is too early to determine the effect of the Health Care Reform Law, the new law appears likely to continue the pressure on pharmaceutical pricing, especially under the Medicare program, and also may increase our regulatory burdens and operating costs.

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the MMA, imposed new requirements for the distribution and pricing of prescription drugs for Medicare beneficiaries, and included a major expansion of the prescription drug benefit under a new Medicare Part D. Medicare Part D went into effect on January 1, 2006. Under Part D, Medicare beneficiaries may enroll in prescription drug plans offered by private entities which will provide coverage of outpatient prescription drugs. Part D plans include both stand-alone prescription drug benefit plans and prescription drug coverage as a supplement to Medicare Advantage plans. Unlike Medicare Part A and B, Part D coverage is not standardized. Part D prescription drug plan sponsors are not required to pay for all covered Part D drugs, and each drug plan can develop its own drug formulary that identifies which drugs it will cover and at what tier or level. However, Part D prescription drug formularies must include drugs within each therapeutic category and class of covered Part D drugs, though not necessarily all the drugs in each category or class. Any formulary used by a Part D prescription drug plan must be developed and reviewed by a pharmacy and therapeutic committee.

It is not clear what effect the MMA will have on the prices paid for currently approved drugs and the pricing options for new drugs approved after January 1, 2006. Government payment for some of the costs of prescription drugs may increase demand for products for which we receive marketing approval. However, any negotiated prices for our products covered by a Part D prescription drug plan will likely be lower than the prices we might otherwise obtain. Moreover, while the MMA applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own payment rates. Any reduction in payment that

results from the MMA may result in a similar reduction in payments from non-governmental payors.

There are also laws that govern a company s eligibility to participate in Medicare and Medicaid reimbursements. For example, a company may be debarred from participation if it is found to have violated federal anti-kickback laws, which could have a significant effect on a company s ability to operate its business.

The cost of pharmaceuticals continues to generate substantial governmental and third-party payor interest. We expect that the pharmaceutical industry will experience pricing pressures due to the trend toward managed

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healthcare, the increasing influence of managed care organizations, and additional legislative proposals. Indeed, we expect that there will continue to be a number of federal and state proposals to implement governmental pricing controls and limit the growth of healthcare costs, including the cost of prescription drugs. At the present time, Medicare is prohibited from negotiating directly with pharmaceutical companies for drugs. However, Congress is considering passing legislation that would lift the ban on federal negotiations. While we cannot predict whether such legislative or regulatory proposals will be adopted, the adoption of such proposals could harm our business, financial condition and results of operations.

Some third-party payors also require pre-approval of coverage for new or innovative drug therapies before they will reimburse healthcare providers that use such therapies. While we cannot predict whether any proposed cost-containment measures will be adopted or otherwise implemented in the future, the announcement or adoption of these proposals could have a material adverse effect on our ability to obtain adequate prices for our product candidates and operate profitably.

In addition, in some foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country. For example, the European Union provides options for its member states to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. A member state may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. In some countries, pricing negotiations with governmental authorities can take six to 12 months or longer after the receipt of marketing approval. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost-effectiveness of our product candidate to other available therapies. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our products.

Employees

As of December 31, 2010, we had 25 employees, eight of whom hold an M.D., Ph.D. or Pharm. D. All of our employees are engaged in administration, finance, clinical, regulatory and business development functions. None of our employees are represented by a labor union, and we believe that our relations with our employees are good.

Other Available Information

We are subject to the information requirements of the Exchange Act. Therefore, we file periodic reports, proxy statements and other information with the SEC, which may be obtained by visiting the Public Reference Room of the SEC at 100 F Street, NE, Washington, D.C. 20549 or by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains a website (www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically.

The mailing address of our headquarters is 25801 Industrial Blvd, Hayward, CA 94545, and our telephone number at that location is 510-856-5600. Our website is www.anthera.com. Through a link on the Investors section of our website (under SEC Filings in the Financial Information section), we make available, free of charge, the following filings as soon as reasonably practicable after they are electronically filed with or furnished to the SEC: our Annual Reports on Form 10-K; Quarterly Reports on Form 10-Q; Current Reports on Form 8-K; and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act.

ITEM 1A. RISK FACTORS

Before you decide to invest in our common stock, you should carefully consider the risks described below, together with the other information contained in this Annual Report on Form 10-K, including the financial statements and the related notes that appear at the end of this report. We believe the risks described below are the risks that are material to us as of the date of this report. If any of the following risks occur, our business, financial condition, results of operations and future growth prospects would likely be materially and adversely affected. In these circumstances, the market price of our common stock could decline, and you may lose all or part of your investment.

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Risks Related to Our Financial Condition and Capital Requirements

We have incurred significant losses since our inception and anticipate that we will incur continued significant losses for the foreseeable future.

We are a development stage company with only six years of operating history. We have focused primarily on developing our three product candidates, varespladib, A-623 and varespladib sodium (A-001). We have financed our operations exclusively through equity offerings and private placements of convertible debt and we have incurred losses in each year since our inception in September 2004. Our net losses were approximately $8.7 million in 2006, $25.7 million in 2007, $18.1 million in 2008, $12.2 million in 2009 and $40.4 million for the year ended December 31, 2010. As of December 31, 2010, we had an accumulated deficit of approximately $105.6 million. Substantially all of our losses resulted from costs incurred in connection with our product development programs and from general and administrative costs associated with our operations.

We expect to incur additional losses over the next several years, and these losses may increase if we cannot generate revenues. Our historical losses, combined with expected future losses, have had and will continue to have an adverse effect on our stockholders equity and working capital. We expect our development expenses, as well as our clinical product manufacturing expenses, to increase in connection with our pivotal Phase 3 clinical study named VISTA-16 for varespladib, our Phase 2b clinical study named PEARL-SC for A-623 and other clinical studies related to the development of A-623. In addition, we will incur additional costs of operating as a public company and, if we obtain regulatory approval for any of our product candidates, we may incur significant sales, marketing, in-licensing and outsourced manufacturing expenses as well as continued product development expenses. As a result, we expect to continue to incur significant and increasing losses for the foreseeable future.

We have never generated any revenue and may never be profitable.

Our ability to generate revenue and achieve profitability depends on our ability, alone or with collaborators, to successfully complete the development of our product candidates, conduct preclinical tests in animals and clinical studies in human beings, obtain the necessary regulatory approvals for our product candidates and commercialize any approved products. We have not generated any revenue from our development-stage product candidates, and we do not know when, or if, we will generate any revenue. The commercial success of our development-stage product candidates will depend on a number of factors, including, but not limited to, our ability to:

- obtain favorable results for and advance the development of our lead product candidate, varespladib, for the treatment of acute coronary syndrome, including successfully launching and completing the VISTA-16 study;
- obtain favorable results for and advance the development of our product candidate A-623 for the treatment of B-cell mediated autoimmune diseases, including successfully launching and completing a Phase 2b clinical study in patients with systemic lupus erythematosus, or lupus, or other indications related to the development of A-623;
- obtain favorable results for and advance the development of our product candidate A-001 for the prevention of acute chest syndrome associated with sickle cell disease, including completing a multi-center Phase 2 clinical study;
- successfully execute our planned preclinical studies in animals and clinical studies in human beings for our other product candidates;
- obtain regulatory approval for varespladib, A-623, A-001 and our other product candidates;

if regulatory approvals are obtained, begin the commercial manufacturing of our product candidates with our third-party manufacturers;

launch commercial sales and effectively market our product candidates, either independently or in strategic collaborations with third parties; and

achieve broad market acceptance of our product candidates in the medical community and with third-party payors.

All of our product candidates are subject to the risks of failure inherent in the development of therapeutics based on new technologies. Currently, we have three product candidates in clinical development: varespladib,

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A-623 and A-001. These product candidates could fail in clinical studies if we are unable to demonstrate that they are effective or if they cause unacceptable adverse effects in the patients we treat. Failure of our product candidates in clinical studies would have a material adverse effect on our ability to generate revenue or become profitable. If we are not successful in achieving regulatory approval for our product candidates or are significantly delayed in doing so, our business will be materially harmed.

Additionally, all of our other product candidates are in preclinical development. Our drug discovery efforts may not produce any other viable or marketable product candidates. We do not expect any of our potential product candidates to be commercially available until at least 2013.

Even if our product candidates are approved for commercial sale, the approved product candidate may not gain market acceptance or achieve commercial success. Physicians, patients, payors or the medical community in general may be unwilling to accept, utilize or recommend any of our products. We would anticipate incurring significant costs associated with commercializing any approved product. Even if we are able to generate product sales, which we cannot guarantee, we may not achieve profitability soon thereafter, if ever. If we are unable to generate product revenues, we will not become profitable and may be unable to continue operations without additional funding.

We will need substantial additional capital in the future to fund our operations. If additional capital is not available, we will have to delay, reduce or cease operations.

We will need to raise substantial additional capital to fund our operations and to develop our product candidates. Our future capital requirements could be substantial and will depend on many factors including:

- the rate of progress of our Phase 3 clinical study named VISTA-16 study for varespladib and our Phase 2b clinical study named PEARL-SC for A-623;
- the scope, size, rate of progress, results and costs of our preclinical studies, clinical studies and other development activities for one or more of our other product candidates;
- manufacturing campaign of A-623 clinical matters, including formulation development and enhancement;
- non-clinical activities that we may pursue parallel to clinical trials for each clinical compound;
- the cost, timing and outcomes of regulatory proceedings;
- payments received under any strategic collaborations;
- the filing, prosecution and enforcement of patent claims;
- the costs associated with commercializing our product candidates if they receive regulatory approval, including the cost and timing of developing sales and marketing capabilities, or entering into strategic collaboration with others relating to the commercialization of our product candidates; and
- revenues received from approved products, if any, in the future.

As of the date of this report, we anticipate that our existing cash, cash equivalents and short-term investments, will enable us to maintain our currently planned operations through at least the next 12 months. Changing circumstances may cause us to consume capital significantly faster than we currently anticipate. Additional financing may not be available when we need it or may not be available on terms that are favorable to us. If adequate funds are not available

to us on a timely basis, or at all, we may be required to:

terminate, reduce or delay preclinical studies, clinical studies or other development activities for one or more of our product candidates; or

terminate, reduce or delay our (i) establishment of sales and marketing capabilities, (ii) pursuit of strategic collaborations with others relating to the sales, marketing and commercialization of our product candidates or (iii) other activities that may be necessary to commercialize our product candidates, if approved for sale.

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The timing of the milestone and royalty payments we are required to make to each of Eli Lilly and Company, Shionogi & Co., Ltd. and Amgen Inc. is uncertain and could adversely affect our cash flows and results of operations.

In July 2006, we entered into a license agreement with Eli Lilly and Company, or Eli Lilly, and Shionogi & Co., Ltd. to develop and commercialize certain secretory phospholipase A_2, or $sPLA_2$, inhibitors for the treatment of cardiovascular disease and other diseases. Pursuant to our license agreement with them, we have an obligation to pay to each of Eli Lilly and Shionogi & Co., Ltd. significant milestone and royalty payments based upon how we develop and commercialize certain $sPLA_2$ inhibitors, including varespladib and A-001, and our achievement of certain significant corporate, clinical and financial events. For varespladib, we are required to pay up to $32.0 million upon achievement of certain approval and post-approval sales milestones. For A-001, we are required to pay up to $3.0 million upon achievement of certain clinical development milestones and up to $25.0 million upon achievement of certain approval and post-approval sales milestones. For other product formulations that we are not currently developing, we would be required to pay up to $2.0 million upon achievement of certain clinical development milestones and up to $35.5 million upon achievement of certain approval and post-approval sales milestones. In addition, in December 2007, we entered into a license agreement with Amgen Inc., or Amgen, pursuant to which we obtained an exclusive worldwide license to certain technology and compounds relating to A-623. Pursuant to our license agreement with Amgen, we are required to make various milestone payments upon our achievement of certain development, regulatory and commercial objectives for any A-623 formulation. We are required to pay up to $10.0 million upon achievement of certain pre-approval clinical development milestones and up to $23.0 million upon achievement of certain post-approval milestones. We are also required to make tiered quarterly royalty payments on net sales, which increase as a percentage from the high single digits to the low double digits as net sales increase. The timing of our achievement of these events and corresponding milestone payments becoming due to Eli Lilly, Shionogi & Co., Ltd. and Amgen is subject to factors relating to the clinical and regulatory development and commercialization of certain $sPLA_2$ inhibitors or A-623, as applicable, many of which are beyond our control. We may become obligated to make a milestone payment during a period in which we do not have the cash on hand to make such payment, which could require us to delay our clinical studies, curtail our operations, scale back our commercialization and marketing efforts, seek funds to meet these obligations at terms unfavorable to us or default on our license agreements, which could result in license termination.

Our limited operating history makes it difficult to evaluate our business and prospects.

We were incorporated in September 2004. Our operations to date have been limited to organizing and staffing our company, acquiring product and technology rights, conducting product development activities for our primary product candidates, varespladib, A-623 and A-001, and performing research and development. We have not yet demonstrated an ability to obtain regulatory approval for or commercialize a product candidate. Consequently, any predictions about our future performance may not be as accurate as they could be if we had a history of successfully developing and commercializing pharmaceutical products.

Risks Associated with Development and Commercialization of Our Product Candidates

We depend substantially on the success of our three primary product candidates, varespladib, A-623 and A-001, which are still under clinical development. We cannot assure you that these product candidates or any of our other product candidates will receive regulatory approval or be successfully commercialized.

To date, we have not obtained marketing approval for, or marketed, distributed or sold any product candidates. The success of our business depends primarily upon our ability to develop and commercialize our three primary product candidates successfully. Our lead product candidate is varespladib, which has completed its Phase 2 clinical studies

and for which we have received (i) an agreement from the U.S. Food and Drug Administration, or FDA, on a Special Protocol Assessment, or SPA, for the VISTA-16 Phase 3 study protocol, and (ii) scientific advice from the European Medicines Agency on our European development strategy for varespladib. We initiated the VISTA-16 study for varespladib in June 2010.

Our next product candidate is A-623, which has completed several Phase 1 clinical studies and recently began enrollment for our Phase 2b clinical study. In July 2010, we received clearance from the FDA to begin recruitment of lupus patients into the PEARL-SC Phase 2b clinical study. In November 2010, we placed a voluntary hold on the PEARL-SC study due to problems found with vials. Patient enrollment in the study was temporarily suspended and dosing was discontinued in patients who were enrolled in the study while we conducted an analysis of the problem.

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We resolved the issues found with the vials in December 2010. After analysis, simulation and consultation with industry experts, we determined that shipping on dry ice was the root cause of the issue. Shipping logistics were modified and we reinitiated enrollment in PEARL-SC and dosing in January 2011. We have received no reports of patient-related side effects or problems with drug administration that could be attributed to the vial problem.

Our third product candidate, varespladib sodium (A-001), is an intravenously administered inhibitor of $sPLA_2$. We have completed a Phase 2 clinical study for the prevention of acute chest syndrome associated with sickle cell disease. A pre-specified interim review of our Phase 2 clinical study results by a Data Safety Monitoring Board, or DSMB, indicated A-001, at a certain dose, reduced $sPLA_2$ activity by more than 80% from baseline within 48 hours. Furthermore, the incidence of acute chest syndrome appeared to be related to the level of $sPLA_2$ activity.

Our product candidates are prone to the risks of failure inherent in drug development. Before obtaining regulatory approvals for the commercial sale of any product candidate for a target indication, we must demonstrate with substantial evidence gathered in preclinical and well-controlled clinical studies, and, with respect to approval in the United States, to the satisfaction of the FDA and, with respect to approval in other countries, similar regulatory authorities in those countries, that the product candidate is safe and effective for use for that target indication and that the manufacturing facilities, processes and controls are adequate. Despite our efforts, our product candidates may not:

- offer therapeutic or other improvement over existing, comparable therapeutics;
- be proven safe and effective in clinical studies;
- meet applicable regulatory standards;
- be capable of being produced in sufficient quantities at acceptable costs;
- be successfully commercialized; or
- obtain favorable reimbursement.

We are not permitted to market our varespladib and A-001 product candidates in the United States until we receive approval of a new drug application, or NDA, or with respect to our A-623 product candidate, approval of a biologics license application, or BLA, from the FDA, or in any foreign countries until we receive the requisite approval from such countries. We have not submitted an NDA or BLA or received marketing approval for any of our product candidates.

Preclinical testing and clinical studies are long, expensive and uncertain processes. We may spend several years completing our testing for any particular product candidate, and failure can occur at any stage. Negative or inconclusive results or adverse medical events during a clinical study could also cause the FDA or us to terminate a clinical study or require that we repeat it or conduct additional clinical studies. Additionally, data obtained from a clinical study are susceptible to varying interpretations and the FDA or other regulatory authorities may interpret the results of our clinical studies less favorably than we do. The FDA and equivalent foreign regulatory agencies have substantial discretion in the approval process and may decide that our data are insufficient to support a marketing application and require additional preclinical, clinical or other studies.

Any termination or suspension of, or delays in the commencement or completion of, clinical testing of our product candidates could result in increased costs to us, delay or limit our ability to generate revenue and adversely affect our commercial prospects.

Delays in the commencement or completion of clinical testing could significantly affect our product development costs. We do not know whether planned clinical studies will begin on time or be completed on schedule, if at all. The commencement and completion of clinical studies can be delayed for a number of reasons, including delays related to:

obtaining regulatory approval to commence a clinical study or complying with conditions imposed by a regulatory authority regarding the scope or design of a clinical study;

reaching agreement on acceptable terms with prospective clinical research organizations, or CROs, and study sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and study sites;

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manufacturing, including manufacturing sufficient quantities of a product candidate or other materials for use in clinical studies;

obtaining institutional review board, or IRB, approval or the approval of other reviewing entities to conduct a clinical study at a prospective site;

recruiting and enrolling patients to participate in clinical studies for a variety of reasons, including size of patient population, nature of clinical study protocol, the availability of approved effective treatments for the relevant disease and competition from other clinical study programs for similar indications;

severe or unexpected drug-related adverse effects experienced by patients in a clinical study; and

retaining patients who have initiated a clinical study, but may withdraw due to treatment protocol, adverse effects from the therapy, lack of efficacy from the treatment, personal issues or who are lost to further follow-up.

Clinical studies may also be delayed, suspended or terminated as a result of ambiguous or negative interim results, or results that are inconsistent with earlier results. For example, the independent statistician that is conducting the data review may recommend that we stop our VISTA-16 study for varespladib if certain biomarkers of inflammation and lipid profiles fail to meet pre-specified reductions from a subset of the first 1,000 or more patients. In addition, a clinical study may be suspended or terminated by us, the FDA, the IRB or other reviewing entity overseeing the clinical study at issue, any of our clinical study sites with respect to that site, or other regulatory authorities due to a number of factors, including:

failure to conduct the clinical study in accordance with regulatory requirements or our clinical protocols;

inspection of the clinical study operations or study sites by the FDA or other regulatory authorities resulting in the imposition of a clinical hold;

unforeseen safety issues or any determination that a clinical study presents unacceptable health risks; and

lack of adequate funding to continue the clinical study, including the incurrence of unforeseen costs due to enrollment delays, requirements to conduct additional clinical studies and increased expenses associated with the services of our CROs and other third parties.

Product development costs to us and our collaborators will increase if we have delays in testing or approval of our product candidates or if we need to perform more or larger clinical studies than planned. For example, we may need to increase our sample size for our VISTA-16 study for varespladib if the overall major adverse cardiovascular event, or MACE, rate is lower than expected. We typically rely on third-party clinical investigators at medical institutions and health care facilities to conduct our clinical studies and, as a result, we may face additional delaying factors outside our control.

Additionally, changes in regulatory requirements and policies may occur and we may need to amend clinical study protocols to reflect these changes. Amendments may require us to resubmit our clinical study protocols to IRBs for reexamination, which may impact the costs, timing or successful completion of a clinical study. If we experience delays in completion of, or if we, the FDA or other regulatory authorities, the IRB or other reviewing entities, or any of our clinical study sites suspend or terminate any of our clinical studies, the commercial prospects for our product candidates may be harmed and our ability to generate product revenues will be delayed. In addition, many of the

factors that cause, or lead to, termination or suspension of, or a delay in the commencement or completion of, clinical studies may also ultimately lead to the denial of regulatory approval of a product candidate. Also, if one or more clinical studies are delayed, our competitors may be able to bring products to market before we do, and the commercial viability of our product candidates could be significantly reduced.

The results of biomarker assays in earlier clinical studies in varespladib are not necessarily predictive of future results, and therefore the results of biomarker assays in the VISTA-16 study may not be similar to those observed previously.

Success in our Phase 2 clinical studies in lowering low-density lipoprotein cholesterol, or LDL-C, C-reactive protein, or CRP, $sPLA_2$ and interleukin-6, or IL-6, during treatment with varespladib does not ensure that later clinical studies, such as our VISTA-16 study, will demonstrate similar reductions in these biomarkers. Each of these biomarkers has been associated with an increased risk for secondary MACE following an acute coronary syndrome.

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Our inability to demonstrate similar biomarker effects in our VISTA-16 study may reduce our ability to achieve our primary endpoint to reduce MACE and to achieve regulatory approval of varespladib. Even if we demonstrate similar biomarker effects in our VISTA-16 study, those results do not necessarily equate with reductions in MACE.

Because the results of preclinical testing or earlier clinical studies are not necessarily predictive of future results, varespladib, A-623, A-001 or any other product candidate we advance into clinical studies may not have favorable results in later clinical studies or receive regulatory approval.

Success in preclinical testing and early clinical studies does not ensure that later clinical studies will generate adequate data to demonstrate the efficacy and safety of an investigational drug or biologic. A number of companies in the pharmaceutical and biotechnology industries, including those with greater resources and experience, have suffered significant setbacks in Phase 3 clinical studies, even after seeing promising results in earlier clinical studies. Despite the results reported in earlier clinical studies for our product candidates, including varespladib, A-623 and A-001, we do not know whether any Phase 3 or other clinical studies we may conduct will demonstrate adequate efficacy and safety to result in regulatory approval to market any of our product candidates. If later stage clinical studies do not produce favorable results, our ability to achieve regulatory approval for any of our product candidates may be adversely impacted. Even if we believe that our product candidates have performed satisfactorily in preclinical testing and clinical studies, we may nonetheless fail to obtain FDA approval for our product candidates.

If we breach the license agreements for our primary product candidates, we could lose the ability to continue the development and commercialization of our primary product candidates.

We are party to an agreement with Eli Lilly and Shionogi & Co., Ltd. containing exclusive, worldwide licenses, except for Japan, of the composition of matter, methods of making and methods of use for certain $sPLA_2$ inhibitors. We are also party to an agreement with Amgen containing exclusive, worldwide licenses of the composition of matter and methods of use for A-623. These agreements require us to make timely milestone and royalty payments, provide regular information, maintain the confidentiality of and indemnify Eli Lilly, Shionogi & Co., Ltd. and Amgen under the terms of the agreements.

If we fail to meet these obligations, our licensors may terminate our exclusive licenses and may be able to re-obtain licensed technology and aspects of any intellectual property controlled by us that relate to the licensed technology that originated from the licensors. Our licensors could effectively take control of the development and commercialization of varespladib, A-623 and A-001 after an uncured, material breach of our license agreements by us or if we voluntarily terminate the agreements. While we would expect to exercise all rights and remedies available to us, including seeking to cure any breach by us, and otherwise seek to preserve our rights under the patents licensed to us, we may not be able to do so in a timely manner, at an acceptable cost or at all. Any uncured, material breach under the licenses could result in our loss of exclusive rights and may lead to a complete termination of our product development and any commercialization efforts for varespladib, A-623 or A-001.

Our industry is subject to intense competition. If we are unable to compete effectively, our product candidates may be rendered non-competitive or obsolete.

The pharmaceutical industry is highly competitive and subject to rapid and significant technological change. Our potential competitors include large pharmaceutical and more established biotechnology companies, specialty pharmaceutical and generic drug companies, academic institutions, government agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and commercialization. All of these competitors currently engage in, have engaged in or may engage in the future in the development, manufacturing, marketing and commercialization of pharmaceuticals and biotechnologies, some of which may compete with our present or future product candidates. It is

possible that any of these competitors could develop technologies or products that would render our product candidates obsolete or non-competitive, which could adversely affect our revenue potential. Key competitive factors affecting the commercial success of our product candidates are likely to be efficacy, safety profile, reliability, convenience of dosing, price and reimbursement.

The market for inflammatory disease therapeutics is especially large and competitive. All of the $sPLA_2$ inhibitor compounds we are currently developing, if approved, will face intense competition, either as

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monotherapies or in combination therapies. We are aware of other companies with products in development that are being tested for anti-inflammatory benefits in patients with acute coronary syndrome, such as Via Pharmaceuticals, Inc. and its 5-lipoxygenase, or 5-LO, inhibitor, which has been evaluated in Phase 2 clinical studies; and GlaxoSmithKline plc and its product candidate, darapladib, which is a lipoprotein associated phospholipase A_2, or Lp-PLA_2, inhibitor currently being evaluated in Phase 3 clinical studies. Although there are no sPLA_2 inhibitor compounds currently approved by the FDA for the treatment of acute chest syndrome associated with sickle cell disease, Droxia, or hydroxyurea, is approved for the prevention of vaso-occlusive crisis, or VOC, in sickle cell disease and thus could reduce the pool of patients with VOC at risk for acute chest syndrome. Further, we are aware of companies with other products in development that are being tested for potential treatment of lupus, including Human Genome Sciences, Inc. and GlaxoSmithKline plc, who have a BAFF antagonist monoclonal antibody product candidate, Benlysta, which recently reported favorable results from two Phase 3 clinical studies in lupus; ZymoGenetics, Inc. and Merck Serono S.A., whose dual BAFF/APRIL antagonist fusion protein, Atacicept, is in a Phase 3 clinical study for lupus; and Immunomedics, Inc. and UCB S.A., who recently reported favorable results for their CD-22 antagonist humanized antibody, epratuzumab, which completed a Phase 2b clinical study in lupus and has begun a Phase 3 study.

Many of our potential competitors have substantially greater financial, technical and human resources than we do and significantly greater experience in the discovery and development of drug 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 FDA approval for drugs and achieving widespread market acceptance. Our competitors drugs may be more effective, have fewer adverse effects, be less expensive to develop and manufacture or be more effectively marketed and sold than any product candidate 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. These entities may also establish collaborative or licensing relationships with our competitors. Finally, the development of new treatment methods for the diseases we are targeting could render our drugs non-competitive or obsolete. All of these factors could adversely affect our business.

Our product candidates may cause undesirable adverse effects or have other properties that could delay or prevent their regulatory approval or limit the commercial profile of any approved label.

Undesirable adverse effects caused by our product candidates could cause us, IRBs or other reviewing entities, clinical study sites, or regulatory authorities to interrupt, delay or halt clinical studies and could result in the denial of regulatory approval by the FDA or other regulatory authorities. Phase 2 clinical studies conducted by us with our product candidates have generated differences in adverse effects and serious adverse events. The most common adverse effects seen with any of our product candidates versus placebo include diarrhea, headache, nausea and increases in alanine aminotransferase, which is an enzyme that indicates liver cell injury. The most common serious adverse events seen with any of our product candidates include death, VOC and congestive heart failure. While none of these serious adverse events were considered related to the administration of our product candidates by the clinical investigators, if serious adverse events that are considered related to our product candidates are observed in any Phase 3 clinical studies, our ability to obtain regulatory approval for our product candidates may be adversely impacted. Further, if any of our product candidates receives marketing approval and we or others later discover, after approval and use in an increasing number of patients, that our products could have adverse effect profiles that limit their usefulness or require their withdrawal (whether or not the therapies showed the adverse effect profile in Phase 1 through Phase 3 clinical studies), a number of potentially significant negative consequences could result, including:

- regulatory authorities may withdraw their approval of the product;

regulatory authorities may require the addition of labeling statements, such as warnings or contraindications;

we may be required to change the way the product is administered, conduct additional clinical studies or change the labeling of the product;

we could be sued and held liable for harm caused to patients; and

our reputation may suffer.

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Any of these events could prevent us from achieving or maintaining market acceptance of the affected product candidate and could substantially increase the costs of commercializing our product candidates.

After the completion of our clinical studies, we cannot predict whether or when we will obtain regulatory approval to commercialize our product candidates and we cannot, therefore, predict the timing of any future revenue from these product candidates.

Even if we project positive clinical results and file for regulatory approval, we cannot commercialize any of our product candidates until the appropriate regulatory authorities have reviewed and approved the applications for such product candidates. We cannot assure you that the regulatory agencies will complete their review processes in a timely manner or that we will obtain regulatory approval for any product candidate we develop. Satisfaction of regulatory requirements typically takes many years, is dependent upon the type, complexity and novelty of the product and requires the expenditure of substantial resources. In addition, we may experience delays or rejections based upon additional government regulation from future legislation or administrative action or changes in FDA policy during the period of product development, clinical studies and FDA regulatory review.

Our agreement with the FDA on an SPA for our VISTA-16 study of varespladib for the potential treatment of acute coronary syndrome does not guarantee any particular outcome from regulatory review of the study or the product candidate.

The FDA s SPA process creates a written agreement between the sponsoring company and the FDA regarding clinical study design and other clinical study issues that can be used to support approval of a product candidate. The SPA is intended to provide assurance that if the agreed upon clinical study protocols are followed and the clinical study endpoints are achieved, the data may serve as the primary basis for an efficacy claim in support of an NDA. However, the SPA agreement is not a guarantee of an approval of a product or any permissible claims about the product. In particular, the SPA is not binding on the FDA if public health concerns unrecognized at the time of the SPA agreement is entered into become evident, other new scientific concerns regarding product safety or efficacy arise or if the sponsor company fails to comply with the agreed upon clinical study protocols. Although we have an agreement with the FDA on an SPA for our VISTA-16 clinical study of varespladib for the potential short-term (16-week) treatment of acute coronary syndrome, we do not know how the FDA will interpret the commitments under our agreed upon SPA, how it will interpret the data and results or whether it will approve our varespladib product candidate for the short-term (16-week) treatment of acute coronary syndrome. Regardless of our SPA agreement, we cannot guarantee any particular outcome from regulatory review of our VISTA-16 study.

Even if our product candidates receive regulatory approval, they may still face future development and regulatory difficulties.

Even if U.S. regulatory approval is obtained, the FDA may still impose significant restrictions on a product s indicated uses or marketing or impose ongoing requirements for potentially costly post-approval studies or post-market surveillance. For example, the label ultimately approved for varespladib, if any, may include restrictions on use. Further, the FDA has indicated that long-term safety data on varespladib may need to be obtained as a post-market requirement. Our product candidates will also be subject to ongoing FDA requirements governing the labeling, packaging, storage, distribution, safety surveillance, advertising, promotion, recordkeeping and reporting of safety and other post-market information. In addition, manufacturers of drug products and their facilities are subject to continual review and periodic inspections by the FDA and other regulatory authorities for compliance with current good manufacturing practices, or cGMP, regulations. If we or a regulatory agency discovers previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, a regulatory agency may impose restrictions on that product, the manufacturing facility or

us, including requiring recall or withdrawal of the product from the market or suspension of manufacturing. If we, our product candidates or the manufacturing facilities for our product candidates fail to comply with applicable regulatory requirements, a regulatory agency may:

issue warning letters or untitled letters;

seek an injunction or impose civil or criminal penalties or monetary fines;

suspend or withdraw regulatory approval;

suspend any ongoing clinical studies;

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refuse to approve pending applications or supplements to applications filed by us;

suspend or impose restrictions on operations, including costly new manufacturing requirements; or

seize or detain products, refuse to permit the import or export of products, or require us to initiate a product recall.

The occurrence of any event or penalty described above may inhibit our ability to commercialize our products and generate revenue.

New legal and regulatory requirements could make it more difficult for us to obtain approvals for our product candidates and could limit or make more burdensome our ability to commercialize any approved products.

New federal legislation or regulatory requirements could affect the requirements for obtaining regulatory approvals of our product candidates or otherwise limit our ability to commercialize any approved products or subject our products to more rigorous post-approval requirements. For example, the FDA Amendments Act of 2007, or FDAAA, granted the FDA new authority to impose post-approval clinical study requirements, require safety-related changes to product labeling and require the adoption of risk management plans, referred to in the legislation as risk evaluation and mitigation strategies, or REMS. The REMS may include requirements for special labeling or medication guides for patients, special communication plans to health care professionals, and restrictions on distribution and use. Pursuant to the FDAAA, if the FDA makes the requisite findings, it might require that a new product be used only by physicians with specified specialized training, only in specified designated health care settings, or only in conjunction with special patient testing and monitoring. The legislation also included the following: requirements for providing the public information on ongoing clinical studies through a clinical study registry and for disclosing clinical study results to the public through such registry; renewed requirements for conducting clinical studies to generate information on the use of products in pediatric patients; and substantial new penalties, for example, for false or misleading consumer advertisements. Other proposals have been made to impose additional requirements on drug approvals, further expand post-approval requirements, and restrict sales and promotional activities. The new legislation, and the additional proposals if enacted, may make it more difficult or burdensome for us to obtain approval of our product candidates, any approvals we receive may be more restrictive or be subject to onerous post-approval requirements, our ability to successfully commercialize approved products may be hindered and our business may be harmed as a result.

If any of our product candidates for which we receive regulatory approval does not achieve broad market acceptance, the revenue that we generate from its sales, if any, will be limited.

The commercial success of our product candidates for which we obtain marketing approval from the FDA or other regulatory authorities will depend upon the acceptance of these products by the medical community, including physicians, patients and health care payors. The degree of market acceptance of any of our approved products will depend on a number of factors, including:

demonstration of clinical safety and efficacy compared to other products;

the relative convenience, ease of administration and acceptance by physicians and payors of varespladib in the treatment of acute coronary syndrome, A-623 in the treatment of lupus and A-001 in the prevention of acute chest syndrome associated with sickle cell disease;

the prevalence and severity of any adverse effects;

limitations or warnings contained in a product s FDA-approved labeling;

availability of alternative treatments, including, in the case of varespladib, a number of competitive products being studied for anti-inflammatory benefits in patients with acute coronary syndrome or expected to be commercially launched in the near future;

pricing and cost-effectiveness;

the effectiveness of our or any future collaborators sales and marketing strategies;

our ability to obtain and maintain sufficient third-party coverage or reimbursement from government health care programs, including Medicare and Medicaid; and

the willingness of patients to pay out-of-pocket in the absence of third-party coverage.

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If our product candidates are approved but do not achieve an adequate level of acceptance by physicians, health care payors and patients, we may not generate sufficient revenue from these products, and we may not become or remain profitable. In addition, our efforts to educate the medical community and third-party payors on the benefits of our product candidates may require significant resources and may never be successful.

Our future success depends on our ability to retain our chief executive officer and other key executives and to attract, retain and motivate qualified personnel.

We are highly dependent on Mr. Paul F. Truex, our President and Chief Executive Officer, Dr. Colin Hislop, our Senior Vice President and Chief Medical Officer and the other principal members of our executive team listed under Executive Officers in Part III of this report. The loss of the services of any of these persons might impede the achievement of our research, development and commercialization objectives. Recruiting and retaining qualified scientific personnel and possibly sales and marketing personnel will also be critical to our success. We may not be able to attract and retain these personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. We also experience competition for the hiring of scientific personnel from universities and research institutions. Failure to succeed in clinical studies may make it more challenging to recruit and retain qualified scientific personnel. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategy. Our consultants and advisors may be employed by employers other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us.

Recently enacted and future legislation or regulatory reform of the health care system in the United States and foreign jurisdictions may affect our ability to sell our products profitably.

Our ability to commercialize our future products successfully, alone or with collaborators, will depend in part on the extent to which reimbursement for the products will be available from government and health administration authorities, private health insurers and other third-party payors. The continuing efforts of the U.S. and foreign governments, insurance companies, managed care organizations and other payors of health care services to contain or reduce health care costs may adversely affect our ability to set prices for our products which we believe are fair, and our ability to generate revenues and achieve and maintain profitability.

Specifically, in both the United States and some foreign jurisdictions, there have been a number of legislative and regulatory proposals to change the health care system in ways that could affect our ability to sell our products profitably. In March 2010, President Obama signed into law the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively, the Health Care Reform Law, a sweeping law intended to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for healthcare and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms.

We will not know the full effects of the Health Care Reform Law until applicable federal and state agencies issue regulations or guidance under the new law. Although it is too early to determine the effect of the Health Care Reform Law, the new law appears likely to continue the pressure on pharmaceutical pricing, especially under the Medicare program, and also may increase our regulatory burdens and operating costs. We expect further federal and state proposals and health care reforms to continue to be proposed by legislators, which could limit the prices that can be charged for the products we develop and may limit our commercial opportunity.

Also in the United States, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, also called the Medicare Modernization Act, or MMA, changed the way Medicare covers and pays for pharmaceutical products.

The legislation expanded Medicare coverage for drug purchases by the elderly and introduced a new reimbursement methodology based on average sales prices for drugs. In addition, this legislation authorized Medicare Part D prescription drug plans to use formularies where they can limit the number of drugs that will be covered in any therapeutic class. As a result of this legislation and the expansion of federal coverage of drug products, we expect that there will be additional pressure to contain and reduce costs. These cost reduction initiatives and other provisions of this legislation could decrease the coverage and price that we receive for any approved products and could seriously harm our business. While the MMA applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting

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their own reimbursement rates, and any reduction in reimbursement that results from the MMA may result in a similar reduction in payments from private payors.

The continuing efforts of government and other third-party payors to contain or reduce the costs of health care through various means may limit our commercial opportunity. It will be time-consuming and expensive for us to go through the process of seeking reimbursement from Medicare and private payors. Our products may not be considered cost-effective, and government and third-party private health insurance coverage and reimbursement may not be available to patients for any of our future products or sufficient to allow us to sell our products on a competitive and profitable basis. Our results of operations could be adversely affected by the MMA, the Health Care Reform Law, and additional prescription drug coverage legislation, by the possible effect of this legislation on amounts that private insurers will pay and by other health care reforms that may be enacted or adopted in the future. In addition, increasing emphasis on managed care in the United States will continue to put pressure on the pricing of pharmaceutical products. Cost control initiatives could decrease the price that we or any potential collaborators could receive for any of our future products and could adversely affect our profitability.

In some foreign countries, including major markets in the European Union and Japan, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take six to 12 months or longer after the receipt of regulatory marketing approval for a product. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical study that compares the cost-effectiveness of our product candidates to other available therapies. Such pharmacoeconomic studies can be costly and the results uncertain. Our business could be harmed if reimbursement of our products is unavailable or limited in scope or amount or if pricing is set at unsatisfactory levels.

We face potential product liability exposure, and, if successful claims are brought against us, we may incur substantial liability.

The use of our product candidates in clinical studies and the sale of any products for which we obtain marketing approval expose us to the risk of product liability claims. Product liability claims might be brought against us by consumers, health care providers, pharmaceutical companies or others selling or otherwise coming into contact with our products. If we cannot successfully defend ourselves against product liability claims, we could incur substantial liabilities. In addition, regardless of merit or eventual outcome, product liability claims may result in:

- impairment of our business reputation;
- withdrawal of clinical study participants;
- costs of related litigation;
- distraction of management s attention from our primary business;
- substantial monetary awards to patients or other claimants;
- the inability to commercialize our product candidates; and
- decreased demand for our product candidates, if approved for commercial sale.

Our product liability insurance coverage for our clinical studies may not be sufficient to reimburse us for all expenses or losses we may suffer. Moreover, insurance coverage is becoming increasingly expensive, and, in the future, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses

due to liability. If and when we obtain marketing approval for any of our product candidates, we intend to expand our insurance coverage to include the sale of commercial products; however, we may be unable to obtain this product liability insurance on commercially reasonable terms. On occasion, large judgments have been awarded in class action lawsuits based on drugs that had unanticipated adverse effects. A successful product liability claim or series of claims brought against us could cause our stock price to decline and, if judgments exceed our insurance coverage, could decrease our cash and adversely affect our business.

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

Our research and development activities involve the controlled use of potentially hazardous substances, including toxic chemical and biological materials. We could be held liable for any contamination, injury or other damages resulting from these hazardous substances. In addition, our operations produce hazardous waste products.

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While third parties are responsible for disposal of our hazardous waste, we could be liable under environmental laws for any required cleanup of sites at which our waste is disposed. Federal, state, foreign and local laws and regulations govern the use, manufacture, storage, handling and disposal of these hazardous materials. If we fail to comply with these laws and regulations at any time, or if they change, we may be subject to criminal sanctions and substantial civil liabilities, which may harm our business. Even if we continue to comply with all applicable laws and regulations regarding hazardous materials, we cannot eliminate the risk of accidental contamination or discharge and our resultant liability for any injuries or other damages caused by these accidents.

We rely on third parties to conduct, supervise and monitor our clinical studies, and those third parties may perform in an unsatisfactory manner, such as by failing to meet established deadlines for the completion of these clinical studies, or may harm our business if they suffer a catastrophic event.

We rely on third parties such as CROs, medical institutions and clinical investigators to enroll qualified patients and conduct, supervise and monitor our clinical studies. Our reliance on these third parties for clinical development activities reduces our control over these activities. Our reliance on these third parties, however, does not relieve us of our regulatory responsibilities, including ensuring that our clinical studies are conducted in accordance with good clinical practices, or GCP, and the investigational plan and protocols contained in the relevant regulatory application, such as the investigational new drug application, or IND. In addition, the CROs with whom we contract may not complete activities on schedule, or may not conduct our preclinical studies or clinical studies in accordance with regulatory requirements or our clinical study design. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, our efforts to obtain regulatory approvals for, and to commercialize, our product candidates may be delayed or prevented. In addition, if a catastrophe such as an earthquake, fire, flood or power loss should affect one of the third parties on which we rely, our business prospects could be harmed. For example, if a central laboratory holding all of our clinical study samples were to suffer a catastrophic loss of their facility, we would lose all of our samples and would have to repeat our studies.

Any failure by our third-party manufacturers on which we rely to produce our preclinical and clinical drug supplies and on which we intend to rely to produce commercial supplies of any approved product candidates may delay or impair our ability to commercialize our product candidates.

We have relied upon a small number of third-party manufacturers and active pharmaceutical ingredient formulators for the manufacture of our material for preclinical and clinical testing purposes and intend to continue to do so in the future. We also expect to rely upon third parties to produce materials required for the commercial production of our product candidates if we succeed in obtaining necessary regulatory approvals. 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 our 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) 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, 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, total or partial suspension of production or injunction.

As part of our discussions to reactivate our US IND for A-623, we received a request from the FDA for additional information regarding the characterization and qualification of the already manufactured vials of A-623 and plans for any future manufactured vials of A-623 that we intend to use in clinical studies. In response to this request, we provided the FDA additional analytical data regarding all lots of previously manufactured A-623 to be utilized in the current PEARL-SC clinical study. In addition, since new vials of A-623 will be manufactured at a new facility by our partner Merck Biomanufacturing Network (recently acquired by Fujifilm), we are preparing and will

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submit a comparability protocol to the FDA to establish appropriate comparability and specifications requirements of newly manufactured vials of A-623 to be included in any future clinical studies. We anticipate submitting this protocol to the FDA in Q2 2011. Should the FDA not agree with our comparability protocol proposal or if we are unable to agree on the specifications for future A-623 manufacturing, further clinical development of A-623 beyond the PEARL-SC clinical study would be substantially delayed and we would incur substantial additional expense.

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 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 these raw materials by our manufacturers. Moreover, we currently do not have any agreements for the commercial production of these raw materials. Although we generally do not begin a clinical study unless we believe we have a sufficient supply of a product candidate to complete the clinical study, any significant delay in the supply of a product candidate or the raw material components thereof for an ongoing clinical study 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 of such product candidates, which would impair our ability to generate revenues from the sale of our product candidates.

Because of the complex nature of our compounds, our manufacturers may not be able to manufacture our compounds at a cost or in quantities or in a timely manner necessary to make commercially successful products. If we successfully commercialize any of our drugs, we may be required to establish large-scale commercial manufacturing capabilities. In addition, as our drug development pipeline increases and matures, we will have a greater need for clinical study and commercial manufacturing capacity. We have no experience manufacturing pharmaceutical products on a commercial scale and some of these suppliers will need to increase their scale of production to meet our projected needs for commercial manufacturing, the satisfaction of which on a timely basis may not be met.

If we are unable to establish sales and marketing capabilities or enter into agreements with third parties to market and sell our product candidates, we may be unable to generate any revenue.

We do not currently have an organization for the sales, marketing and distribution of pharmaceutical products and the cost of establishing and maintaining such an organization may exceed the cost-effectiveness of doing so. In order to market any products that may be approved by the FDA, we must build our sales, marketing, managerial and other non-technical capabilities or make arrangements with third parties to perform these services. If we are unable to establish adequate sales, marketing and distribution capabilities, whether independently or with third parties, we may not be able to generate product revenue and may not become profitable. We will be competing with many companies that currently have extensive and well-funded marketing and sales operations. Without an internal team or the support of a third party to perform marketing and sales functions, we may be unable to compete successfully against these more established companies.

Guidelines and recommendations published by various organizations may adversely affect the use of any products for which we may receive regulatory approval.

Government agencies issue regulations and guidelines directly applicable to us and to our product candidates. In addition, professional societies, practice management groups, private health or science foundations and organizations involved in various diseases from time to time publish guidelines or recommendations to the medical and patient communities. These various sorts of recommendations may relate to such matters as product usage and use of related or competing therapies. For example, organizations like the American Heart Association have made recommendations

about therapies in the cardiovascular therapeutics market. Changes to these recommendations or other guidelines advocating alternative therapies could result in decreased use of any products for which we may receive regulatory approval, which may adversely affect our results of operations.

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Risks Related to Our Intellectual Property

If our or our licensors patent positions do not adequately protect our product candidates or any future products, others could compete with us more directly, which would harm our business.

As of the date of this report and as described in the section entitled Business Intellectual Property on page 25, we hold a total of four pending U.S. non-provisional patent applications, two pending U.S. provisional patent applications and two pending Patent Cooperation Treaty, or PCT, patent applications. Another PCT application has entered the national phase in the European Patent Office, the Eurasian Patent Organization and 17 other countries. We have also entered into exclusive license agreements for certain composition of matter, method of use and method of making patents and patent applications for certain of our development compounds. These license agreements encompass (i) 13 U.S. patents, one pending U.S. non-provisional patent application, five European, or EP, patents, one pending EP patent application, 20 non-EP foreign patents and three pending non-EP foreign patent applications relating to varespladib and A-001; (ii) more than 30 U.S. patents, one pending U.S. non-provisional patent application, six EP patents, one pending EP patent application, 13 issued non-EP foreign patents and one pending non-EP foreign patent applications relating to other $sPLA_2$ inhibiting compounds including A-003; and (iii) two U.S. patents, one pending U.S. non-provisional patent application, one EP patent, two pending EP patent applications, eleven non-EP foreign patents and 13 non-EP foreign patent applications relating to A-623. Our commercial success will depend in part on our and our licensors ability to obtain additional patents and protect our existing patent positions, particularly those patents for which we have secured exclusive rights, as well as our ability to maintain adequate protection of other intellectual property for our technologies, product candidates and any future products in the United States and other countries. If we or our licensors do not adequately protect our intellectual property, competitors may be able to use our technologies and erode or negate any competitive advantage we may have, which could materially harm our business, negatively affect our position in the marketplace, limit our ability to commercialize our product candidates and delay or render impossible our achievement of profitability. The laws of some foreign countries do not protect our proprietary rights to the same extent as the laws of the United States, and we may encounter significant problems in protecting our proprietary rights in these countries.

The patent positions of biotechnology and pharmaceutical companies, including our patent position, involve complex legal and factual questions, and, therefore, validity and enforceability cannot be predicted with certainty. Patents may be challenged, deemed unenforceable, invalidated or circumvented. We and our licensors will be able to protect our proprietary rights from unauthorized use by third parties only to the extent that our proprietary technologies, product candidates and any future products are covered by valid and enforceable patents or are effectively maintained as trade secrets.

The degree of future protection for our proprietary rights is uncertain, and we cannot ensure that:

- we or our licensors were the first to make the inventions covered by each of our pending patent applications;
- we or our licensors were the first to file patent applications for these inventions;
- others will not independently develop similar or alternative technologies or duplicate any of our technologies;
- any of our or our licensors pending patent applications will result in issued patents;
- any of our or our licensors patents will be valid or enforceable;
- any patents issued to us or our licensors and collaborators will provide a basis for commercially viable products, will provide us with any competitive advantages or will not be challenged by third parties;

we will develop additional proprietary technologies or product candidates that are patentable; or

the patents of others will not have an adverse effect on our business.

We may be unable to adequately prevent disclosure of trade secrets and other proprietary information.

We rely on trade secrets to protect our proprietary know-how and technological advances, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. We rely in part on confidentiality agreements with our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors to protect our trade secrets and other proprietary information. These agreements may

not effectively prevent disclosure of confidential information and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. In addition, others may independently discover our trade secrets and proprietary information. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights. Failure to obtain or maintain trade secret protection could enable competitors to use our proprietary information to develop products that compete with our products or cause additional, material adverse effects upon our competitive business position.

We license patent rights from third-party owners. If we, or such owners, do not properly maintain or enforce the patents underlying such licenses, our competitive position and business prospects will be harmed.

We have obtained exclusive, worldwide licenses, except for Japan, of the composition of matter, methods of making and methods of use for certain $sPLA_2$ compounds from Eli Lilly and Shionogi & Co., Ltd. In addition, we are party to a license agreement with Amgen that provides exclusive and worldwide rights to develop and commercialize A-623, a novel BAFF inhibitor, as well as non-exclusive rights to certain technology relating to peptibody compositions and formulations. We may enter into additional licenses to third-party intellectual property in the future.

We depend in part on our licensors to protect the proprietary rights covering our in-licensed $sPLA_2$ compounds and A-623, respectively. Our licensors are responsible for maintaining certain issued patents and prosecuting certain patent applications. We have limited, if any, control over the amount or timing of resources that our licensors devote on our behalf or the priority they place on maintaining these patent rights and prosecuting these patent applications to our advantage. Our licensors may also be notified of alleged infringement and be sued for infringement of third-party patents or other proprietary rights. We may have limited, if any, control or involvement over the defense of these claims, and our licensors could be subject to injunctions and temporary or permanent exclusionary orders in the United States or other countries. Our licensors are not obligated to defend or assist in our defense against third-party claims of infringement. We have limited, if any, control over the amount or timing of resources, if any, that our licensors devote on our behalf or the priority they place on defense of such third-party claims of infringement.

Our success will depend in part on the ability of us or our licensors to obtain, maintain and enforce patent protection for their intellectual property, in particular, those patents to which we have secured exclusive rights. We or our licensors may not successfully prosecute the patent applications which we have licensed. Even if patents issue in respect of these patent applications, we or our licensors may fail to maintain these patents, may determine not to pursue litigation against other companies that are infringing these patents or may pursue such litigation less aggressively than we would. Without protection for the intellectual property we license, other companies might be able to offer substantially identical products for sale, which could adversely affect our competitive business position and harm our business prospects.

If we do not obtain protection under the Hatch-Waxman Act and similar foreign legislation to extend our licensed patent terms and to obtain market exclusivity for our product candidates, our business will be materially harmed.

The United States Drug Price Competition and Patent Term Restoration Act of 1984, more commonly known as the Hatch-Waxman Act, provides for an extension of patent term for drug compounds for a period of up to five years to compensate for time spent in the regulatory approval process. Assuming we gain a five-year patent term extension for each of our current product candidates in clinical development, and that we continue to have rights under our license agreements with respect to these product candidates, we would have exclusive rights to varespladib s U.S. new chemical entity patent (the primary patent covering the compound as a new composition of matter) until 2019 and to A-623 s U.S. new chemical entity patent until 2027. In Europe, similar legislative enactments allow patent terms in the European Union to be extended for up to five years through the grant of a Supplementary Protection Certificate. Assuming we gain such a five-year extension for each of our current product candidates in clinical development, and that we continue to have rights under our license agreements with respect to these product candidates, we would have

exclusive rights to varespladib s European new chemical entity patents until 2020 and to A-623 s European new chemical entity patents until 2027. In addition, since varespladib has not been previously approved in the United States, varespladib could be eligible for up to five years of New Chemical

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Entity, or NCE, exclusivity from the FDA. NCE exclusivity would prevent the FDA from approving any generic competitor following NDA approval independent of the patent status of varespladib. Further, since A-623 has not been previously approved, A-623 could be eligible for 12 years of data exclusivity from the FDA. During the data exclusivity period, competitors are barred from relying on the innovator biologic s safety and efficacy data to gain approval. Similarly, the European Union provides that companies who receive regulatory approval for a new small molecule compound or biologic will have a 10-year period of data exclusivity for that compound or biologic (with the possibility of a further one-year extension) in most EU countries, beginning on the date of such European regulatory approval, regardless of when the European new chemical entity patent covering such compound expires. A generic version of the approved drug may not be marketed or sold during such market exclusivity period. However, there is no assurance that we will receive the extensions of our patents or other exclusive rights available under the Hatch-Waxman Act or similar foreign legislation. If we fail to receive such Hatch-Waxman extensions or marketing exclusivity rights or if we receive extensions that are materially shorter than expected, our ability to prevent competitors from manufacturing, marketing and selling generic versions of our products will be materially harmed.

Our current patent positions and license portfolio may not include all patent rights needed for the full development and commercialization of our product candidates. We cannot be sure that patent rights we may need in the future will be available for license to us on commercially reasonable terms, or at all.

We typically develop our product candidates using compounds for which we have in-licensed and original composition of matter patents and patents that claim the activities and methods for such compounds production and use to the extent known at that time. As we learn more about the mechanisms of action and new methods of manufacture and use of these product candidates, we may file additional patent applications for these new inventions or we may need to ask our licensors to file them. We may also need to license additional patent rights or other rights on compounds, treatment methods or manufacturing processes because we learn that we need such rights during the continuing development of our product candidates.

Although our in-licensed and original patents may prevent others from making, using or selling similar products, they do not ensure that we will not infringe the patent rights of third parties. We may not be aware of all patents or patent applications that may impact our ability to make, use or sell any of our product candidates or proposed product candidates. For example, because we sometimes identify the mechanism of action or molecular target of a given product candidate after identifying its composition of matter and therapeutic use, we may not be aware until the mechanism or target is further elucidated that a third party has an issued or pending patent claiming biological activities or targets that may cover our product candidate. U.S. patent applications filed after November 29, 2000 are confidential in the U.S. Patent and Trademark Office for the first 18 months after such applications earliest priority date, and patent offices in non-U.S. countries often publish patent applications for the first time six months or more after filing. Furthermore, we may not be aware of published or granted conflicting patent rights. Any conflicts resulting from patent applications and patents of others could significantly reduce the coverage of our patents and limit our ability to obtain meaningful patent protection. If others obtain patents with conflicting claims, we may need to obtain licenses to these patents or to develop or obtain alternative technology.

We may not be able to obtain any licenses or other rights to patents, technology or know-how from third parties necessary to conduct our business as described in this report and such licenses, if available at all, may not be available on commercially reasonable terms. Any failure to obtain such licenses could delay or prevent us from developing or commercializing our drug candidates or proposed product candidates, which would harm our business. Litigation or patent interference proceedings may be necessarily brought against third parties, as discussed below, to enforce any of our patents or other proprietary rights or to determine the scope and validity or enforceability of the proprietary rights of such third parties.

Litigation regarding patents, patent applications and other proprietary rights may be expensive and time consuming. If we are involved in such litigation, it could cause delays in bringing product candidates to market and harm our ability to operate.

Our commercial success will depend in part on our ability to manufacture, use, sell and offer to sell our product candidates and proposed product candidates without infringing patents or other proprietary rights of third parties. Although we are not currently aware of any litigation or other proceedings or third-party claims of intellectual

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property infringement related to our product candidates, the pharmaceutical industry is characterized by extensive litigation regarding patents and other intellectual property rights. Other parties may obtain patents in the future and allege that the use of our technologies infringes these patent claims or that we are employing their proprietary technology without authorization. Likewise, third parties may challenge or infringe upon our or our licensors existing or future patents.

Proceedings involving our patents or patent applications or those of others could result in adverse decisions regarding the patentability of our inventions relating to our product candidates or the enforceability, validity or scope of protection offered by our patents relating to our product candidates.

Even if we are successful in these proceedings, we may incur substantial costs and divert management time and attention in pursuing these proceedings. If we are unable to avoid infringing the patent rights of others, we may be required to seek a license, defend an infringement action or challenge the validity of the patents in court. Patent litigation is costly and time-consuming. We may not have sufficient resources to bring these actions to a successful conclusion. In addition, if we do not obtain a license, develop or obtain non-infringing technology, fail to defend an infringement action successfully or have our patents declared invalid, we may incur substantial monetary damages; encounter significant delays in bringing our product candidates to market; or be precluded from participating in the manufacture, use or sale of our product candidates or methods of treatment requiring licenses.

Risks Related to the Securities Markets and Investment in Our Common Stock

Market volatility may affect our stock price and the value of your investment.

The market price for our common stock has been, and is likely to continue to be, volatile. In addition, the market price of our common stock may fluctuate significantly in response to a number of factors, most of which we cannot predict or control, including:

- plans for, progress in and results from clinical studies for varespladib, A-623, A-001 and our other product candidates;
- announcements of new products, services or technologies, commercial relationships, acquisitions or other events by us or our competitors;
- developments concerning proprietary rights, including those pertaining to patents held by Eli Lilly and Shionogi & Co., Ltd. concerning our $sPLA_2$ inhibitors and Amgen concerning A-623;
- failure of any of our product candidates, if approved, to achieve commercial success;
- fluctuations in stock market prices and trading volumes of securities of similar companies;
- general market conditions and overall fluctuations in U.S. equity markets;
- variations in our operating results, or the operating results of our competitors;
- changes in our financial guidance or securities analysts estimates of our financial performance;
- changes in accounting principles;

sales of large blocks of our common stock, including sales by our executive officers, directors and significant stockholders;

additions or departures of any of our key personnel;

announcements related to litigation;

changing legal or regulatory developments in the United States and other countries; and

discussion of us or our stock price by the financial press and in online investor communities.

Although our common stock is listed for trading on the NASDAQ Global Market, our securities have been relatively thinly traded. Investor trading patterns could serve to exacerbate the volatility of the price of the stock. Accordingly, it may be difficult to sell shares of common stock quickly without significantly depressing the value of the stock. Unless we are successful in developing continued investor interest in our stock, sales of our stock could result in major fluctuations in the price of the stock. In addition, the stock market in general, and The NASDAQ Global Market in particular, have experienced substantial price and volume volatility that is often seemingly unrelated to the operating performance of particular companies. These broad market fluctuations may cause the

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trading price of our common stock to decline. In the past, securities class action litigation has often been brought against a company after a period of volatility in the market price of its common stock. We may become involved in this type of litigation in the future. Any securities litigation claims brought against us could result in substantial expenses and the diversion of our management s attention from our business.

Because a small number of our existing stockholders own a majority of our voting stock, your ability to influence corporate matters will be limited.

Our executive officers, directors and greater than 5% stockholders, in the aggregate, own approximately 75% of our outstanding common stock. As a result, such persons, acting together, will have the ability to control our management and affairs and substantially all matters submitted to our stockholders for approval, including the election and removal of directors and approval of any significant transaction. These persons will also have the ability to control our management and business affairs. This concentration of ownership may have the effect of delaying, deferring or preventing a change in control, impeding a merger, consolidation, takeover or other business combination involving us, or discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control of our business, even if such a transaction would benefit other stockholders.

Future sales of our common stock may cause our stock price to decline.

As of December 31, 2010, there were 32,880,353 shares of our common stock outstanding. In addition, as of December 31, 2010, we had outstanding options to purchase shares of our common stock and restricted stock units of 1,578,491 that, if exercised or released, will result in these additional shares becoming available for sale. A large portion of these shares and outstanding equity awards are held by a small number of persons and investment funds. Sales by these stockholders or option holders of a substantial number of shares could significantly reduce the market price of our common stock. Moreover, certain holders of shares of common stock will have rights, subject to some conditions, to require us to file registration statements covering the shares they currently hold, or to include these shares in registration statements that we may file for ourselves or other stockholders.

We have registered all common stock that we may issue under our Amended and Restated 2010 Stock Option and Incentive Plan (the 2010 Plan) and our Employee Stock Purchase Plan (the ESPP). As of February 28, 2011, an aggregate of 1,778,261 shares of our common stock has been reserved for future issuance under the 2010 Plan, plus any shares reserved and unissued under our 2005 Equity Incentive Plan, and an aggregate of 350,000 shares has been reserved for future issuance under our ESPP. These shares can be freely sold in the public market upon issuance, subject to the lock-up agreements referred to above. If a large number of these shares are sold in the public market, the sales could reduce the trading price of our common stock.

We may need to raise additional capital to fund our operations, which may cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights.

We may seek additional capital through a combination of private and public equity offerings, debt financings and collaboration, strategic and licensing arrangements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest may be diluted, and the terms may include liquidation or other preferences that adversely affect your rights as a stockholder. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions such as incurring debt, making capital expenditures or declaring dividends. If we raise additional funds through collaboration, strategic alliance and 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.

Operating as a public company increases our expenses and administrative burden.

As a public company, we incur significant legal, accounting and other expenses that we did not incur as a private company. In addition, our administrative staff will be required to perform additional tasks. For example, the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, as well as rules subsequently implemented by the Securities and Exchange Commission, or SEC, and The NASDAQ Global Market, impose various requirements on public companies, including establishment and maintenance of effective disclosure and financial controls and changes in corporate governance practices. We must also bear all of the internal and external costs of preparing and distributing periodic public reports in compliance with our obligations under the securities laws.

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In particular, the Sarbanes-Oxley Act requires, among other things, that we maintain effective internal control over financial reporting and disclosure controls and procedures. Commencing in 2011, we must perform system and process evaluation and testing of our internal control over financial reporting to allow management and our independent registered public accounting firm to report on the effectiveness of our internal control over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act. Our compliance with Section 404 will require that we incur substantial accounting expense and expend significant management time on compliance-related issues. Moreover, if we are not able to comply with the requirements of Section 404 in a timely manner, our stock price could decline, and we could face sanctions, delisting or investigations by The NASDAQ Global Market, or other material adverse effects on our business, reputation, results of operations, financial condition or liquidity.

We do not intend to pay dividends on our common stock so any returns will be limited to the value of our stock.

We have never declared or paid any cash dividend on our common stock. We currently anticipate that we will retain future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. Any return to stockholders will therefore be limited to the value of their stock.

Anti-takeover provisions in our charter documents and under Delaware law could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws may delay or prevent an acquisition of us or a change in our management. These provisions include:

- a classified and staggered board of directors whose members can only be dismissed for cause;
- the prohibition on actions by written consent of our stockholders;
- the limitation on who may call a special meeting of stockholders;
- the establishment of advance notice requirements for nominations for election to our board of directors or for proposing matters that can be acted upon at stockholder meetings;
- the ability of our board of directors to issue preferred stock without stockholder approval, which would increase the number of outstanding shares and could thwart a takeover attempt; and
- the requirement of at least 75% of the outstanding common stock to amend any of the foregoing provisions.

In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which limits the ability of stockholders owning in excess of 15% of our outstanding voting stock to merge or combine with us. Although we believe these provisions collectively provide for an opportunity to obtain greater value for stockholders by requiring potential acquirors to negotiate with our board of directors, they would apply even if an offer rejected by our board were considered beneficial by some stockholders. In addition, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, which is responsible for appointing the members of our management.

Our ability to use our net operating loss carryforwards may be subject to limitation and may result in increased future tax liability to us.

Generally, a change of more than 50% in the ownership of a corporation s stock, by value, over a three-year period constitutes an ownership change for U.S. federal income tax purposes. An ownership change may limit a company s ability to use its net operating loss carryforwards attributable to the period prior to such change. We have not performed a detailed analysis to determine whether an ownership change under Section 382 of the Internal Revenue Code has occurred after each of our previous private placements of preferred stock and convertible debt, or our previous issuances of common stock, which if sufficient, taking into account prior or future shifts in our ownership over a three-year period, could cause us to undergo an ownership change. As a result, if we earn net taxable income, our ability to use our pre-change net operating loss carryforwards to offset U.S. federal taxable income may become subject to limitations, which could potentially result in increased future tax liability to us.

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ITEM 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 2. PROPERTIES

We are currently subleasing approximately 7,800 square feet of office space in Hayward, California, which we occupy under a sublease that commenced on October 1, 2008 and expired on January 31, 2011. In January 2011, we renewed our sublease through July 31, 2011. We believe our existing facilities are adequate for our current needs and that any additional space we need will be available in the future on commercially reasonable terms.

ITEM 3. LEGAL PROCEEDINGS

From time to time, we may be involved in routine legal proceedings, as well as demands, claims and threatened litigation, which arise in the normal course of our business. We believe there is no litigation pending that could, individually or in the aggregate, have a material adverse effect on our results of operations or financial condition.

ITEM 4. REMOVED AND RESERVED

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PART II

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

Price Range of Common Stock

Our common stock has been listed on The NASDAQ Global Market under the symbol ANTH since our IPO. Prior to that offering, there was no public market for our common stock. The following table sets forth, for the periods indicated, the high and low intraday sales prices of our common stock as reported by The NASDAQ Global Market:

	High	Low
First Quarter 2010 (beginning March 1, 2010)	$ 7.39	$ 6.86
Second Quarter 2010	$ 8.55	$ 5.07
Third Quarter 2010	$ 5.99	$ 2.82
Fourth Quarter 2010	$ 6.90	$ 4.12

Holders of our Common Stock

As of December 31, 2010, an aggregate of 32,880,353 shares of our common stock were issued and outstanding and were held by approximately 850 holders of record and beneficial holders, based on information provided by the Company s transfer agent.

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Performance Graph

The following graph shows a comparison of cumulative total return of our common stock, the NASDAQ Composite Index and the Nasdaq Biotech Index from March 1, 2010 (the date of our IPO) through December 31, 2010. The graph and table assume that $100 was invested on March 1, 2010 in each of our common stock, the NASDAQ Composite Index and the NASDAQ Biotech Index, and that all dividends were reinvested. The past performance of our common stock is no indication of future performance.

COMPARISON OF TOTAL RETURN
Among Anthera Pharmaceuticals, Inc., The NASDAQ Composite Index
And The NASDAQ Biotech Index

	3/1/2010	3/31/2010	6/30/2010	9/30/2010	12/31/2010
Anthera Pharmaceuticals, Inc.	$ 100.00	$ 99.71	$ 76.46	$ 59.77	$ 69.61
Nasdaq Composite	$ 100.00	$ 105.47	$ 92.77	$ 104.18	$ 116.68
Nasdaq Biotech	$ 100.00	$ 104.08	$ 88.66	$ 99.24	$ 107.53

Dividend Policy

We have never declared or paid any cash dividends on our common stock. We currently intend to retain any future earnings to finance the growth and development of our business. Therefore, we do not anticipate declaring or paying any cash dividends in the foreseeable future. Any future determination as to the declaration and payment of dividends, if any, will be at the discretion of our board of directors and will depend on then existing conditions, including our financial condition, operating results, contractual restrictions, capital requirements, business prospects and other factors our board of directors may deem relevant.

Securities Authorized for Issuance under Equity Compensation Plans

The information regarding securities authorized for issuance under equity compensation plans is included in Part III of this report.

Recent Sales of Unregistered Securities

All information under this Item has been previously reported on our Current Report on Form 8-K, filed with the Securities and Exchange Commission (the SEC) on September 22, 2010.

Issuer Purchases of Equity Securities

We did not repurchase any securities in the fourth quarter of 2010.

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ITEM 6. SELECTED FINANCIAL DATA

	Year Ended December 31,					Cumulative Period from September 9 2004 (Date of Inception) to December 31, 2010
	2010	2009	2008	2007	2006	
Statement of Operations Data:						
Operating expenses						
Research and development	$ 29,456,742	$ 8,415,414	$ 10,882,322	$ 23,921,932	$ 7,759,106	$ 80,780,723
General and administrative	6,300,849	3,425,690	2,980,170	2,468,607	822,732	16,218,416
Total operating expenses	(35,757,591)	(11,841,104)	(13,862,492)	(26,390,539)	(8,581,838)	(96,999,139)
Other Income (Expense)						
Other expense and interest income, net	(859,733)	(362,388)	(118,174)	696,962	92,592	(539,593)
Mark-to-market adjustment of warrant liability	(3,796,491)					(3,796,491)
Beneficial conversion feature			(4,118,544)		(190,000)	(4,308,544)
Total other income (expense)	(4,656,224)	(362,388)	(4,236,718)	696,962	(97,408)	(8,644,628)
Net loss	$ (40,413,815)	$ (12,203,492)	$ (18,099,210)	$ (25,693,577)	$ (8,679,246)	$ (105,643,767)
Net loss per share basic and diluted(1)	$ (1.76)	$ (8.06)	$ (13.47)	$ (28.15)	$ (13.82)	
Weighted-average number of shares used in per share calculation basic and diluted(2)	22,909,802	1,513,598	1,343,420	912,668	627,904	

(1)

Diluted earnings per share, or EPS, is identical to basic EPS since common equivalent shares are excluded from the calculation, as their effect is anti-dilutive.

(2) For accounting purposes only, the number of issued and outstanding shares for the years ended December 31, 2006, 2007, 2008, 2009 and 2010 do not include weighted-average shares of unvested stock of 297,596, 261,649, 230,028, 110,079 and 47,654, respectively. These shares are subject to a risk of repurchase by us until such shares are vested. See Note 2 of our financial statements for more information.

	As of December 31,				
	2010	**2009**	**2008**	**2007**	**2006**
Balance Sheet Data:					
Cash and cash equivalents	$ 40,029,972	$ 3,803,384	$ 7,895,113	$ 152,744	$ 20,781,916
Short-term investments	23,350,922			5,825,000	
Working capital	57,240,395	(14,344,436)	(495,836)	(2,907,995)	19,629,639
Total assets	65,263,062	5,888,789	8,034,154	6,193,213	20,856,892
Total liabilities	8,005,382	18,167,645	8,494,417	12,058,184	1,174,621
Convertible preferred stock		52,123,859	52,123,859	28,892,004	28,892,004
Deficit accumulated during the development stage	(105,643,767)	(65,229,952)	(53,026,460)	(34,927,250)	(9,233,673)
Total stockholders (deficit) equity	57,257,680	(12,278,856)	(460,263)	(5,864,971)	19,682,271

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

The following discussion and analysis should be read together with our financial statements and the related notes set forth under Item 8. Financial Statements and Supplementary Data. This discussion contains forward-looking statements reflecting our current expectations that involve risks and uncertainties. See Special Note Regarding Forward-Looking Statements for a discussion of the uncertainties, risks and assumptions associated with these statements. Actual results and the timing of events could differ materially from those discussed in our forward-looking statements as a result of many factors, including those set forth under Risk Factors and elsewhere in this report.

Overview

We are a biopharmaceutical company focused on developing and commercializing products to treat serious diseases associated with inflammation, including cardiovascular and autoimmune diseases. We currently have one Phase 3 clinical program, varespladib, and two Phase 2 clinical programs, A-623 and A-001. Two of our product candidates, varespladib and A-001, are designed to inhibit a novel enzyme target known as secretory phospholipase A_2, or $sPLA_2$. Elevated levels of $sPLA_2$ have been implicated in a variety of acute inflammatory conditions, including acute coronary syndrome and acute chest syndrome associated with sickle cell disease, as well as in chronic diseases, including stable coronary artery disease. In addition, our Phase 2 product candidate, A-623, targets elevated levels of B-cell activating factor, or BAFF, which has been associated with a variety of B-cell mediated autoimmune diseases, including systemic lupus erythematosus, or lupus, lupus nephritis, rheumatoid arthritis, multiple sclerosis, Sjögren s Syndrome, Graves Disease and others.

We were incorporated and commenced operations in September 2004. Since our inception, we have generated significant losses. As of December 31, 2010, we had an accumulated deficit of approximately $105.6 million. As of the date of this filing, we have never generated any revenue and have generated only interest income from cash and cash equivalents and short-term investments. We expect to incur substantial and increasing losses for at least the next several years as we pursue the development and commercialization of our product candidates.

To date, we have funded our operations through equity offerings and private placements of convertible debt, raising an aggregate of approximately $145.7 million. We will need substantial additional financing to continue to develop our product candidates, obtain regulatory approvals and to fund operating expenses, which we will seek to raise through public or private equity or debt financings, collaborative or other arrangements with third parties or through other sources of financing. We cannot assure you that such funds will be available on terms favorable to us, if at all. In addition to the normal risks associated with development-stage companies, we may never successfully complete development of any of our product candidates, obtain adequate patent protection for our technology, obtain necessary government regulatory approval for our product candidates or achieve commercial viability for any approved product candidates. In addition, we may not be profitable even if we succeed in commercializing any of our product candidates.

Revenue

To date, we have not generated any revenue. We do not expect to generate revenue unless or until we obtain regulatory approval of, and commercialize, our product candidates or in- license additional products that generate revenue. We intend to seek to generate revenue from a combination of product sales, up-front fees and milestone payments in connection with collaborative or strategic relationships and royalties resulting from the licensing of the commercial rights to our intellectual property. We expect that any revenue we generate will fluctuate from quarter to quarter as a result of the nature, timing and amount of milestone payments we may receive upon the sale of our products, to the extent any are successfully commercialized, as well as any revenue we may receive from our

collaborative or strategic relationships.

Research and Development Expenses

Since our inception, we have focused our activities on our product candidate development programs. We expense research and development costs as they are incurred. Research and development expenses consist of personnel costs, including salaries, benefits and stock-based compensation, clinical studies performed by contract research organizations, or CROs, materials and supplies, licenses and fees and overhead allocations consisting of

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various administrative and facilities-related costs. Research and development activities are also separated into three main categories: licensing, clinical development and pharmaceutical development. Licensing costs consist primarily of fees paid pursuant to license agreements. Historically, our clinical development costs have included costs for preclinical and clinical studies. We expect to incur substantial clinical development costs for our Phase 3 clinical study named VISTA- 16 for varespladib and for our Phase 2b clinical study named PEARL-SC for A-623, as well as for the development of our other product candidates. Pharmaceutical development costs consist of expenses incurred relating to clinical studies and product formulation and manufacturing.

We expense both internal and external research and development costs as incurred. We are developing our product candidates in parallel, and we typically use our employee and infrastructure resources across several projects. Thus, some of our research and development costs are not attributable to an individually named project, but rather are allocated across our clinical stage programs. These unallocated costs include salaries, stock-based compensation charges and related fringe benefit costs for our employees (such as workers compensation and health insurance premiums), consulting fees and travel.

The following table shows our total research and development expenses for the years ended December 31, 2010, 2009 and 2008, and for the period from September 9, 2004 (Date of Inception) through December 31, 2010:

	Years Ended December 31,			For the Period September 9, 2004 (Date of Inception) to December 31,
	2010	2009	2008	2010
Allocated costs:				
A-001	$ (11,688)(1)	$ 192,979	$ 456,633	$ 6,508,358(1)
Varespladib	19,229,868(1)(2)	5,535,529	7,370,850	47,090,513(1)(2)(4)
A-623	5,826,475(3)	34,179	100,851	11,969,892(3)(5)
Unallocated costs	4,412,087	2,652,727	2,953,988	15,211,960
Total development	$ 29,456,742	$ 8,415,414	$ 10,882,322	$ 80,780,723

(1) Includes Qualifying Therapeutic Discovery Project Credit under Section 48D of approximately $244,000. See Note 2 of our financial statements for more information.

(2) Includes milestone payments of $3.5 million pursuant to amendments to the license agreements with each of Eli Lilly and Shionogi & Co. Ltd., which were paid in the form of shares of common stock.

(3) Includes Qualifying Therapeutic Discovery Project Credit under Section 48D of approximately $488,000. See Note 2 of our financial statements for more information.

(4) Includes license fees of $4.0 million pursuant to a license agreement with each of Eli Lilly and Shionogi & Co. Ltd., which were paid in cash and shares of preferred stock in 2006.

(5) Includes a one-time license initiation fee of $6.0 million pursuant to a license agreement with Amgen.

We expect our research and development expenses to increase significantly as we continue to develop our product candidates. We began enrollment of patients in the VISTA-16 study of varespladib for the treatment of patients experiencing acute coronary syndrome in June 2010. We also initiated the PEARL-SC study of A-623 in July 2010. We intend to fund our clinical studies with existing cash and proceeds from potential future debt and equity offerings.

We expect that a large percentage of our research and development expenses in the future will be incurred in support of our current and future clinical development programs. These expenditures are subject to numerous uncertainties in timing and cost to completion. As we obtain results from clinical studies, we may elect to discontinue or delay clinical studies for certain product candidates or programs in order to focus our resources on more promising product candidates or programs. Completion of clinical studies may take several years or more, but the length of time generally varies according to the type, complexity, novelty and intended use of a product candidate. The cost of clinical studies may vary significantly over the life of a program as a result of differences arising during clinical development, including:

the number of sites included in the studies;

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the length of time required to enroll suitable patient subjects;

the number of patients that participate in the studies;

the number of doses that patients receive;

the drop-out or discontinuation rates of patients; and

the duration of patient follow-up.

Our expenses related to clinical studies are based on estimates of the services received and efforts expended pursuant to contracts with multiple research institutions and clinical research organizations that conduct and manage clinical studies on our behalf. The financial terms of these agreements are subject to negotiation and vary from contract to contract and may result in uneven payment flows. Generally, these agreements set forth the scope of work to be performed at a fixed fee or unit price. Payments under the contracts depend on factors such as the successful enrollment of patients or the completion of clinical study milestones. Expenses related to clinical studies generally are accrued based on contracted amounts and the achievement of milestones such as number of patients enrolled. If timelines or contracts are modified based upon changes to the clinical study design or scope of work to be performed, we modify our estimates of accrued expenses accordingly on a prospective basis.

None of our product candidates has received U.S. Food and Drug Administration, or FDA, or foreign regulatory marketing approval. In order to grant marketing approval, the FDA or foreign regulatory agencies must conclude that clinical data establishes the safety and efficacy of our product candidates and that the manufacturing facilities, processes and controls are adequate. Despite our efforts, our product candidates may not offer therapeutic or other improvement over existing, comparable drugs, be proven safe and effective in clinical studies, or meet applicable regulatory standards.

As a result of the uncertainties discussed above, we are unable to determine the duration and completion costs of our development projects or when and to what extent we will receive cash inflows from the commercialization and sale of an approved product candidate, if ever.

General and Administrative Expenses

General and administrative expenses consist primarily of compensation for employees in executive and operational functions, including clinical, chemical manufacturing, regulatory, finance and business development. Other significant costs include professional fees for legal services, including legal services associated with obtaining and maintaining patents. We will continue to incur significant general and administrative expenses as a public company, including costs for insurance, costs related to the hiring of additional personnel, payment to outside consultants, lawyers and accountants and complying with the corporate governance, internal controls and similar requirements applicable to public companies.

Critical Accounting Policies and Estimates

Our management s discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States, or GAAP. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities and expenses. On an ongoing basis, we evaluate these estimates and judgments, including those described below. We base our estimates on our historical experience and on various other

assumptions that we believe to be reasonable under the circumstances. These estimates and assumptions form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results and experiences may differ materially from these estimates.

While our significant accounting policies are more fully described in the accompanying notes to the financial statements, we believe that the following accounting policies are the most critical to aid you in fully understanding and evaluating our reported financial results and affect the more significant judgments and estimates that we use in the preparation of our financial statements.

Accrued Clinical Expenses

As part of the process of preparing our financial statements, we are required to estimate our accrued expenses. This process involves reviewing open contracts and purchase orders, communicating with our applicable personnel

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to identify services that have been performed on our behalf and estimating the level of service performed and the associated cost incurred for the service when we have not yet been invoiced or otherwise notified of actual cost. 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 CROs 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 study materials; and

fees paid to vendors in connection with the preclinical development activities.

We base our expenses related to clinical studies on our estimates of the services received and efforts expended pursuant to contracts with multiple research institutions and CROs 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 study 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. If we do not identify costs that we have begun to incur or if we underestimate or overestimate the level of services performed or the costs of these services, our actual expenses could differ from our estimates.

Stock-Based Compensation

Effective January 1, 2006, we adopted the provisions of FASB ASC 718, *Compensation Stock Compensation*, using the modified prospective method. Compensation costs related to all equity instruments granted after January 1, 2006 are recognized at the grant-date fair value of the awards. Additionally, we are required to include an estimate of the number of awards that will be forfeited in calculating compensation costs, which are recognized over the requisite service period of the awards on a straight-line basis. We account for stock-based compensation using the Black-Scholes option pricing model to estimate the fair value of each option grant on the date of grant. Black-Scholes option pricing model requires the input of highly subjective assumptions, including the expected stock price volatility, expected term, and forfeiture rate. Any changes in these highly subjective assumptions significantly impact stock-based compensation expense.

As of December 31, 2010, 1,578,491 shares of our common stock were issuable upon exercise of stock options and release of restricted stock units.

Fair Value Measurements and Impairments

All of our available-for-sale investments are subject to periodic impairment review. Investments are considered to be impaired when a decline in fair value is judged to be other-than-temporary. This determination requires significant judgment. For publicly traded investments, impairment is determined based upon the specific facts and circumstances present at the time, including factors such as current economic and market conditions, the credit rating of the security s issuer, the length of time an investment s fair value has been below our carrying value, and our ability and intent to hold investments to maturity or for a period of time sufficient to allow for any anticipated recovery in fair value. If an investment s decline in fair value, caused by factors other than changes in interest rates, is deemed to be

other-than-temporary, we reduce its carrying value to its estimated fair value, as determined based on quoted market prices, liquidation values or other metrics.

Pursuant to the accounting guidance for fair value measurement and its subsequent updates, fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (i.e., the exit price) in an orderly transaction between market participants at the measurement date. The accounting guidance establishes a hierarchy for inputs used in measuring fair value that minimizes the use of unobservable inputs by requiring the use of observable market data when available. Observable inputs are inputs that market participants would use in pricing the asset or liability based on active market data. Unobservable inputs are inputs that reflect the assumptions market participants would use in pricing the asset or liability based on the best information available in the circumstances.

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The fair value hierarchy is broken down into the three input levels summarized below:

Level 1 Valuations are based on quoted prices in active markets for identical assets or liabilities, and readily accessible by us at the reporting date. Examples of assets and liabilities utilizing Level 1 inputs are certain money market funds, U.S. Treasuries and trading securities with quoted prices on active markets.

Level 2 Valuations based on inputs other than the quoted prices in active markets that are observable either directly or indirectly in active markets. Examples of assets and liabilities utilizing Level 2 inputs are U.S. government agency bonds, corporate bonds, commercial paper, certificates of deposit and over-the-counter derivatives.

Level 3 Valuations based on unobservable inputs in which there is little or no market data, which require us to develop our own assumptions. Examples of assets and liabilities utilizing Level 3 inputs are cost method investments, auction rate securities (ARS) and the Primary Fund.

We measure our available-for-sale securities at fair value on a recurring basis. Available-for-sale securities include U.S. Treasury securities, U.S. government agency bonds, corporate bonds, commercial paper, money market funds and certificates of deposit. Where possible, we utilize quoted market prices to measure and such items are classified as Level 1 in the hierarchy. When quoted market prices for identical assets are unavailable, varying valuation techniques are used. Such assets are classified as Level 2 or Level 3 in the hierarchy. We classify items in Level 2 if investments are valued using observable inputs to quoted market prices, benchmark yields, reported trades, broker/dealer quotes or alternative pricing sources with reasonable levels of price transparency. We classify items in Level 3 if investments are valued using a pricing model, based on unobservable inputs in the market or that require us to develop our own assumptions. Our assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment and considers factors specific to the investment.

We are also exposed to market risk relating to our available-for-sale investments due to uncertainties in the credit and capital markets. The fair value of our investments may change significantly due to events and conditions in the credit and capital markets. These securities/issuers could be subject to review for possible downgrade. Any downgrade in these credit ratings may result in an additional decline in the estimated fair value of our investments. We monitor and evaluate the accounting for our investment portfolio on a quarterly basis for additional other-than-temporary impairment charges.

We actively review current investment ratings, company specific events, and general economic conditions in managing our investments and determining whether there is a significant decline in fair value that is other-than-temporary. As of December 31, 2010 our short-term in marketable securities have been classified as available-for-sale and are carried at fair value. Available-for-sale investments with original maturities of greater than three months at the date of purchases are classified as short-term investments as these investments generally consist of marketable securities that are intended to be available to meet current cash requirements.

Recognized gains and losses on available for sale investments during 2010, 2009 and 2008 were not material. Management determines the appropriate classification of investments at the time of purchase and reevaluates the classification at each reporting date.

Comprehensive Income (Loss)

Comprehensive income (loss) consists of other comprehensive income and net loss. Other comprehensive income includes certain changes in equity that are excluded from net income (loss). Specifically, the Company includes unrealized gains (losses) on available for sale securities in other comprehensive income (loss). Comprehensive income

(loss) for each period presented is set forth in the Statement of Stockholders Equity (Deficit) and Comprehensive Loss.

Results of Operations

Comparison of Years Ended December 31, 2010 and 2009

Research and development expenses. Research and development expenses consist of personnel costs for employees in clinical, chemical manufacturing and regulatory functions, clinical studies performed by CROs, pharmaceutical development costs including product formulation and manufacturing, preclinical costs, license fees and overhead allocations consisting of various administrative and facilities-related costs.

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Change in research and development expenses from the years ended December 31, 2009 to 2010 (in millions):

	2010	2009	$ Change	% Change
Research and development expense	$ 29.4	$ 8.4	$ 21.0	250%

The increase in research and development expenses from 2009 to 2010 was primarily attributable to the recognition of a $3.5 million non-cash charge related to milestone payments recorded in connection with the initiation of our Phase 3 clinical study of varespladib, which was paid through the issuance of 531,914 shares of common stock; and increased CRO and manufacturing cost related to the launch of our Phase 3 clinical study of varespladib and Phase 2 clinical study of A-623, as well as increased headcount to support these clinical studies.

General and administrative expenses. General and administrative expenses consist of personnel costs for employees in executive, business development and operational functions, professional service fees including corporate legal fees, accountant fees and overhead allocations consisting of various administrative and facilities-related costs.

Change in general and administrative expenses from the years ended December 31, 2009 to 2010 (in millions):

	2010	2009	$ Change	% Change
General and administrative expense	$ 6.3	$ 3.4	$ 2.9	85%

The increase in general and administrative expenses from 2009 to 2010 was primarily attributable to increased headcount and professional services incurred in connection with our financial audit and other costs associated with operating as a public company.

Other expense and interest income, net. Other expense consists of primarily non-cash charge related to the amortization of discounts, mark-to-market adjustment relating to warrants and embedded derivative associated with our convertible promissory notes issued in July and September of 2009, which were converted into shares of our common stock upon the closing of our IPO in March 2010. Interest income consists of interest earned on our cash, cash equivalents and short-term investments.

Change in other expense and interest income, net, from the years ended December 31, 2009 to 2010 (in millions):

	2010	2009	$ Change	% Change
Other expense and interest income, net	$ (0.9)	$ (0.4)	$ (0.6)	138%
Mark-to-market adjustment of warrant liability	$ (3.8)		$ (3.8)	100%

The increase in other expense and interest income, net, from 2009 to 2010 was primarily attributable to a non-cash charge of $4.5 million recorded for the amortization of discounts on our convertible promissory notes and the mark-to-market adjustment relating to warrants and embedded derivative connected to these convertible promissory notes. The balance was offset by interest income from 2009 to 2010 attributable to higher cash and investment

balances in 2010 resulting from proceeds received from our IPO in March 2010, the exercise in April 2010 of the overallotment option by our underwriters in connection with our IPO, and the private placement offering in September.

Comparison of Years Ended December 31, 2009 and 2008

Research and development expenses. The decrease in research and development expenses from 2008 to 2009 was primarily attributable to decreased activity in our Phase 2 clinical study designed to examine the impact of varespladib when administered to patients within 96 hours of an acute coronary syndrome event in the third quarter of 2009 as the study progressed toward completion.

Change in research and development expenses from the years ended December 31, 2008 to 2009 (in millions):

	2009	2008	$ Change	% Change
Research and development expense	$ 8.4	$ 10.9	$ (2.5)	(23)%

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General and administrative expenses. The increase in general and administrative expenses from 2008 to 2009 was primarily attributable to expenses relating to the expansion of our intellectual property portfolio.

Change in general and administrative expenses from the years ended December 31, 2008 to 2009 (in millions):

	2009	2008	$ Change	% Change
General and administrative expense	$ 3.4	$ 3.0	$ 0.4	13%

Other expense and interest income, net. The increase in other expense and interest income, net, from 2008 to 2009 was primarily attributable to interest accrued for convertible promissory notes and amortization of note discount and debt issuance cost.

Change in other expense and interest income, net, from the years ended December 31, 2008 to 2009 (in millions):

	2009	2008	$ Change	% Change
Other expense and interest income, net	$ (0.4)	$ (0.1)	$ 0.3	200%

Beneficial conversion feature. In connection with the issuance of convertible promissory notes in 2008, we recorded expense related to the beneficial conversion feature of the notes in the amount of $4.1 million for the year ended December 31, 2008. The expense was amortized from the issuance date of the notes to the date of their conversion into shares of Series B-2 convertible preferred stock in August 2008. No such expense was recognized in 2009 and 2010.

Liquidity and Capital Resources

To date, we have funded our operations primarily through private placements of preferred stock and common stock, convertible debt and our IPO. As of December 31, 2010, we had received net proceeds of approximately $119.5 million from the sale of equity securities and approximately $26.2 million from the issuance of convertible promissory notes. As of December 31, 2010, we had cash, cash equivalents and short-term investments of approximately $63.4 million.

Cash, cash equivalents and investments consist of the following:

	2010	2009
Cash and cash equivalents	$ 40,029,972	$ 3,803,384
Short-term investments	23,350,922	
Total	$ 63,380,894	$ 3,803,384

Our principal liquidity requirements are primarily to meet our working capital needs, support ongoing business activities, research and development, and our capital expenditure needs.

Cash Flows

Year ended December 31, 2010

For the year ended December 31, 2010, we incurred a net loss of approximately $40.4 million.

Net cash used in operating activities was approximately $27.8 million. The net loss is higher than cash used in operating activities by $12.6 million. The primary drivers for the difference are adjustments for non-cash charges such as stock-based compensation of approximately $702,000, amortization of note discount and debt issuance cost of approximately $769,000, issuance of $3.5 million worth of common stock in lieu of cash milestone payments due to Eli Lilly and Shionogi & Co., Ltd., the conversion of approximately $300,000 of accrued interest into shares of common stock upon conversion of certain convertible promissory notes, mark-to-market adjustments relating to warrant and derivative liability of $3.8 million, and increase in net operating assets and liabilities of approximately $3.6 million.

Net cash used by investing activities was $23.4 million and was primarily driven by the purchase of short-term investments during the period.

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Net cash provided by financing activities was approximately $87.5 million and consisted of proceeds of $61.2 million received from the issuance of common stock at our IPO, the exercise of the overallotment option by our underwriters in connection with our IPO, the release of funds held in an escrow account concurrent with the closing of our IPO, proceeds of $29.6 million received from the issuance of common stock and warrants in connection with the September private placement offering, and proceeds of approximately $200,000 received from the exercise of stock options and issuance of common stock through our ESPP, offset by approximately $3.5 million of issuance cost paid during the period.

Year Ended December 31, 2009

For the year ended December 31, 2009, we incurred a net loss of approximately $12.2 million.

Net cash used in operating activities was approximately $17.2 million. The net loss is higher than cash used in operating activities by $5.0 million. The primary drivers for the difference are adjustments for non-cash charges such as depreciation of $18,000, stock-based compensation of approximately $342,000 and amortization of note discount and debt issuance cost of approximately $216,000, a decrease in current liabilities of approximately $598,000 primarily due to payments made to CROs for the achievement of clinical milestones and a $5.0 million license fee payment made to Amgen.

Net cash provided by financing activities was approximately $13.0 million and consisted of net proceeds of $13.3 million received from the issuance of convertible promissory notes, partially offset by approximately $274,000 in expense paid in connection with our IPO.

Contractual Obligations and Commitments

The following table summarizes our long-term contractual obligations and commitments as of December 31, 2010:

	Payments Due by Period				
	Total	Less Than 1 Year	1-3 Years	3-5 Years	After 5 Years
Operating lease obligations(1)	$ 15,594	$ 10,914	$ 4,680	$	$

(1) Operating lease obligations reflect our obligation to make payments in connection with a sublease that commenced in October 2008 and expired in January 2011, which sublease was subsequently extended through July 2011, for approximately 7,800 square feet of office space, and office equipment leases that commenced in October 2007 and will expire in June 2013.

The above amounts exclude potential payments to be made under our license agreements to our licensors that are based on the progress of our product candidates in development, as these payments are not determinable. Under our license agreement with Eli Lilly and Shionogi & Co., Ltd. to develop and commercialize certain $sPLA_2$ inhibitors, we are obligated to make additional milestone payments upon the achievement of certain development, regulatory, and commercial objectives. We are also obligated to pay royalties on future net sales of products that are developed and approved as defined by this collaboration. Our obligation to pay royalties with respect to each licensed product in each country will expire upon the later of (a) 10 years following the date of the first commercial sale of such licensed product in such country, and (b) the first date on which generic version(s) of the applicable licensed product achieve a total market share, in the aggregate, of 25% or more of the total unit sales of wholesalers to pharmacies of licensed

product and all generic versions combined in the applicable country.

Also excluded from the table above are potential milestone payments on the development of A-623. Under our license agreement with Amgen to develop and commercialize A-623, we are obligated to make additional milestone payments upon the achievement of certain development, regulatory, and commercial objectives. We are also obligated to pay royalties on future net sales of products that are developed and approved as defined by this collaboration. Our royalty obligations as to a particular licensed product will be payable, on a country-by-country and licensed product-by-licensed product basis, for the longer of (a) the date of expiration of the last to expire valid claim within the licensed patents that covers the manufacture, use or sale, offer to sell, or import of such licensed product by us or a sublicensee in such country, or (b) 10 years after the first commercial sale of the applicable licensed product in the applicable country.

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Funding Requirements

We expect to incur substantial expenses and generate significant operating losses as we continue to advance our product candidates into preclinical studies and clinical studies and as we:

- continue clinical development of the Phase 3 VISTA-16 study for varespladib;
- continue clinical development of the Phase 2b PEARL-SC study for A-623;
- hire additional clinical, scientific and management personnel; and
- implement new operational, financial and management information systems.

Our future capital uses and requirements depend on numerous forward-looking factors. These factors include the following:

- the progress of preclinical development and clinical studies of our product candidates;
- the time and costs involved in obtaining regulatory approvals;
- delays that may be caused by evolving requirements of regulatory agencies;
- the costs involved in filing and prosecuting patent applications and enforcing or defending patent claims;
- our ability to establish, enforce and maintain selected strategic alliances; and
- the acquisition of technologies, product candidates and other business opportunities that require financial commitments.

To date, we have not generated any revenue. We do not expect to generate revenue unless or until we obtain regulatory approval of, and commercialize, our product candidates. We expect our continuing operating losses to result in increases in cash used in operations over the next several years. Our future capital requirements will depend on a number of factors including the progress and results of our clinical studies, the costs, timing and outcome of regulatory review of our product candidates, our revenue, if any, from successful development and commercialization of our product candidates, the costs of commercialization activities, the scope, progress, results and costs of preclinical development, laboratory testing and clinical studies for other product candidates, the emergence of competing therapies and other market developments, the costs of preparing, filing and prosecuting patent applications and maintaining, enforcing and defending intellectual property rights, the extent to which we acquire or invest in other product candidates and technologies, and our ability to establish collaborations and obtain milestone, royalty or other payments from any collaborators.

We expect our existing resources as of the date of this report, to be sufficient to fund our planned operations, including our continued product candidate development, for at least the next 12 months. However, we may require significant additional funds earlier than we currently expect to conduct additional or extended clinical studies and seek regulatory approval of our product candidates. Because of the numerous risks and uncertainties associated with the development and commercialization of our product candidates, we are unable to estimate the amounts of increased capital outlays and operating expenditures associated with our current and anticipated clinical studies.

Additional funding may not be available to us on acceptable terms or at all. In addition, the terms of any financing may adversely affect the holdings or the rights of our stockholders. For example, if we raise additional funds by issuing equity securities or by selling debt securities, if convertible, further dilution to our existing stockholders may result. To the extent our capital resources are insufficient to meet our future capital requirements, we will need to finance our future cash needs through public or private equity offerings, collaboration agreements, debt financings or licensing arrangements.

If adequate funds are not available, we may be required to terminate, significantly modify or delay our development programs, reduce our planned commercialization efforts, or obtain funds through collaborators that may require us to relinquish rights to our technologies or product candidates that we might otherwise seek to develop or commercialize independently. We may elect to raise additional funds even before we need them if the conditions for raising capital are favorable.

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Off-Balance Sheet Arrangements

We do not currently have, nor have we ever had, any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. In addition, we do not engage in trading activities involving non-exchange traded contracts.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our primary exposure to market risk is interest income sensitivity, which is affected by changes in the general level of U.S. interest rates. We are exposed to market risk related to fluctuations in interest rates, market prices, and foreign currency exchange rates. However, since a majority of our investments are in short-term certificates of deposit, FDIC-insured corporate bonds and money market funds, we do not believe we are subject to any material market risk exposure. As of December 31, 2010, we did not have any material derivative financial instruments. The fair value of our marketable securities, including those included in cash equivalents and short-term investments, was $47.8 million as of December 31, 2010.

Our investment policy is to limit credit exposure through diversification and investment in highly rated securities. We actively review, along with our investment advisors, current investment ratings, company specific events and general economic conditions in managing our investments and in determining whether there is a significant decline in fair value that is other-than-temporary. We will monitor and evaluate the accounting for our investment portfolio on a quarterly basis for additional other-than-temporary impairment charges.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The financial statements required by this item are set forth beginning in Item 15 of this report and are incorporated herein by reference.

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

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our chief executive and financial officers, evaluated the effectiveness of our disclosures controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, as of December 31, 2010. The term disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company s management, including its principal executive and principal financial officers, as appropriate, to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible

controls and procedures. Based on the evaluation of our disclosure controls and procedures as of December 31, 2010, our principal executive officer and principal financial officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

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Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting during the year ended December 31, 2010 identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Management s Annual Report on Internal Control over Financial Reporting and Attestation Report of the Registered Accounting Firm

This annual report does not include a report of management s assessment regarding internal control over financial reporting or an attestation report of the company s registered public accounting firm due to a transition period established by rules of the Securities and Exchange Commission for newly public companies.

ITEM 9B. OTHER INFORMATION

Not applicable.

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PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Members of the Board of Directors

The biographies of our directors and their ages as of March 1, 2011 are set forth below.

Name	Age	Position
Paul F. Truex	42	Chief Executive Officer, President and Director
Christopher S. Henney, Ph.D.	70	Chairman of the Board of Directors
Annette Bianchi	52	Director
James I. Healy, M.D., Ph.D.	46	Director
Donald J. Santel	50	Director
Daniel K. Spiegelman	52	Director
David E. Thompson	63	Director
Peter A. Thompson, M.D.	51	Director

Our certificate of incorporation provides for a Board of Directors that is divided into three classes, categorized as Class I, Class II, and Class III. The term for each class is three years, staggered over time. Class I consists of Messrs. Santel and Thompson; Class II consists of Ms. Bianchi and Drs. Healy and Thompson; Class III consists of Dr. Henney and Messrs. Spiegelman and Truex.

Paul F. Truex. Mr. Truex has served as our President and Chief Executive Officer since our inception in September 2004 and as a member of our Board of Directors since November 2004. Prior to founding Anthera, Mr. Truex served as a Director, President and Chief Executive Officer of Peninsula Pharmaceuticals, Inc., a biopharmaceutical company, from the commencement of its operations in October 2001. Prior to Peninsula, Mr. Truex was Vice President of Commercial Development for Vicuron, Inc. from April 2000 to September 2001. From July 1997 to April 2000, Mr. Truex held various positions at Eli Lilly and Company. Mr. Truex holds an M.B.A. in marketing and finance from Indiana University and a B.A. in economics from the University of Waterloo. Mr. Truex is a director of Trius Therapeutics, Inc.

Christopher S. Henney, Ph.D. Dr. Henney has served as the Chairman of our Board of Directors since August 2008 and has been a member of our Board of Directors since April 2005. Dr. Henney served as Chairman and Chief Executive Officer of Dendreon Corporation, a biotechnology company he co-founded, from 1995 until his retirement in July 2004. Dr. Henney was previously a founder of Immunex Corp. and Icos Corp. Dr. Henney holds a B.Sc. with honors in medical biochemistry, a Ph.D. in experimental pathology and a D.Sc. for contributions to the field of immunology, all from the University of Birmingham, England. Dr. Henney served as a director of AVI BioPharma Inc. from March 2009 until June 2010 and is currently the Chairman and a director of Oncothyreon, Inc. and is vice-chairman and a director of Cyclacel Pharmaceuticals, Inc.

Annette Bianchi. Ms. Bianchi has served as a member of our Board of Directors since August 2006. Ms. Bianchi has served as a Managing Director at VantagePoint Venture Partners, a venture capital firm, since 2004. From 1999 to 2004, Ms. Bianchi served as a Managing Director at Pacific Venture Group, a dedicated health care fund. From 1992 to 1999, Ms. Bianchi served as a General Partner at Weiss, Peck & Greer Venture Partners, a venture capital firm.

From 1985 to 1992, Ms. Bianchi served as an associate and a General Partner of Burr, Egan, Deleage & Co., a venture capital firm. From 2005 through 2008, Ms. Bianchi served as a director of Conceptus Inc. Ms. Bianchi holds a B.S.E. and an M.S.E. in Biomedical Engineering from the University of Pennsylvania and an M.B.A. from The Wharton School of the University of Pennsylvania.

James I. Healy, M.D., Ph.D. Dr. Healy has served as a member of our Board of Directors since August 2006. Dr. Healy is a Managing Partner of Sofinnova Management VI, LLC, the general partner of Sofinnova Venture Partners VI, L.P., a fund managed by Sofinnova Ventures, Inc., a venture capital firm, a position he has held since June 2000. Prior to Sofinnova, Dr. Healy began his private equity career at Sanderling Ventures, and has been an early investor and board member of numerous biopharmaceutical companies. Dr. Healy holds a B.A. in molecular biology and a B.A. in Scandinavian studies from the University of California at Berkeley, an M.D. from Stanford

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University School of Medicine and a Ph.D. in immunology from Stanford University. Dr. Healy is a director of InterMune, Inc. and Amarin Corporation plc, both biopharmaceutical companies.

Donald J. Santel. Mr. Santel has served as a member of our Board of Directors since October 2007. From February 2000 until January 2007, Mr. Santel held various positions in and was a member of the board of directors of CoTherix, Inc., a pharmaceutical company he co-founded. From October 2003 to August 2004, Mr. Santel served as President and Chief Operating Officer of CoTherix and from August 2004 until January 2007, Mr. Santel served as Chief Executive Officer. From June 2008 through June 2009, Mr. Santel served as a consultant and from June 2009 until the present, Mr. Santel has served as the Chief Executive Officer of Hyperion Therapeutics, Inc., a pharmaceutical company. Mr. Santel holds a B.S.E. in biomedical engineering from Purdue University and an M.S. in electrical engineering from the University of Minnesota.

Daniel K. Spiegelman. Mr. Spiegelman has served as a member of our Board of Directors since February 2010. Currently, Mr. Spiegelman provides management and financial consulting services to biotechnology companies. From January 1998 to May 2009, Mr. Spiegelman served as Senior Vice President and Chief Financial Officer of CV Therapeutics, Inc., a biopharmaceutical company that was acquired by Gilead Sciences, Inc. in April 2009. From July 1991 to January 1998, Mr. Spiegelman served at Genentech, Inc., most recently as Treasurer. Mr. Spiegelman also serves on the board of directors of Affymax, Inc., Cyclacel Pharmaceuticals, Inc., Omeros Corporation and Oncothyreon, Inc., all of which are publicly-traded biopharmaceutical companies. Mr. Spiegelman also previously served on the board of directors of Xcyte Therapies, Inc. from 2003 through 2006, a publicly-traded company, until Cyclacel acquired Xcyte via reverse merger in 2006. Mr. Spiegelman holds a B.A. in economics from Stanford University and an M.B.A. from the Stanford Graduate School of Business.

David E. Thompson. Mr. Thompson has served as a member of our Board of Directors since November 2005. Mr. Thompson served as Vice President of Corporate Strategy Business Development for Eli Lilly and Company from January 2001 until his retirement in July 2005. Thereafter, he was a partner at VantagePoint Venture Partners from 2006 through 2008. Mr. Thompson holds a B.S. and an M.B.A. from Michigan State University.

Peter A. Thompson, M.D. Dr. Thompson has served as a member of our Board of Directors since February 2011. Dr. Thompson is currently a Venture Partner with OrbiMed Advisors, LLC and has over 20 years of industry experience. He co-founded Trubion Pharmaceuticals, and served as CEO and Chairman from its inception through its IPO on NASDAQ and as a public company until his retirement in 2009. Dr. Thompson is the former Vice President and General Manager of Chiron Informatics at Chiron Corporation and held various executive positions at Becton Dickinson, including Vice President, Research and Technology Department of BD Bioscience. Dr. Thompson is a co-founder of iMetrikus, a clinical decision support company, where he served as CEO and Chairman. He is the founder and Managing Director of Strategicon Partners, an investment and management services company. Dr. Thompson is an Ernst & Young Entrepreneur of the Year awardee, an inventor on numerous patents, a board-certified internist and oncologist, and was on staff at the National Cancer Institute following his internal medicine training at Yale University. Dr. Thompson served on the Board of Directors of Trubion Pharmaceuticals from 2006 through 2009 and currently serves on the Board of Directors for Response Biomedical and CoDa Therapeutics.

There are no family relationships between any of our directors or executive officers.

Code of Ethics

Our written Code of Ethics applies to all of our directors and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller or persons performing similar functions. The Code of Ethics is available on our website at http://www.anthera.com in the Investors section under Corporate

Governance.

Committees of the Board of Directors

The Board of Directors has determined each of the following current and former directors is an independent director as such term is defined in NASDAQ Marketplace Rule 5605(a)(2): Messrs. Santel, Spiegelman and Thompson, Drs. Henney, Healy, Rachel A. Leheny, and Thompson and Ms. Bianchi.

The Board of Directors has a standing Audit Committee, Compensation Committee, and Nominating and Corporate Governance Committee. Each of our Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee is composed entirely of independent directors in accordance with current Nasdaq

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listing standards. Furthermore, our Audit Committee meets the enhanced independence standards established by the Sarbanes-Oxley Act of 2002 and related rulemaking of the SEC. The Board of Directors has further determined that Daniel K. Spiegelman, a member of the Audit Committee of the Board of Directors, is an Audit Committee Financial Expert, as such term is defined in Item 407(d)(5) of Regulation S-K promulgated by the SEC. Copies of our Audit Committee, Nominating and Corporate Governance Committee and Compensation Committee charters and our corporate governance guidelines are available, free of charge, on our website at http://www.anthera.com.

Audit Committee. The Audit Committee appoints, approves the compensation of, and assesses the independence of our independent registered public accounting firm and pre-approves auditing and permissible non-audit services, and the terms of such services, to be provided by our independent registered public accounting firm. The Audit Committee is also responsible for reviewing and discussing with management and the independent registered public accounting firm our annual and quarterly financial statements and related disclosures and preparing the report required by the rules of the SEC to be included in our annual proxy statement. The Audit Committee also coordinates the oversight and reviews the adequacy of our internal controls over financial reporting and establishes policies and procedures for the receipt and retention of accounting-related complaints and concerns. Currently, the Audit Committee is comprised of Mr. Spiegelman (Chair), Mr. Santel and Dr. Thompson.

Compensation Committee s Role in Risk Management. Our Compensation Committee participates in the design of compensation structures that create incentives that encourage a level of risk-taking behavior consistent with the Company s business strategy.

Executive Officers

Set forth below are the names of each of our current executive officers, their ages as of March 1, 2011, their positions with the Company, and summaries of their backgrounds and business experience. (For information on the business experience of Mr. Truex, see the section above entitled Members of the Board of Directors.)

Name	Age	Position
Paul F. Truex	42	Chief Executive Officer, President and Director
Christopher P. Lowe	43	Chief Business Officer and Chief Financial Officer
Colin Hislop, M.D.	53	Senior Vice President and Chief Medical Officer
Debra Odink, Ph.D.	47	Senior Vice President, Pharmaceutical Research and Development
Georgina Kilfoil	42	Senior Vice President, Product Development and Clinical Operations

Christopher P. Lowe. Mr. Lowe has served as our Chief Business Officer since February 2011. Prior to that time and since November 2007, he served as our Chief Financial Officer and Vice President of Administration. Beginning in September 2005 and up until he joined the company, Mr. Lowe served as Vice President of Finance & Administration and, beginning in January 2006, as Chief Financial Officer of Asthmatx, Inc., a medical technology company. Previously, Mr. Lowe was with Peninsula Pharmaceuticals, Inc., as Corporate Controller from June 2004 to October 2004 and Chief Accounting Officer from October 2004 until June 2005. Mr. Lowe holds a B.S. in business administration from California Polytechnic State University, San Luis Obispo and an M.B.A. from Saint Mary s University, Texas. Mr. Lowe is a director of Hansen Medical Corporation, a medical device company.

Colin Hislop, M.D. Dr. Hislop has served as our Senior Vice President and Chief Medical Officer since June 2010. Prior to that, he served as our Senior Vice President of Cardiovascular Products since November 2005 and also served

as a consultant to the company from July 2005 through November 2005. From October 2004 until June 2005, Dr. Hislop was Vice President, Clinical Development for Peninsula Pharmaceuticals, Inc. where he oversaw three global development programs for Peninsula s anti-infective product portfolio. From September 2001 until September 2004, Dr. Hislop served as Vice President of Clinical Development at CV Therapeutics, Inc., a biopharmaceutical company. Dr. Hislop holds a B.Sc. in medical biochemistry from the University of Surrey, and a degree in medicine from the University of London.

Debra Odink, Ph.D. Dr. Odink was promoted to Senior Vice President of Pharmaceutical Research and Development in June 2010. Prior to that, she served as our Vice President of Pharmaceutical Research and Development since December 2005. From September 2002 until July 2005, Dr. Odink served as Vice President of

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Pharmaceutical Chemistry and Product Development at Peninsula Pharmaceuticals, Inc., a biopharmaceutical company, where she was responsible for manufacturing and product development strategies for assets licensed to Peninsula. Dr. Odink holds a B.S. in chemistry from California State University, Stanislaus and a Ph.D. in inorganic chemistry from the University of California at Davis.

Georgina Kilfoil. Ms. Kilfoil has served as our Senior Vice President, Product Development and Clinical Operations since March 2010. Prior to joining us, Ms. Kilfoil was the Vice President, Alliances and Project Management of Peninsula Pharmaceuticals, Inc. from 2004 to 2005. From August 2000 to December 2003, Ms. Kilfoil was a project management consultant with InClin, Inc., a consulting company. Ms. Kilfoil holds a B.S. in pharmacology from the University of Bristol, United Kingdom and an M.B.A. from the Australian Graduate School of Management, Sydney, Australia.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our officers and directors, and persons who own more than 10% of a registered class of our equity securities, to file reports of ownership and changes in ownership (Forms 3, 4 and 5) with the SEC. Officers, directors and greater than 10% stockholders are required to furnish us with copies of all such forms which they file.

To our knowledge, based solely on our review of such reports or written representations from certain reporting persons, we believe that all of the filing requirements applicable to our officers, directors, greater than 10% beneficial owners and other persons subject to Section 16 of the Exchange Act were complied with during the year ended December 31, 2010.

ITEM 11. EXECUTIVE COMPENSATION

Director Compensation

Each of our non-employee directors receives a $40,000 annual retainer fee instead of per-meeting fees. In consideration for their services, the Chairman of our Board of Directors receives an additional $40,000, the chairman of our Audit Committee receives an additional $15,000 and the chairman of our Compensation Committee receives an additional $10,000, each on an annual basis.

In addition, since the completion of our initial public offering, each new non-employee director receives a non-qualified stock option to purchase 25,000 shares of our common stock upon joining the Board, which vests over a four-year period from the date of grant. In addition, each non-employee director receives a non-qualified stock option to purchase 12,000 shares of our common stock each year, which vests over a one-year period from the date of grant. Any new Chairman of our Board of Directors would receive a non-qualified stock option to purchase 45,000 shares of our common stock upon election to the Board, which would vest over a four-year period from the date of grant. Our Chairman also receives a non-qualified stock option to purchase 15,000 shares of our common stock each year, which vests over a one-year period from the date of grant.

All members of our Board of Directors are eligible to receive full reimbursement for travel expenses arising from their attendance of our board meetings.

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Director Compensation Table 2010

The following table sets forth information with respect to the compensation earned by our non-employee directors during the fiscal year ended December 31, 2010.

Name	Fees Earned or Paid in Cash ($)	Option Awards ($)(1)	Total ($)
Christopher S. Henney, Ph.D. (Chairman)	$ 80,000	$ 37,089(2)	$ 117,089
Annette Bianchi	$ 40,000	$ 29,671(3)	$ 69,671
James I. Healy, M.D., Ph.D.	$ 40,000	$ 29,671	$ 69,671
A. Rachel Leheny, Ph.D(4)	$ 40,000	$ 29,671(5)	$ 69,671
Donald J. Santel	$ 41,250	$ 29,671(6)	$ 70,921
Daniel K. Spiegelman(7)	$ 50,417	$ 29,671(7)	$ 80,088
David E. Thompson	$ 50,000	$ 29,671(8)	$ 79,671
Peter A. Thompson(9)	$	$	$

(1) This column reflects the aggregate grant date fair value of equity awards granted in 2010 and calculated in accordance with FASB ASC 718, excluding the effect of estimated forfeitures. See Note 11 to our financial statements for a discussion of the assumptions made in determining the valuation of option awards.

(2) Dr. Henney held 15,000 shares underlying stock options as of December 31, 2010.

(3) Ms. Bianchi held 32,443 shares underlying stock options as of December 31, 2010.

(4) Dr. Leheny resigned from our Board of Directors on February 1, 2011.

(5) Dr. Leheny held 26,602 shares underlying stock options as of December 31, 2010.

(6) Mr. Santel held 32,443 shares underlying stock options as of December 31, 2010.

(7) Mr. Spiegelman joined our Board of Directors on February 2, 2010. He held 37,000 shares underlying stock options as of December 31, 2010.

(8) Mr. Thompson held 29,523 shares underlying stock options as of December 31, 2010.

(9) Dr. Thompson joined our Board of Directors on February 1, 2011.

Compensation Discussion and Analysis

This section discusses our executive compensation policies and arrangements as they relate to our named executive officers who are listed in the compensation tables set forth below. The following discussion should be read together with the compensation tables and related disclosures set forth below.

Background and Objectives

We are a biopharmaceutical company focused on developing and commercializing products to treat serious diseases associated with inflammation, including cardiovascular and autoimmune diseases. The success of development companies is significantly influenced by the quality and motivation of their work forces. As a result, we face significant competition for executives and other talented employees from numerous pharmaceutical research and development companies in the San Francisco Bay Area. With this in mind, we strive to provide what we believe is a competitive total compensation package to our executive officers through a combination of base salary, short-term cash incentives and long-term equity compensation, in addition to broad-based employee benefits programs, in order to closely align the interests of our executive officers with those of our stockholders, to attract talented individuals to manage and operate all aspects of our business, to reward these individuals fairly and to retain those individuals who meet our high expectations and support the achievement of our business objectives.

Role of Compensation Committee and Executive Officers

Our executive compensation program is administered by our board of directors upon recommendation of our compensation committee. Our compensation committee is responsible for overseeing our executive compensation policies, plans and programs, reviewing our achievements as a company and the achievements of our individual officers, and recommending to our board of directors the type and level of compensation for our named executive officers and our directors. The primary goal of our compensation committee is to closely align the interests of our

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named executive officers with those of our stockholders. To achieve this goal, our compensation committee relies on compensation that is designed to attract and retain executives whose abilities are critical to our long term success, that motivates individuals to perform at their highest level and that rewards achievement.

The annual responsibilities of our compensation committee include the following:

- reviewing and recommending corporate goals and objectives relevant to the compensation of our Chief Executive Officer and named executive officers;
- evaluating the performance of our Chief Executive Officer and named executive officers in light of such corporate goals and objectives and determining the compensation of our Chief Executive Officer; and
- reviewing and approving the level of equity awards, annual salary and bonuses for our named executive officers and other employees.

In reviewing and approving these matters, our compensation committee considers such matters as it deems appropriate, including our financial and operating performance, the alignment of interests of our executive officers and our stockholders and our ability to attract and retain qualified individuals. For executive compensation decisions, including decisions relating to the grant of equity awards to our named executive officers, our compensation committee typically considers the recommendations of Mr. Truex, our Chief Executive Officer. Mr. Truex also generally participates in our compensation committee s deliberations about executive compensation matters. However, Mr. Truex does not participate in the deliberation or determination of his own compensation.

Our compensation committee has not established any formal policies or guidelines for allocating compensation between current and long-term equity compensation, or between cash and non-cash compensation. In determining the amount and mix of compensation elements and whether each element provides the correct incentives and rewards for performance consistent with our short-term and long-term goals and objectives, our compensation committee relies on its judgment about each individual s performance in a rapidly changing business environment rather than adopting a formulaic approach to compensatory decisions that are too narrowly responsive to short-term changes in business performance. In making determinations about performance, our compensation committee does not solely rely on formal goals or metrics, but rather takes into account input from appropriate members of management with respect to an individual s performance, as well as its own observations.

Role of Compensation Consultant

Our compensation committee has the authority under its charter to engage the services of any consulting firm or other outside advisor to assist it. Prior to our IPO, in September 2009, our compensation committee engaged J. Thelander Consulting, an independent consulting firm selected by our compensation committee, to review and provide comparative data on the base salary, bonus and equity compensation of (i) chief executive officers of private biotechnology companies with funding levels between $50 to $70 million and (ii) chief executive officers and other executive officers of publicly traded biotechnology companies with a market capitalization between $220 to $375 million. J. Thelander Consulting also provided a review of the board compensation of such publicly traded biotechnology companies. Our compensation committee reviewed the report by J. Thelander Consulting, and in April 2010, made certain changes to our executive compensation as detailed below based, in part, on such report.

In December 2010, our compensation committee engaged Remedy Compensation Consulting (which has since merged with Compensia), an independent consulting firm specializing in the life sciences and technology industries, to review and provide comparative data on the base salary, bonus, equity compensation and total direct compensation of our executive officers as compared against 22 similar peer group public biotechnology companies as well as

Northern Californian companies with 50-149 employees participating in the Radford Life Sciences survey. Our compensation committee reviewed the report by Remedy Compensation Consulting and made certain changes to our executive compensation as detailed below, based in part, on such report.

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The companies in the peer group were as follows:

Affymax, Inc.	Neurogesx Inc.
Alexza Pharmaceuticals, Inc.	Omeros Corp.
Amarin Corp.	Optimer Pharmaceuticals Inc.
Avanir Pharmaceuticals	Orexigen Therapeutics, Inc.
AVI BioPharma Inc.	Pain Therapeutics Inc.
Cell Therapeutics, Inc.	Pharmacyclics Inc.
Cytokinetics, Inc.	Sunesis Pharmaceuticals Inc.
Depomed Inc.	Supergen Inc.
DURECT Corporation	Transcept Pharmaceuticals Inc.
Ligand Pharmaceuticals Inc.	Vical, Inc.
Map Pharmaceuticals Inc.	Xenoport, Inc.

J. Thelander Consulting and Remedy Compensation Consulting were retained by and reported directly to our compensation committee and do not provide any other services to the Company.

Compensation Elements

Base Salary. The base salaries of our named executive officers are primarily established based on the scope of their responsibilities and performance, taking into account comparable company data from our compensation consultants and based upon our compensation committee s understanding of compensation paid to similarly situated executives, and adjusted as necessary to recruit or retain specific individuals. We typically review the base salaries of our named executive officers annually. We may increase the base salary of an executive officer at other times if a change in the scope of the executive s responsibilities, such as promotion, justifies such consideration. We believe that a competitive base salary relative to the companies with which we compete for executives is a necessary element of any compensation program that is designed to attract and retain talented and experienced executives. We also believe that attractive base salaries can motivate and reward executives for their overall performance. Base salaries are established in part based on experience, skills and expected contributions of our executives and our executives performance during the prior year. In making determinations about the performance of our named executive officers, our compensation committee takes into account the achievement of corporate goals, which are set annually by our compensation committee and generally include milestones related to our preclinical and clinical studies and fundraising, as well as informal individual goals, which are position-specific and are communicated to the named executive officer over the course of the year.

After our IPO and taking into consideration the comparative compensation data from J. Thelander Consulting as mentioned above, in April 2010, as part of its annual review of compensation, the board of directors, upon the recommendation of the compensation committee, approved annual base salary adjustments for Company employees, including certain of the Company s named executive officers, which became effective on May 1, 2010. The adjusted base salaries for such named executive officers (and their titles at the time) are as follows:

Named Executive Officer	Annual Base Salary Prior to May 1, 2010	Annual Base Salary Effective May 1, 2010
Paul F. Truex,	$ 300,000	$ 425,000

President and Chief Executive Officer				
Christopher P. Lowe,	$	250,000	$	300,000
Chief Business Officer and Chief Financial Officer				
Colin Hislop, M.D.,	$	270,000	$	320,000
Senior Vice President and Chief Medical Officer				
Debra Odink, Ph.D.,	$	200,000	$	225,000
Senior Vice President, Pharmaceutical Research and Development				

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In connection with Dr. Odink s promotion to Senior Vice President, Pharmaceutical Research and Development in June 2010, her annual base salary was increased from $225,000 to $250,000.

As part of its annual review of compensation and taking into consideration the comparative compensation data from Remedy Compensation Consulting as mentioned above, effective February 1, 2011, our board of directors, upon the recommendation of the compensation committee, approved annual base salary adjustments for certain of our employees, including certain of our named executive officers. Such adjustments were targeted towards the 50th percentile of base compensation in our peer group, based on the Remedy Compensation Consulting data, taking into consideration adjustments for promotions (including Mr. Lowe to Chief Business Officer). The adjusted salaries for such named executive officers are as follows:

Named Executive Officer	Currant Annual Base Salary	Annual Base Salary Effective February 1, 2011
Paul F. Truex, President and Chief Executive Officer	$ 425,000	$ 500,000
Christopher P. Lowe, Chief Business Officer and Chief Financial Officer	$ 300,000	$ 340,000
Colin Hislop, M.D., Senior Vice President and Chief Medical Officer	$ 320,000	$ 340,000
Debra Odink, Ph.D., Senior Vice President, Pharmaceutical Research and Development	$ 250,000	$ 270,000

Cash Bonuses. Prior to our IPO, we did not have a formal cash incentive program, although we have paid cash bonuses based on the achievement of approved operational milestones in the past. In March 2010, the board of directors adopted the Company s Executive Incentive Bonus Plan, or the Bonus Plan, which applies to certain key executives, or the Executives, that are recommended by the compensation committee and selected by the board. The Bonus Plan provides for bonus payments based upon the attainment of performance targets established by the board and related to financial and operational metrics with respect to the Company or any of its subsidiaries, or the Performance Goals, which would include the achievement of clinical study or operational milestones, results of clinical studies and achievement of specified financial metrics or objectives. Any bonuses paid under the Bonus Plan shall be based upon objectively determinable bonus formulas that tie such bonuses to one or more performance targets relating to the Performance Goals. The bonus formulas shall be adopted in each performance period by the Board and communicated to each Executive. No bonuses shall be paid under the Bonus Plan unless and until the Board makes a determination with respect to the attainment of the performance objectives. Notwithstanding the foregoing, the Company may adjust bonuses payable under the Bonus Plan based on achievement of individual performance goals or pay bonuses (including, without limitation, discretionary bonuses) to Executives under the Bonus Plan based upon such other terms and conditions as the Board may in its discretion determine.

Each Executive is given a targeted bonus opportunity set for each performance period. The maximum bonus payable to an Executive under the Bonus Plan is 125% of the Executive s bonus opportunity. The Performance Goals will be measured at the end of each fiscal year after the Company s financial reports have been published or such other appropriate time as the board shall determine. If the Performance Goals are met, payments will be made within 30 days thereafter, and if met for the previous fiscal year, not later than March 31. An Executive must be employed by the Company as of the payment date in order to receive a bonus payment, provided that the board may make exceptions to this requirement, in its sole discretion, including, without limitation, in the case of an Executive s

termination of employment, retirement, death or disability.

In April 2010, our board of directors, upon recommendation of the compensation committee, approved performance bonus awards under the Bonus Plan based upon certain operational performance, including successful negotiation and completion of the SPA with the FDA, reactivation of the IND for A-623 including submission and acceptance of the Phase II protocol, completion of equity financings with proceeds to the Company in excess of $50 million and completion and submission of our FRANCIS study including a six-month follow-up evaluation. Such cash bonus awards were subject to a six-month lapsing right of repayment in the event of termination or employment. Our named executive officers received the following performance cash bonus awards: Mr. Truex ($250,000), Mr. Lowe ($100,000), Dr. Hislop ($65,000) and Dr. Odink ($25,000).

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In December 2010, our board of directors, upon recommendation of the compensation committee, approved annual cash bonuses under the Bonus Plan for performance in 2010. The annual target bonus opportunities for 2010 (expressed as a percentage of base salary and targeted towards the 50th percentile of our peer group) for our named executive officers were as follows: Mr. Truex (50%), Mr. Lowe (35%), Dr. Hislop (30%), Dr. Odink (30%) and Ms. Kilfoil (30%). These bonus payments were based upon the achievement of the following corporate goals, which were equally weighted:

- continued development of our product candidates, including initiating enrollment of our VISTA-16 clinical study for varespladib and obtaining at least a certain level of enrollment by the end of the year,
- initiating Phase 2 enrollment for A-623 and completing enrollment by the end of the year,
- considering strategic partnership opportunities for our product candidates, and
- opportunistically supporting our corporate development objectives with appropriate financing and budgeting efforts.

In determining cash bonuses under the Bonus Plan, our board determined that 70% of the 2010 corporate goals had been achieved. Each individual s target bonus was then adjusted for personal performance. The following cash bonus amounts for 2010 performance were approved for our named executive officers: Mr. Truex ($148,000), Mr. Lowe ($84,000), Dr. Hislop ($67,000), Dr. Odink ($55,000) and Ms. Kilfoil ($37,000).

Equity Incentive Compensation. We generally grant stock options to our employees, including our named executive officers, in connection with their initial employment with us. We also typically grant stock options on an annual basis as part of annual performance reviews of our employees. Our compensation committee had previously established grant guidelines for our employees, other than our Chief Executive Officer (whose grants were made at the discretion of the board of directors), based on an employee s position, which guidelines specify a range of equity grant amounts expressed as a percentage of our common stock outstanding on a fully-diluted basis, which range from 0.02% to 2.75%, depending on position.

We grant equity incentive compensation to our executive officers because we believe doing so will motivate our executives by aligning their interests more closely with the interests of our stockholders. In the past, we granted restricted stock to certain initial employees, including Mr. Truex, as we believed that it was appropriate for our initial key employees to have an immediate equity stake, and because we believed owning restricted stock would more closely align the interests of the recipient with those of our stockholders. Now that we are a more mature company, we believe it is generally more appropriate to grant stock options or restricted stock units to employees, as is the general practice at other companies with which we compete for talent, although we may continue to grant restricted stock or grant other types of equity awards when we deem it appropriate and in our stockholders best interests.

Prior to our initial public offering, equity incentive grants to our named executive officers and other employees were made at the discretion of our board of directors with the recommendation of our compensation committee out of our 2005 Equity Incentive Plan (the 2005 Plan). In determining equity incentive grants, the compensation committee considered the grant guidelines it had established for each position, along with the equity incentives already provided to an employee. Our compensation committee also considered individual performance, based on an informal evaluation of the individual s contribution to our corporate goals (which generally include milestones related to our preclinical and clinical studies and fundraising) and input received from management. Following our initial public offering, all stock options continue to be granted with an exercise price equal to the fair market value of our common stock on the date of grant, which is defined as the closing market price of a share of our common stock on the date of grant. We do not currently have any program, plan or practice of setting the exercise price based on a date or price

other than the fair value of our common stock on the grant date.

In 2010, our board of directors granted 333,000 restricted stock units to our employees and options to purchase a total of 112,000 shares of common stock to our directors, including 213,500 restricted stock units to our named executive officers. In exercising its discretion to determine the amount of each grant for recommendation to our board of directors, the compensation committee generally took into account each individual s contributions towards the achievement of our annual corporate goals. In March 2010, our board of directors, upon the compensation committee s recommendation, approved grants of restricted stock units to certain of our employees, including Mr. Truex, Mr. Lowe, Dr. Hislop and Dr. Odink, based upon the management team s contributions to our 2009 and

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first quarter 2010 operational performance on a relative scale dependent on such named executive officer s job function and responsibility. The amount of each grant was based upon industry data as well as such named executive officer s current level of equity awards. All of these grants were made to further motivate the recipients by aligning their interests more closely with our stockholders over the next several years by providing them with an equity interest in the company. In December 2010, based upon the Remedy Compensation Consulting data, our board of directors, upon recommendation of the compensation committee, approved annual grants of stock options, effective as of January 1, 2011, to certain of our employees, including our named executive officers, which were intended to target the 50th percentile of equity awards of our peer group, after giving effect to the annual grants. Our named executive officers received grants of stock options to purchase the following shares: Mr. Truex (260,000 shares), Mr. Lowe (160,000 shares), Dr. Hislop (170,000 shares), Dr. Odink (95,000 shares) and Ms. Kilfoil (100,000 shares).

Stock option awards provide our named executive officers and other employees with the right to purchase shares of our common stock at a fixed exercise price, subject to their continued employment. Stock options are earned on the basis of continued service and generally vest over four years, beginning with vesting as to 25% of the award on the one-year anniversary of the date of grant, and pro-rata vesting monthly thereafter. Stock options granted under the 2010 Plan may not be exercised prior to the award vesting in full. Stock Options previously granted under the 2005 Plan may be exercised prior to the award vesting in full, subject to our right of repurchase. In addition, in the past, we have also granted options to purchase smaller amounts of stock, typically fewer than 10,000 shares, which are immediately vested to recognize employee contributions, including those of our named executive officers. Furthermore, we generally grant incentive stock options to employees up to the statutory limit, then non-statutory options thereafter and non-statutory options to non-employees. See the section entitled Potential Payments Upon Termination or Change in Control for a discussion of the change in control provisions related to stock options.

Restricted stock units provide our executive officers and other employees to receive shares of stock upon the vesting of the restricted stock units, subject to their continued employment. Restricted stock units generally vest in equal annual installments over four years. However, we also have granted restricted stock units that vest in full after one year as a short-term incentive after our successful initial public offering. See the section below entitled Potential Payments Upon Change in Control and Termination for a discussion of the change in control provisions related to restricted stock.

After our IPO, we adopted an equity award grant policy that formalized how we grant equity-based awards to officers and employees. Under our equity award grant policy, all grants must be approved by our board of directors or compensation committee. All stock options will be awarded with an exercise price equal to the fair value of our common stock and calculated based on our closing market price on the last trading day of the quarter in which the grant is approved.

Other Compensation. We currently maintain broad-based benefits that are provided to all employees, including health insurance, life and disability insurance, dental insurance and a 401(k) plan.

As discussed below in Severance and Change in Control Agreements and in Potential Payments Upon Change in Control and Termination, we have, for all named executive officers, agreements providing certain benefits upon termination of their employment in relation to a change in control, including the acceleration of vesting of restricted stock and options. Our goal in providing severance and change in control benefits is to offer sufficient cash continuity protection such that our executives will focus their full time and attention on the requirements of the business rather than the potential implications for their respective positions. We prefer to have certainty regarding the potential severance amounts payable to the named executive officers under certain circumstances, rather than negotiating severance at the time that a named executive officer s employment terminates. We have also determined that accelerated vesting provisions in connection with a termination following a change of control are appropriate because they will encourage our restricted stock and option holders, including our named executive officers, to stay focused in

such circumstances, rather than the potential implications for them.

All of our named executive officers are party to severance agreements that provide benefits upon termination of employment in connection with a change of control.

Tax and Accounting Treatment of Compensation. Section 162(m) of the Internal Revenue Code places a limit of $1.0 million per person on the amount of compensation that we may deduct in any one year with respect to each of

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our named executive officers other than the chief financial officer. There is an exemption from the $1.0 million limitation for performance-based compensation that meets certain requirements. Grants of stock options and stock appreciation rights under our 2010 Plan are intended to qualify for the exemption. Restricted stock awards and restricted stock unit awards under our 2010 Plan, as well as performance cash awards, may qualify for the exemption if certain additional requirements are satisfied. To maintain flexibility in compensating officers in a manner designed to promote varying corporate goals, our compensation committee has not adopted a policy requiring all compensation to be deductible. Although tax deductions for some amounts that we pay to our named executive officers as compensation may be limited by section 162(m), that limitation does not result in the current payment of increased federal income taxes by us due to our significant net operating loss carry-forwards. Our compensation committee may approve compensation or changes to plans, programs or awards that may cause the compensation or awards to exceed the limitation under section 162(m) if it determines that such action is appropriate and in our best interests.

We account for equity compensation paid to our employees under the rules of FASB ASC 718, which requires us to estimate and record an expense for each award of equity compensation over the service period of the award. Accounting rules also require us to record cash compensation as an expense at the time the obligation is incurred.

Compensation of Executive Officers

Summary Compensation Table

The following table summarizes the compensation that we paid to our Chief Executive Officer, Chief Financial Officer and each of our three other most highly compensated executive officers during the years ended December 31, 2010, 2009 and 2008. We refer to these officers in this report as our named executive officers.

Name and Principal Position as of December 31, 2010	Year	Salary ($)	Bonus ($)	Stock Awards ($)(1)	Non-Equity Incentive Plan Compensation ($)(2)	Total ($)
Paul F. Truex	2010	$ 383,333		$ 460,960	$ 398,000	$ 1,242,293
President, Chief Executive Officer	2009	$ 281,837		$ 88,125		$ 369,962
and Director	2008	$ 300,000				$ 300,000
Christopher P. Lowe	2010	$ 283,333		$ 214,400	$ 184,000	$ 681,733
Chief Business Officer and Chief	2009	$ 241,174		$ 23,500		$ 264,674
Financial Officer	2008	$ 250,000		$ 117,411		$ 367,411
Colin Hislop, M.D.	2010	$ 303,333		$ 214,400	$ 132,000	$ 649,733
Senior Vice President,	2009	$ 259,621	$ 1,247	$ 28,795		$ 289,663
Cardiovascular Products	2008	$ 270,000				$ 270,000
Debra Odink, Ph.D.	2010	$ 232,179		$ 134,000	$ 80,000	$ 446,179
Senior Vice President, Pharmaceutical	2009	$ 158,580	$ 3,996	$ 29,375		$ 191,951
Research and Development	2008	$ 200,000				$ 200,000
Georgina Kilfoil(3)	2010	$ 197,917		$ 120,600	$ 37,000	$ 355,517
Senior Vice President, Development	2009					
And Clinical Operations	2008					

(1)

This column reflects the aggregate grant date fair value of equity awards granted in 2010, 2009 and 2008. During 2010, we granted restricted stock units to our executive officers and the grant date fair value is calculated based on the closing sales price of our common stock on the grant date and in accordance with FASB ASC 718. During 2009 and 2008, we granted stock options to our executive officers and the grant date fair value is calculated in accordance with FASB ASC 718, excluding the effect of estimated forfeitures. See Note 11 to our financial statements for a discussion of the assumptions made in determining the valuation of option awards.

(2) Includes performance cash bonus awards paid following our initial public offering and annual cash performance bonus awards paid in 2011 for 2010 performance.

(3) Ms. Kilfoil joined us on March 16, 2010.

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Grants of Plan-Based Awards

The following table sets forth certain information with respect to awards under our equity and non-equity incentive plans made by us to our named executive officers and stock options awarded to our named executive officers for the year ended December 31, 2010.

Name	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards (4) Target ($)	Maximum ($)(5)	All Other Stock Awards: Number of Shares of Stock or Units (#)	Grant Date Fair Value of Stock Awards ($)(3)
Paul F. Truex	6/30/2010(1)			50,000	$ 268,000
	6/30/2010(2)			36,000	$ 192,960
		$ 212,500	$ 531,250		
Christopher P. Lowe	6/30/2010(1)			22,000	$ 117,920
	6/30/2010(2)			18,000	$ 96,480
		$ 105,000	$ 375,000		
Colin Hislop, M.D.	6/30/2010(1)			30,000	$ 160,800
	6/30/2010(2)			10,000	$ 53,600
		$ 96,000	$ 400,000		
Debra Odink, Ph.D.	6/30/2010(1)			20,000	$ 107,200
	6/30/2010(2)			5,000	$ 26,800
		$ 75,000	$ 312,500		
Georgina Kilfoil	6/30/2010(1)			22,500	$ 120,600
		$ 59,400(6)	$ 247,396(6)		

(1) These restricted stock units vest in equal annual installments over four years. The vesting commencement date of these grants is June 30, 2010.

(2) These restricted stock units vest in one annual installment. The vesting commencement date of these grants is June 30, 2010.

(3) The grant date fair value of each equity award is calculated based on the closing sales price of our common stock on the date of grant in accordance with FASB ASC 718, excluding the effect of estimated forfeitures.

(4) The plan does not have a threshold.

(5) The plan allows for a bonus payment of up to 125% of the executive officer s salary.

(6) Ms. Kilfoil joined us on March 16, 2010. This number is prorated based on her service for the year.

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Outstanding Equity Awards at Fiscal Year-End

The following table sets forth certain information with respect to outstanding equity awards as of December 31, 2010 with respect to our named executive officers.

	Option Awards				Stock Awards	
Name	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)*	Option Exercise Price ($)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested ($)(1)
Paul F. Truex	362,826		$ 0.26	1/23/2017		
	52,548	13,828(2)	$ 1.51	2/18/2019		
	16,815	4,425(3)	$ 1.51	2/18/2019		
					50,000(7)	$ 244,000
					36,000(8)	$ 175,680
Christopher P. Lowe	2,920(4)		$ 0.14	3/6/2016		
	57,725	17,161(5)	$ 1.34	2/21/2018		
	36,828	10,949(6)	$ 1.34	2/21/2018		
	18,497	4,867(2)	$ 1.51	2/18/2019		
					22,000(7)	$ 107,360
					18,000(8)	$ 87,840
Colin Hislop, M.D.	130,447		$ 0.26	1/23/2017		
	18,497	4,867(2)	$ 1.51	2/18/2019		
	5,257		$ 1.51	4/15/2019		
					30,000(7)	$ 146,400
					10,000(8)	$ 48,800
Debra Odink, Ph.D.	23,121	6,084(2)	$ 1.51	2/18/2019		
					20,000(7)	$ 97,600
					5,000(8)	$ 24,400
Georgina Kilfoil					22,500(7)	$ 109,800

* Unless otherwise noted in the footnotes, these options vest over four years as follows: 25% of the shares vest one year following the vesting commencement date, with the remaining 75% vesting in equal monthly installments over the next three years. All unvested options, pursuant to the 2005 Plan, contain an early exercise feature subject to the Company s right of repurchase.

(1) Represents the closing market price of our common stock as of December 31, 2010 ($4.88) multiplied by the number of restricted stock units.

(2) This incentive stock option vests in equal monthly installments over four years commencing on August 12, 2008.

(3) This non-statutory stock option vests in equal monthly installments over four years commencing on August 12, 2008.

(4) These options were granted to Mr. Lowe on March 6, 2006 in his capacity as a consultant to the Company and vested immediately on the grant date.

(5) The vesting commencement date of this incentive stock option is November 26, 2007.

(6) The vesting commencement date of this non-statutory stock option is November 26, 2007.

(7) These restricted stock units vest in equal annual installments over four years. The vesting commencement date of these grants is June 30, 2010.

(8) These restricted stock units vest in one annual installment. The vesting commencement date of these grants is June 30, 2010.

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Option Exercises and Stock Vested

Options Exercised 2010

The following table sets forth certain information with respect to the options exercised during the year ended December 31, 2010 with respect to our named executive officers. There was no vesting of stock awards during the year ended December 31, 2010 with respect to our named executive officers.

	Option Awards	
Name	**Number of Shares Acquired on Exercise (#)**	**Value Realized on Exercise ($)(1)**
Paul F. Truex	23,364	$ 158,642
Christopher P. Lowe		
Colin Hislop, M.D.	14,683	$ 43,021
Debra Odink, Ph.D.		
Georgina Kilfoil		

(1) This column reflects the value realized for vested options exercised in 2010, which represents the difference between the market price of our common stock on the date of exercise and the exercise price of the stock option.

Stock and Benefit Plans

2005 Equity Incentive Plan

Our 2005 Plan was adopted by our board of directors and approved by our stockholders in April 2005. We have reserved 2,175,817 shares of our common stock for the issuance of awards under the 2005 Plan.

Our 2005 Plan is administered by our board of directors, which has the authority to delegate full power and authority to a committee of the board. Our board of directors or any committee delegated by our board of directors has the power to select the individuals to whom awards will be granted, to make any combination of awards to participants, to accelerate the exercisability or vesting of any award, to provide substitute awards and to determine the specific terms and conditions of each award, subject to the provisions of the 2005 Plan.

The 2005 Plan permits us to make grants of incentive stock options, non-qualified stock options, restricted stock awards and stock appreciation rights to employees, directors and consultants. Stock options granted under the 2005 Plan have a maximum term of 10 years from the date of grant and incentive stock options have an exercise price of no less than the fair market value of our common stock on the date of grant. Upon a sale event in which all awards are not assumed or substituted by the successor entity, the vesting of awards under the 2005 Plan shall be accelerated in full prior to the sale event and all stock options issued thereunder will terminate.

All stock option awards that are granted to our named executive officers are covered by a stock option agreement. Except as noted above, under the stock option agreements, 25% of the shares vest on the first anniversary of the grant date and the remaining shares vest monthly over the following three years. Our board of directors may accelerate the vesting schedule in its discretion. We did not engage in any option repricing or other modification to any of our outstanding equity awards during the fiscal year ended December 31, 2010.

Our board of directors has determined not to grant any further awards under the 2005 Plan after the completion of our initial public offering. We have adopted the 2010 Plan effective upon the consummation of our initial public offering in March 2010.

Amended and Restated 2010 Stock Option and Incentive Plan

In February 2010, our board of directors, upon the recommendation of our compensation committee, approved the 2010 Plan, which was also approved by our stockholders. Our board of directors subsequently approved the amendment and restatement of our 2010 Plan, which was approved by our stockholders at our annual stockholders meeting held in July 2010. The 2010 Plan became effective upon the consummation of our initial public offering and replaced the 2005 Plan, as our board of directors determined not to make additional awards under that plan once

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the 2010 Plan became effective. The 2010 Plan provides flexibility to our compensation committee to use various equity-based incentive awards as compensation tools to motivate our workforce.

We initially reserved 233,644 shares of our common stock for the issuance of awards under the 2010 Plan plus an additional 35,670 shares of common stock available for grant under our 2005 Plan, which shares were added to the shares reserved under our 2010 Plan, and an additional 200,000 shares that were added by the amendment and restatement approved at our 2010 annual stockholders meeting. The 2010 Plan provides that the number of shares reserved and available for issuance under the plan will automatically increase each January 1, beginning in 2011, by 4% of the outstanding number of shares of common stock on the immediately preceding December 31. This number is subject to adjustment in the event of a stock split, stock dividend or other change in our capitalization.

The shares we issue under the 2010 Plan are authorized but unissued shares or shares that we reacquire. The shares of common stock underlying any awards that are forfeited, canceled, held back upon exercise or settlement of an award to satisfy the exercise price or tax withholding, reacquired by us prior to vesting, satisfied without any issuance of stock, expire or are otherwise terminated (other than by exercise) under the 2010 Plan are added back to the shares of common stock available for issuance under the 2010 Plan.

The 2010 Plan is administered by our board of directors under recommendation by our compensation committee. Our board of directors has full power to select, from among the individuals eligible for awards, the individuals to whom awards will be granted, to make any combination of awards to participants and to determine the specific terms and conditions of each award, subject to the provisions of the 2010 Plan. The board of directors may delegate to our compensation committee or our Chief Executive Officer the authority to grant options to certain individuals. Persons eligible to participate in the 2010 Plan will be those of our full or part-time officers, employees, non-employee directors and other key persons (including consultants and prospective employees) as selected from time to time by our board of directors in its discretion.

The 2010 Plan permits the granting of (i) options to purchase common stock intended to qualify as incentive stock options under Section 422 of the Internal Revenue Code of 1986, as amended, and the regulations thereunder, or the Code, and (ii) options that do not so qualify. The option exercise price of each option will be determined by our compensation committee but may not be less than 100% of the fair market value of the common stock on the date of grant. The term of each option will be fixed by our compensation committee and may not exceed 10 years from the date of grant. Our compensation committee will determine at what time or times each option may be exercised.

Our board of directors may award stock appreciation rights subject to such conditions and restrictions as our compensation board of directors may determine. Stock appreciation rights entitle the recipient to shares of common stock equal to the value of the appreciation in the stock price over the exercise price. The exercise price shall not be less than the fair market value of the common stock on the date of grant.

Our board of directors may award restricted shares of common stock to participants subject to such conditions and restrictions as our compensation committee may determine. These conditions and restrictions may include the achievement of certain performance goals and/or continued employment with us through a specified restricted period. Our compensation committee may award restricted stock units to any participants. Restricted stock units are ultimately payable in the form of shares of common stock and may be subject to such conditions and restrictions as our compensation committee may determine. These conditions and restrictions may include the achievement of certain performance goals and/or continued employment through a specified vesting period. Our board of directors may also grant shares of common stock which are free from any restrictions under the 2010 Plan. Unrestricted stock may be granted to any participant in recognition of past services or other valid consideration and may be issued in lieu of cash compensation due to such participant.

Our board of directors may grant performance share awards to any participant which entitles the recipient to receive shares of common stock upon the achievement of certain performance goals and such other conditions as our compensation committee shall determine.

Our board of directors may grant dividend equivalent rights to participants which entitle the recipient to receive credits for dividends that would be paid if the recipient had held specified shares of common stock.

Our board of directors may grant cash bonuses under the 2010 Plan to participants. The cash bonuses may be subject to the achievement of certain performance goals.

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The 2010 Plan also provides that upon the effectiveness of a sale event as defined in the 2010 Plan, except as otherwise provided by our compensation committee in the award agreement, all awards will automatically terminate, unless the parties to the sale event agree that such awards will be assumed or continued by the successor entity. Awards with conditions and restrictions relating to the attainment of performance goals may become vested and non-forfeitable in connection with a sale event in the compensation committee s discretion. In addition, in the case of a sale event in which our stockholders will receive cash consideration, we may make or provide for a cash payment to participants holding options and stock appreciation rights equal to the difference between the per share cash consideration and the exercise price of the options or stock appreciation rights.

No awards may be granted under the 2010 Plan after the date that is 10 years from the date of stockholder approval.

2010 Employee Stock Purchase Plan

Our board of directors adopted the Anthera Pharmaceuticals, Inc. 2010 Employee Stock Purchase Plan (the ESPP), and our stockholders approved the ESPP at our 2010 annual stockholders meeting. Our Board of Directors subsequently amended the ESPP on December 15, 2010. We have reserved 100,000 shares of common stock for issuance thereunder plus on January 1, 2011 and each January 1 thereafter, the number of shares of stock reserved and available for issuance under the Plan shall be cumulatively increased by the lesser of (i) one percent (1%) of the number of shares of common stock issued and outstanding on the immediately preceding December 31 or (ii) 250,000 shares of common stock. Under the ESPP, eligible employees of the Company and certain designated subsidiaries of the Company may authorize the Company to deduct amounts from their compensation, which amounts are used to enable the employees to purchase shares of the Company s common stock. The purpose of the ESPP is to attract and retain key personnel, and encourage stock ownership by the Company s employees.

The ESPP is a broad-based employee stock purchase plan under Section 423 of the Code.

The shares that are reserved under the ESPP have an aggregate value of approximately $0.5 million based on the closing price of the common stock as reported on The NASDAQ Global Market on December 31, 2010.

The ESPP is administered by the person or persons appointed by the Company s board of directors. The ESPP provides that all employees of the Company and any designated subsidiaries of the Company who work at least 20 hours per week are eligible to participate in the ESPP, except for persons who are deemed under Section 423(b)(3) of the Code to own five percent (5%) or more of the voting stock of the Company. Participation by any eligible employee is voluntary. The number of employees potentially eligible to participate in the ESPP is approximately 20 persons.

The ESPP provides for two offering periods within each year, and the first commenced on September 1, 2010 and ended on December 31, 2010. Thereafter, the first offering period in a year will commence on the first business day occurring on or after each January 1 and ending on the last business day occurring on or before the following June 30, and the second will commence on the first business day occurring on or after each July 1 and ending on the last business day occurring on or before the following December 31. Eligible employees may elect to become participants in the ESPP by enrolling prior to each semi-annual date to purchase shares under the ESPP. Shares are purchased through the accumulation of payroll deductions of not less than one percent (1%) nor more than ten percent (10%) of each participant s compensation. The maximum number of shares of common stock that can be purchased under the ESPP during any one calendar year is that number having a fair market value of $25,000 on the first day of the purchase period pursuant to which the shares are purchased. The number of shares to be purchased with respect to any purchase period will be the lesser of (a) the number of shares determined by dividing the participant s balance in the plan account on the last day of the purchase period by the purchase price per share for the stock, (b) 10,000 shares, and (c) such other lesser maximum number of shares as shall have been established by the administrator in advance of the offering. The purchase price per share will be 85% of the fair market value of the common stock as of the first date

or the ending date of the applicable semi-annual purchase period, whichever is less.

A participant s right to purchase shares during a purchase period under the ESPP is not transferable by the participant except by will or by the laws of descent and distribution. Employees may cease their participation in the offering at any time during the offering period, and participation automatically ceases on termination of employment with the Company.

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The number of shares that are reserved for issuance under the ESPP is subject to adjustment for stock splits and similar events. The proceeds received by the Company from exercise under the ESPP will be used for the general purposes of the Company. Shares issued under the ESPP may be authorized but unissued shares or shares reacquired by the Company and held in its treasury.

The ESPP shall remain in full force and effect until suspended or discontinued by our board of directors. Our board of directors may, at any time, terminate the ESPP; provided, that the ESPP shall automatically terminate in accordance with its terms as of the tenth anniversary of its adoption by the board of directors. Our board of directors may at any time, and from time to time, amend the ESPP in any respect, except that without the approval within 12 months of such board action by the stockholders, no amendment may be made increasing the number of shares approved for the ESPP or making any other change that would require stockholder approval in order for the ESPP, as amended, to qualify as an employee stock purchase plan under Section 423(b) of the Code.

401(k) Savings Plan

We have established a 401(k) plan to allow our employees to save on a tax-favorable basis for their retirement. We do not match any contributions made by any employees, including our named executive officers, pursuant to the plan.

Pension Benefits

None of our named executive officers participate in or have account balances in pension benefit plans sponsored by us.

Nonqualified Defined Contribution and Other Nonqualified Defined Compensation Plans

None of our named executive officers participate in or have account balances in non-qualified defined contribution plans or other deferred compensation plans maintained by us.

Severance and Change in Control Arrangements

We consider it essential to the best interests of our stockholders to foster the continuous employment of our key management personnel. In this regard, we recognize that the possibility of a change in control may exist and that the uncertainty and questions that it may raise among management could result in the departure or distraction of management personnel to the detriment of the Company and our stockholders. In order to reinforce and encourage the continued attention and dedication of certain key members of management, we have entered into several change in control agreements and severance agreements with certain of our executive officers.

In these agreements, the definition of change in control generally means the occurrence, in a single transaction or in a series of related transactions of any one or more of the following events, subject to specified events: (a) any Exchange Act Person (defined in the change in control agreements generally as any natural person, entity, or group not including the Company or any subsidiaries) becomes the owner of securities representing more than 50% of the combined voting power of our then outstanding securities; (b) a merger, consolidation or similar transaction involving the Company is consummated and immediately after the consummation of such merger, consolidation, or similar transaction, our stockholders immediately prior thereto do not own either outstanding voting securities representing more than 50% of the combined outstanding voting power of the surviving entity or more than 50% of the combined outstanding voting power of the parent of the surviving entity in such merger, consolidation, or similar transaction; or (c) a sale, lease, license or other disposition of all or substantially all of our consolidated assets is consummated.

In these agreements, cause means: (a) gross negligence or willful misconduct in the performance of duties that is not cured within 30 days of written notice, where such gross negligence or willful misconduct has resulted or is likely to result in substantial and material damage to the Company; (b) repeated unexplained or unjustified absence; (c) a material and willful violation of any federal or state law; (d) commission of any act of fraud with respect to the Company; or (e) commission of an act of moral turpitude or conviction of or entry of a plea of nolo contendere to a felony.

Constructive termination means an officer s resignation within 180 days of the occurrence of any of the following events without the officer s prior written consent, provided the officer provides notice within 90 days of the first occurrence of such event and such event remains uncured 30 days after delivery of the written notice: (a) a

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material diminution of such officer s duties, responsibilities or authority; (b) a material diminution of base compensation; or (c) a material change in the geographic location at which the officer provides services to us.

Paul F. Truex

On October 15, 2009, we entered into an amended and restated change in control agreement with Mr. Truex. Upon the occurrence of a change in control or within 12 months thereafter, if we terminate Mr. Truex s employment for any reason other than for cause or if there is a constructive termination, in either case, Mr. Truex is entitled to receive as severance compensation 100% of his then-current base salary for a period of up to 12 months and payment of continuation coverage premiums for health, dental, and vision benefits for Mr. Truex and his covered dependents, if any, for a period of 12 months pursuant to COBRA. In addition, Mr. Truex is entitled to receive (i) 12 months accelerated vesting of any unvested options to purchase our common stock and (ii) the immediate lapsing of any vesting restrictions on any restricted stock awards as of the date of termination.

Christopher P. Lowe

On October 12, 2009, we entered into an amended and restated change in control agreement with Mr. Lowe. Upon the occurrence of a change in control or within 12 months thereafter, if we terminate Mr. Lowe s employment for any reason other than for cause or if there is a constructive termination, in either case, Mr. Lowe is entitled to receive as severance compensation 100% of his then-current base salary for a period of up to 12 months and payment of continuation coverage premiums for health, dental, and vision benefits for Mr. Lowe and his covered dependents, if any, for a period of 12 months pursuant to COBRA. In addition, Mr. Lowe is entitled to receive (i) 12 months accelerated vesting of any unvested options to purchase our common stock and (ii) the immediate lapsing of any vesting restrictions on any restricted stock awards as of the date of termination.

Colin Hislop, M.D.

On October 15, 2009, we entered into an amended and restated change in control agreement with Dr. Hislop. Upon the occurrence of a change in control or within 12 months thereafter, if we terminate Dr. Hislop s employment for any reason other than for cause or if there is a constructive termination, in either case, Dr. Hislop is entitled to receive as severance compensation 100% of his then-current base salary for a period of up to six months and payment of continuation coverage premiums for health, dental, and vision benefits for Dr. Hislop and his covered dependents, if any, for a period of six months pursuant to COBRA. In addition, Dr. Hislop is entitled to receive (i) six months accelerated vesting of any unvested options to purchase our common stock and (ii) the immediate lapsing of any vesting restrictions on any restricted stock awards as of the date of termination.

Debra Odink, Ph.D.

On October 15, 2009, we entered into an amended and restated change in control agreement with Dr. Odink. Upon the occurrence of a change in control or within 12 months thereafter, if we terminate Dr. Odink s employment for any reason other than for cause or if there is a constructive termination, in either case, Dr. Odink is entitled to receive as severance compensation 100% of her then-current base salary for a period of up to six months and payment of continuation coverage premiums for health, dental, and vision benefits for Dr. Odink and her covered dependents, if any, for a period of six months pursuant to COBRA. In addition, Dr. Odink is entitled to receive (i) six months accelerated vesting of any unvested options to purchase our common stock and (ii) the immediate lapsing of any vesting restrictions on any restricted stock awards as of the date of termination.

Georgina Kilfoil

On July 7, 2010, we entered into a change in control agreement with Ms. Kilfoil. Upon the occurrence of a change in control or within 12 months thereafter, if we terminate Ms. Kilfoil s employment for any reason other than for cause or if there is a constructive termination, in either case, Ms. Kilfoil is entitled to receive as severance compensation 100% of her then-current base salary for a period of up to twelve months and payment of continuation coverage premiums for health, dental, and vision benefits for Ms. Kilfoil and her covered dependents, if any, for a period of twelve months pursuant to COBRA. In addition, Ms. Kilfoil is entitled to receive (i) twelve months accelerated vesting of any unvested options to purchase our common stock and (ii) the immediate lapsing of any vesting restrictions on any restricted stock awards as of the date of termination.

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All payments and benefits are conditioned on the executive s execution and non-revocation of a general release agreement at the time of termination. All payments due upon termination (as discussed in this entire section) may be delayed up to six months from the termination date if necessary to avoid adverse tax treatment under Section 409A of the Internal Revenue Code.

Potential Payments Upon Change in Control and Termination

The tables below reflect potential payments and benefits available for each of our named executive officers upon termination in connection with a change in control or termination, assuming the date of occurrence is December 31, 2010. See section entitled Severance and Change in Control Agreements above.

Named Executive Officer Benefits and Payments Upon Termination(1)

Name	Involuntary Termination within One Year of Change in Control(2)
Paul F. Truex	$ 431,704
Christopher P. Lowe	$ 305,847
Colin Hislop, M.D.	$ 163,261
Debra Odink, Ph.D.	$ 127,878
Georgina Kilfoil	$ 256,265

(1) Assumes triggering event effective as of December 31, 2010. Upon a voluntary termination or termination for cause, each named executive officer would receive any earned but unpaid base salary until December 31, 2010. These payments would be available to all employees upon termination.

(2) Includes continuation of base salary determined as of December 31, 2010 and health, dental and vision benefits for 12 months for Mr. Truex, Mr. Lowe and Ms. Kilfoil. All other named executive officers receive six months continuation of base salary and benefits.

Acceleration of Vesting of Options and Stock upon Termination(1)

Name	Number of Shares of Accelerated Stock and Value upon Involuntary Termination and in Connection with a Change in Control(2)
Paul F. Truex	$ 456,588(3)
Christopher P. Lowe	$ 304,550(4)
Colin Hislop, M.D.	$ 200,120(5)
Debra Odink, Ph.D.	$ 128,150(6)
Georgina Kilfoil	$ 109,800(7)

(1) Assumes triggering event effective as of December 31, 2010 and excludes vested stock held as of such date. The market value of the accelerated option shares is based on the difference between our closing price of $4.88 per share on December 31, 2010 and the exercise price of such accelerated options. The market value of the accelerated restricted stock units is based on the closing price of $4.88 per share on December 31, 2010.

(2) Includes acceleration of options for 12 months for Mr. Truex, Mr. Lowe and Ms. Kilfoil. All other named executive officers have six months acceleration of options.

(3) 10,952 of Mr. Truex s options and 86,000 shares of Mr. Truex s restricted stock units would accelerate upon involuntary termination and in connection with a change of control.

(4) 31,030 of Mr. Lowe s options and 40,000 shares of Mr. Lowe s restricted stock units would accelerate upon involuntary termination and in connection with a change of control.

(5) 1,460 of Dr. Hislop s options and 40,000 shares of Dr. Hislop s restricted stock units would accelerate upon involuntary termination and in connection with a change of control.

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(6) 1,825 of Dr. Odink s options and 25,000 shares of Dr. Odink s restricted stock units would accelerate upon involuntary termination and in connection with a change of control.

(7) 22,500 shares of Ms. Kilfoil s restricted stock units would accelerate upon involuntary termination and in connection with a change of control.

Compensation Committee Interlocks and Insider Participation

None of the members of the Compensation Committee is or has at any time during the past fiscal year been an officer or employee of the Company. None of the members of the Compensation Committee has formerly been an officer of the Company. None of our executive officers serve or in the past fiscal year has served as a member of the board of directors or compensation committee of any other entity that has one or more executive officers serving as a member of our Board of Directors or Compensation Committee.

The following Compensation Committee Report is not deemed filed with the Securities and Exchange Commission. Notwithstanding anything to the contrary set forth in any of the Company s filings made under the Securities Act of 1933 or the Exchange Act that might incorporate filings made by the Company under those statutes, the Compensation Committee Report shall not be incorporated by reference into any prior filings or into any future filings made by the Company under those statutes.

Compensation Committee Report

The Compensation Committee of the Board of Directors (the Compensation Committee) has furnished this report on executive compensation. None of the members of the Compensation Committee is currently an officer or employee of the Company and all are non-employee directors for purposes of Rule 16b-3 under the Exchange Act and outside directors for purposes of Section 162(m) of the Internal Revenue Code. The Compensation Committee is responsible for designing, recommending to the Board of Directors for approval and evaluating the compensation plans, policies and programs of the Company and reviewing and approving the compensation of the Chief Executive Officer and other officers and directors.

This report, filed in accordance with Item 407(e)(5) of Regulation S-K, should be read in conjunction with the other information relating to executive compensation which is contained elsewhere in this report and is not repeated here.

In this context, the Compensation Committee hereby reports as follows:

1. The Compensation Committee has reviewed and discussed the Compensation Discussion and Analysis section contained herein with management.

2. Based on the review and discussions referred to in paragraph (1) above, the Compensation Committee recommended to the Board of Directors, and the Board of Directors has approved, that the Compensation Discussion and Analysis be included in this report.

COMPENSATION COMMITTEE
David E. Thompson, Chairman
Donald J. Santel
Peter A. Thompson, M.D.

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

Securities Authorized for Issuance Under Equity Compensation Plans

The following table provides information regarding our equity compensation plans in effect as of December 31, 2010.

	Equity Compensation Plan Information		
Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (a) (1)	Weighted Average Exercise Price of Outstanding Options, Warrants and Rights (b) (2)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plan (Excluding Securities Referenced in Column (a)) (c)
Equity compensation plans approved by security holders(3)	1,578,491	$ 1.26	110,473(4)
Equity compensation plans not approved by security holders	N/A	N/A	N/A
Total	1,578,491	$ 1.26	110,473(4)

(1) Includes 302,500 shares issuable upon settlement of outstanding restricted stock units with a weighted average grant date fair value of $5.13 per share.

(2) Does not take into account shares issuable upon settlement of restricted stock units, which have no exercise price.

(3) Consists of our 2005 Plan, our Amended and Restated 2010 Plan and our ESPP.

(4) This number includes 75,084 shares that were available for future issuance under the ESPP, as of December 31, 2010. The 2010 Plan provides that the number of shares reserved and available for issuance under the plan will automatically increases each January 1, beginning in 2011, by 4% of the outstanding number of shares or common stock on the immediately preceding December 31. This number is subject to adjustment in the event of a stock split, stock dividend or other change in our capitalization. Under the ESPP, we have reserved 100,000 shares of common stock for issuance thereunder plus on January 1, 2011 and each January 1 thereafter, the number of shares of stock reserved and available for issuance under the plan is cumulatively increased by the lesser of (i) one percent (1%) of the number of shares of common stock issued and outstanding on the immediately preceding December 31 or (ii) 250,000 shares of common stock.

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Security Ownership of Certain Beneficial Owners and Management

The following table sets forth information with respect to the beneficial ownership of shares of our common stock by (i) each director, (ii) each named executive officer, (iii) all directors and executive officers as a group, and (iv) each person who we know beneficially owns more than 5% of our common stock as of January 31, 2011, unless otherwise indicated below.

Beneficial ownership is determined in accordance with the rules of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities and include shares of common stock issuable upon the exercise of stock options that are immediately exercisable or exercisable within 60 days after January 31, 2011, but excludes unvested stock options, which contain an early exercise feature. Except as otherwise indicated, all of the shares reflected in the table are shares of common stock and all persons listed below have sole voting and investment power with respect to the shares beneficially owned by them, subject to applicable community property laws. The information is not necessarily indicative of beneficial ownership for any other purpose.

In computing the number of shares of common stock beneficially owned by a person and the percentage ownership of that person, we deemed outstanding shares of common stock subject to options or warrants held by that person that are currently exercisable or exercisable within 60 days of January 31, 2011. We did not deem these shares outstanding, however, for the purpose of computing the percentage ownership of any other person.

Percentage ownership calculations for beneficial ownership for each person or entity are based on 32,906,412 shares outstanding as of January 31, 2011. Except as otherwise indicated in the table below, addresses of named beneficial owners are in care of Anthera Pharmaceuticals, Inc., 25801 Industrial Blvd., Suite B, Hayward, California 94545.

Name of Beneficial Owner	Number of Shares Beneficially Owned	Percent of Class
5% or Greater Stockholders:		
VantagePoint Venture Partners IV, L.P. and affiliated entities, or VantagePoint(1)	6,472,646	19.56%
Caduceus Private Investments IV, LP(2)	4,783,068	13.97%
Sofinnova Venture Partners VI, L.P. and affiliated entities, or Sofinnova(3)	4,177,621	12.65%
FRM LLC(4)	2,926,000	8.89%
Visium Balanced Master Fund, Ltd.(5)	2,599,197	7.78%
Columbia Wanger Asset Management, LLC(6)	1,823,600	5.54%
A.M. Pappas Life Science Ventures III, L.P. and affiliated entities(7)	1,813,140	5.47%
HBM BioCapital, L.P. and affiliated entities(8)	1,702,471	5.15%
All 5% or greater stockholders as a group	26,297,743	74.27%
Named Executive Officers and Directors:		
Paul F. Truex(9)	1,133,302	3.40%
Christopher P. Lowe(10)	161,648	*
Colin Hislop, M.D.(11)	179,676	*
Debra Odink, Ph.D.(12)	120,961	*
Georgina Kilfoil(13)	87,616	*
Christopher S. Henney, Ph.D.(14)	122,408	*
Annette Bianchi(15)	23,332	*

James I. Healy, M.D., Ph.D.(16)	4,211,175	12.75%
Donald J. Santel(17)	24,244	*
Daniel K. Spiegelman(18)	14,250	*
David E. Thompson(19)	37,690	*
Peter A. Thompson		
All named executive officers and directors as a group (12 persons)	6,116,302	17.64%

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* Represents beneficial ownership of less than 1% of the shares of common stock.

(1) Includes (i) 5,695,228 shares of common stock and 147,861 shares of common stock issuable upon exercise of warrants, all owned of record by VantagePoint Venture Partners IV (Q), L.P., (ii) 570,147 shares of common stock and 14,801 shares of common stock issuable upon exercise of warrants, all owned of record by VantagePoint Venture Partners IV, L.P., (iii) 20,739 shares of common stock and 538 shares of common stock issuable upon exercise of warrants, all owned of record by VantagePoint Venture Partners IV Principals Fund, L.P., and (iv) options to purchase an additional 23,332 shares of common stock that are exercisable within 60 days of January 31, 2011 that are owned of record by Annette Bianchi, over which VantagePoint has sole voting and investment power. Ms. Bianchi, a director of Anthera, is a Managing Director at VantagePoint. Alan E. Salzman, through his authority to cause the general partner of the limited partnerships that directly hold such shares to act, may be deemed to have voting and investment power with respect to such shares. Mr. Salzman disclaims beneficial ownership with respect to such shares except to the extent of his pecuniary interest therein. The address for VantagePoint Venture Partners is 1001 Bayhill Drive, Suite 300, San Bruno, CA 94066.

(2) Includes 3,449,734 shares of common stock and 1,333,334 shares of common stock issuable upon exercise of warrants, all owned of record by Caduceus Private Investments, LP. OrbiMed Advisors LLC, a registered investment adviser under the Investment Advisers Act of 1940, as amended, is the sole managing member of OrbiMed Capital GP IV LLC, which is the sole general partner of Caduceus Private Investments IV, LP. Samuel D. Isaly is the owner of a controlling interesting in OrbiMed Advisors LLC. As such, OrbiMed Advisors LLC, OrbiMed Capital GP IV LLC and Mr. Isaly may be deemed to have voting and investment power with respect to such shares. The address for OrbiMed Advisors LLC is 767 Third Avenue, 30th Floor, New York, New York 10017.

(3) Includes: (i) 3,360,574 shares of common stock and 86,996 shares of common stock issuable upon exercise of warrants all owned of record by Sofinnova Venture Partners VI, L.P.; (ii) 665,820 shares of common stock and 17,237 shares of common stock issuable upon exercise of warrants all owned of record by Sofinnova Venture Partners VI GmbH & Co. KG; and (iii) 45,809 shares of common stock, all owned of record by Sofinnova Venture Affiliates VI, L.P. Alain Azan, Eric Buatois, Michael Powell and Dr. James I. Healy are the managing members of the general partner of the limited partnership, that directly hold such shares, and as such, may be deemed to share voting and investment power with respect to such shares. Dr. Healy is a director of Anthera. Messrs. Azan, Buatois and Powell and Dr. Healy disclaim beneficial ownership, except to the extent of their proportionate pecuniary interest in Sofinnova. The address for Sofinnova Ventures is 850 Oak Grove Ave., Menlo Park, CA 94025.

(4) Based on Schedule 13G filed on February 14, 2011 filed on behalf of FMR LLC and Edward C. Johnson 3d, Chairman of FMR LLC. Reported holdings consist of 2,926,000 shares of common stock beneficially owned by Fidelity Management & Research Company (Fidelity), a wholly-owned subsidiary of FMR LLC. Edward C. Johnson 3d and FMR LLC, through its control of Fidelity, and the funds each has sole power to dispose of the 2,926,000 shares owned by the funds. Members of the family of Edward C. Johnson 3d, Chairman of FMR LLC, are the predominant owners, directly or through trusts, of Series B voting common shares of FMR LLC, representing 49% of the voting power of FMR LLC. The Johnson family group and all other Series B shareholders have entered into a shareholders voting agreement under which all Series B voting common shares will be voted in accordance with the majority vote of Series B voting common shares. Accordingly, through their ownership of voting common shares and the execution of the shareholders voting agreement, members of the Johnson family may be deemed, under the Investment Company Act of 1940, to form a controlling group with respect to FMR LLC. Neither FMR LLC nor Edward C. Johnson 3d, Chairman of FMR LLC, has the sole power to vote or direct the voting of the shares owned directly by the Fidelity Funds, which power resides with the

Funds Boards of Trustees. Fidelity carries out the voting of the shares under written guidelines established by the Funds Boards of Trustees. The address for Fidelity is 82 Devonshire Street, Boston, Massachusetts 02109.

(5) Based on Schedule 13G/A filed February 10, 2011 on behalf of the following persons: Visium Balanced Master Fund, LTD, a Cayman Islands corporation (VBMF),Visium Asset Management, LP, a Delaware limited partnership (VAM), JG Asset, LLC, a Delaware limited liability company (JG Asset), and Jacob

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Gottlieb. Reported holdings consist of 2,099,197 shares of common stock and 500,000 shares of commons stock issuable upon exercise of warrants, all owned of record by VBMF. Jacob Gottlieb, Managing Member of JG Asset, which is the General Partner of VAM, which is the investment manager to pooled investment funds, may be deemed to have voting and investment power with respect to such shares. The address for Visium Balanced Master Fund, Ltd. is 950 Third Avenue, New York, NY 10022.

(6) Based on Schedule 13G filed on February 10, 2011 on behalf of Columbia Wanger Asset Management, LLC.

(7) Based on Schedule 13G/A filed February 10, 2011 on behalf of the following persons: A.M. Pappas Life Science Ventures III, LP, a Delaware limited partnership (Pappas Ventures III), PV III CEO Fund, LP, a Delaware limited partnership (the CEO Fund), AMP&A Management III, LLC, a Delaware limited liability company (AMP&A Management), and Arthur M. Pappas (Mr. Pappas). Reported holdings consist of (i) 1,505,394 shares of common stock and 201,638 shares of common stock issuable upon exercise of warrants, all owned of record by Pappas Ventures III and (ii) 93,572 shares of common stock and 12,536 shares of common stock issuable upon exercise of warrants, all owned of record by the CEO Fund. Mr. Pappas, in his role as chairman of the investment committee of AMP&A Management, the general partner of Pappas Ventures III and CEO Fund, has voting and investment authority over these shares. Mr. Pappas disclaims beneficial ownership of these shares except to the extent of his pecuniary interest arising therein. The address for both Pappas Ventures III and CEO Fund is 2520 Meridian Parkway, Suite 400, Durham, NC 27713.

(8) Based on Schedule 13G/A filed February 14, 2011 on behalf of the following persons: HBM BioCapital (EUR) L.P., a Cayman Islands limited partnership (BioCapital EUR), HBM BioCapital (USD) L.P., a Cayman Islands limited partnership (BioCapital USD) and HBM BioCapital Ltd., a Cayman Islands limited company (BioCapital Ltd.). Reporting holdings consist of (i) 1,307,840 shares of common stock and 139,263 shares of common stock issuable upon exercise of warrants, all owned of record by BioCapital (EUR) and (ii) 230,793 shares of common stock and 24,575 shares of common stock issuable upon exercise of warrants, all owned of record by BioCapital (USD), together with Biocapital (EUR), the HBM BioCapital Funds. The board of directors of BioCapital Ltd., the general partner of the HBM BioCapital Funds, has sole voting and dispositive power with respect to such shares. The board of directors of BioCapital Ltd. consists of John Arnold, Sophia Harris, Richard Coles, Dr. Andreas Wicki and John Urquhart, none of whom has individual voting or investment power with respect to the shares. The address for the HBM BioCapital Funds is c/o HBM BioCapital Ltd., Centennial Towers, 3rd Floor, 2454 West Bay Road, Grand Cayman, Cayman Islands.

(9) Includes 698,375 shares of common stock and options to purchase an additional 434,927 shares of common stock that are exercisable within 60 days of January 31, 2011, owned of record by Paul F. Truex.

(10) Includes (i) 9,637 shares of common stock owned of recorded by Dina Gonzalez, Mr. Lowe s spouse, (ii) 27,645 shares of common stock and (iii) options to purchase 124,366 shares of common stock that are exercisable within 60 days of January 31, 2011, owned of record by Mr. Lowe. On February 11, 2011, Mr. Lowe transferred his position as manager of BioVest III for no consideration and transferred 80,997 shares of common stock owned of record by BioVest III. The address for BioVest III is 25801 Industrial Blvd., Suite B, Hayward, CA 94545.

(11) Includes (i) 20,851 shares of common stock, (ii) 3,894 shares received by Dr. Hislop on February 11, 2011 in a pro rata distribution to the partners in Biovest III for no additional consideration, and (iii) options to purchase an additional 154,931 shares of common stock that are exercisable within 60 days of January 31, 2011, owned of record by Dr. Hislop.

(12)

Includes 96,928 shares of common stock and options to purchase an additional 24,033 shares of common stock that are exercisable within 60 days of January 31, 2011, all owned of record by the Debra A. Odink Living Trust, for which Dr. Odink serves as trustee.

(13) Includes 87,616 shares of common stock held by certain family members and for which Ms. Kilfoil is the beneficial owner.

(14) Includes 112,408 shares of common stock, 9,979 shares of which are subject to the Company s right of repurchase and options to purchase an additional 10,000 shares of common stock that are exercisable within 60 days of January 31, 2011, owned of record by Dr. Henney.

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(15) Includes options to purchase 23,332 shares of common stock that are exercisable within 60 days of January 31, 2011, owned of record by Ms. Bianchi. VantagePoint has sole voting and investment power with respect to these shares, and Ms. Bianchi disclaims beneficial ownership thereof except to the extent of her pecuniary interest in the shares of common stock issuable upon exercise of the option.

(16) Includes 20,443 shares of common stock owned of record by Dr. Healy, 5,111 shares of which are subject to the Company s right of repurchase and options to purchase an additional 8,000 shares of common stock that are exercisable within 60 days of January 31, 2011, owned of record by Dr. Healy.

(17) Includes options to purchase 24,244 shares of common stock that are exercisable within 60 days of January 31, 2011, owned of record by the Donald J. Santel and Kelly L. McGinnis Revocable Living Trust.

(18) Includes options to purchase 14,250 shares of common stock that are exercisable within 60 days of January 31, 2011, owned of record by Mr. Spiegelman.

(19) Includes 28,594 shares of common stock and options to purchase an additional 9,096 shares of common stock that are exercisable within 60 days of January 31, 2011, owned of record by Mr. Thompson.

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

Transactions with Related Persons, Promoters and Certain Control Persons

Since January 1, 2010, we have engaged in the following transactions with our directors, executive officers, holders of more than 5% of our voting securities, each of whom we refer to as a Beneficial Owner, or any member of the immediate family of any of the foregoing persons.

Private Placements of Securities

2009 Equity Financing and 2010 Amendments

On September 25, 2009, we entered into a stock purchase agreement, as amended to add an additional purchaser on November 3, 2009, with certain existing holders of our preferred stock for the sale of shares of our common stock equal to $20.5 million divided by the price per share at which shares of our common stock were sold to the public in our IPO minus any per-share underwriting discounts, commissions or fees. We refer to this transaction as the 2009 equity financing. Pursuant to the terms of the stock purchase agreement, the investors deposited $20.5 million into an escrow account for the purchase of the shares. On December 11, 2009, we entered into a note purchase agreement and amended escrow agreement with the investors to release $3.4 million of the $20.5 million held in the escrow account and issued such investors convertible promissory notes for the released amount, which notes we refer to as the escrow notes and which are more fully described below. The balance of the funds, or $17.1 million, held in the escrow account would be released simultaneously with the closing of an IPO in which the aggregate net proceeds to us (after underwriting discounts, commissions and fees) were at least $50.0 million. On February 24, 2010, we amended the stock purchase agreement and escrow agreement with such holders to provide that the funds held in the escrow account would be released simultaneously with the closing of an IPO in which the aggregate net proceeds to us (after underwriting discounts, commissions and fees) were at least $20.0 million. The funds held in the escrow account were released in connection with the closing of our IPO on March 4, 2010.

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The following table summarizes commitments made to participate in the 2009 equity financing by any of our current directors, executive officers, Beneficial Owners or any member of the immediate family of any of the foregoing:

Name		Aggregate Consideration to be Paid upon Closing of the 2009 Equity Financing	Shares Issued upon Release of Escrow Account(a)
VantagePoint Venture Partners IV, L.P. and affiliated entities, or Vantage Point	$	7,586,035(1)	1,152,891
Sofinnova Venture Partners VI, L.P. and affiliated entities, or Soffinova	$	4,898,784	744,496
A.M. Pappas Life Sciences Ventures III, L.P. and affiliated entities, or Pappas	$	1,279,265(2)	194,416
HBM BioCapital, L.P. and affiliated entities, or HBM BioCapital	$	1,417,958(3)	215,495
TOTAL:	$	15,182,042	2,307,298

(a) Numbers in this column calculated by dividing the Aggregate Consideration to be Paid upon Closing of the 2009 Equity Financing by $6.58 (which equals the price per share to the public in our initial public offering less the underwriting discounts, commissions and fees).

(1) Includes approximately $6,872,948 to be paid by VantagePoint Ventures IV (Q), L.P., approximately $688,053 to be paid by VantagePoint Venture Partners IV, L.P. and approximately $25,034 to be paid by VantagePoint Venture Partners IV Principals Fund, L.P.

(2) Includes approximately $1,204,428 to be paid by A.M. Pappas Life Science Ventures III, L.P. and approximately $74,837 to be paid by PV III CEO Fund, L.P.

(3) Includes approximately $1,205,264 to be paid by HBM BioCapital (EUR) L.P. and approximately $212,694 to be paid by HBM BioCapital (USD) L.P.

One additional purchaser, Shionogi & Co., Ltd., who is not a current director, executive officer, Beneficial Owner or a member of the immediate family of any of the foregoing, had also committed $0.5 million to our 2009 equity financing, and thus received 75,987 shares upon release of the escrow account.

2009 Escrow Notes and 2010 Amendments

On December 11, 2009, we sold convertible promissory notes, or the escrow notes, that were secured by a first priority security interest in all of our assets to purchase shares of our equity securities to certain of our existing investors for an aggregate purchase price of $3.4 million. The escrow notes accrued interest at a rate of 8% per annum and had a maturity date of the earlier of (i) July 17, 2010 or (ii) an event of default pursuant to the terms of the escrow notes. The escrow notes were automatically convertible into common stock upon the consummation of an IPO in which the aggregate net proceeds to us (after underwriting discounts, commissions and fees) were at least $50.0 million, at the price per share in which shares were sold to the public, minus any per-share underwriting

discounts, commissions or fees. However, if an IPO was not consummated by January 31, 2010, the escrow notes became exchangeable for exchange notes in the same principal amount plus any accrued interest thereon, which would be automatically convertible into the securities that were sold in our next equity financing at a 25% discount to the price in which such securities were sold to other investors, or they were alternatively convertible into shares of our Series B-2 convertible preferred stock in connection with a change of control of the Company. In addition, each exchange note that would be issued would be accompanied by a warrant, which would be exercisable for the security into which the accompanying exchange note, if any, was converted, at the price at which that security was sold to other investors. Depending on when the exchange notes are converted, each warrant may be exercisable for a number of shares equal to the quotient obtained by dividing (x) (i) 25% of the principal amount of the accompanying exchange notes, in the event the conversion occurred prior to April 1, 2010, or (ii) 50% of the principal amount of the accompanying exchange notes, in the event the conversion occurred on or after April 1, 2010, by (y) the purchase price of the securities into which the exchange note was ultimately converted. Furthermore, if a sale of all or substantially all of our equity interests or assets occurred prior to our next equity financing and any exchange note had not converted, we were obligated to pay such exchange note holder an amount equal to the accrued interest and

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two times the outstanding principal amount on such note in conjunction with the closing of such sale. On February 24, 2010, the note holders waived their right to exchange the escrow notes for exchange notes and warrants unless our IPO was not consummated by March 31, 2010. In addition, on February 24, 2010, we amended the note purchase agreement relating to the escrow notes to provide that the escrow notes were automatically convertible into common stock upon the consummation of an initial public offering in which the aggregate net proceeds to us (after underwriting discounts, commissions and fees) were at least $20.0 million. The escrow notes automatically converted into common stock upon the closing of our IPO on March 4, 2010, and thus no principal or interest payments were ever made on the notes and no amounts remain due under such notes. Moreover, because the escrow notes were not exchanged, no warrants were ever issued in connection with such notes.

The following table summarizes the participation in the 2009 escrow notes by any of our current directors, executive officers, Beneficial Owners or any member of the immediate family of any of the foregoing persons:

Name	Aggregate Consideration Paid	Shares Issued upon Conversion of Escrow Notes(a)
VantagePoint	$ 1,553,766(1)	240,222
Sofinnova	$ 1,003,366	155,127
Pappas	$ 262,018(2)	40,509
HBM BioCapital	$ 290,425(3)	44,901
TOTAL:	$ 3,109,575	480,759

(a) Calculated by dividing (x) the sum of (i) Aggregate Consideration to be Paid and (ii) accrued interest by (y) $6.58 (which equals the price per share to the public in our initial public offering less the underwriting discounts, commissions and fees).

(1) Consists of (i) a convertible promissory note with a principal amount of $1,407,712 purchased by VantagePoint Venture Partners IV (Q), L.P., (ii) a convertible promissory note with a principal amount of $140,927 purchased by VantagePoint Venture Partners IV, L.P. and (iii) a convertible promissory note with a principal amount of $5,127 purchased by VantagePoint Venture Partners IV Principals Fund, L.P.

(2) Consists of (i) a convertible promissory note with a principal amount of $246,690 purchased by A.M. Pappas Life Science Ventures III, L.P. and (ii) a convertible promissory note with a principal amount of $15,328 purchased by PV III CEO Fund, L.P.

(3) Consists of (i) a convertible promissory note with a principal amount of $246,861 purchased by HBM BioCapital (EUR) L.P. and (ii) a convertible promissory note with a principal amount of $43,564 purchased by HBM BioCapital (USD) L.P.

September 2010 Private Placement

On September 20, 2010, we entered into a securities purchase agreement with certain accredited investors pursuant to which we sold, on September 24, 2010, an aggregate of 10,500,000 units, with each unit consisting of one share of our

common stock and a Warrant to purchase 0.40 shares of our common stock. The purchase price per unit was $3.00. Piper Jaffray & Co. served as our lead placement agent and Wedbush PacGrow Life Sciences served as co-placement agent in the private placement. Each Warrant is exercisable in whole or in party at any time until September 24, 2015 at a per share exercise price of $3.30, subject to certain adjustments as specified in the Warrant.

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The following table summarizes the participation in the private placement by any of our current directors, executive officers, Beneficial Owners or any member of the immediate family of any of the foregoing persons:

Name	Aggregate Consideration Paid	Shares of Common Stock Issued	Shares of Common Stock Underlying Outstanding Warrants
HBM BioCapital(1)	$ 999,999	333,333	133,333
Pappas(2)	$ 1,400,001	466,667	186,667
Caduceus Private Investments IV, LP	$ 10,000,002	3,333,334	1,333,334
Visium Balanced Master Fund, Ltd.	$ 3,750,000	1,250,000	500,000
Total	$ 16,150,002	5,383,334	2,153,334

(1) Includes 283,333 shares of common stock and a Warrant to purchase 113,333 shares of common stock issued to HBM BioCapital (EUR), L.P. and 50,000 shares of common stock and a warrant to purchase 20,000 shares of common stock issued to HBM BioCapital (USD), L.P.

(2) Includes 439,352 shares of common stock and a Warrant to purchase 175,741 shares of common stock issued to A.M. Pappas Life Science Ventures III, L.P. and 27,315 shares of common stock and a Warrant to purchase 10,926 shares of common stock issued to PV III CEO Fund, L.P.

Other Related-Party Transaction

The spouse of Georgina Kilfoil, our Senior Vice President, Product Development and Clinical Operations, is the Chief Executive Officer of InClin, Inc., or InClin. Ms. Kilfoil was a consultant for InClin until joining us in March 2010. We use InClin s clinical research organization services to supplement the clinical research organization services we receive from other providers. For the period from September 9, 2004 (Date of Inception) to December 31, 2010, we paid Inclin $665,191 for the clinical research organization services it provides to us.

Procedures for Approval of Related Person Transactions

The Audit Committee shall conduct an appropriate review of all related party transactions for potential conflict of interest situations on an ongoing basis, and the approval of the Audit Committee shall be required for all such transactions. The Audit Committee may establish such policies and procedures as it deems appropriate to facilitate such review.

Director Independence

Please refer to Item 10 under the heading Committees of the Board of Directors.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Independent Registered Public Accountants Fee Information

The following is a summary of fees billed by Deloitte & Touche LLP for fiscal years ended December 2010 and 2009.

	2010	2009
Audit Fees(1)	$ 486,575	$ 362,316
Audit Related Fees(2)		
Tax Fees(3)	$ 65,000	
All Other Fees(4)	$ 2,200	
Total	$ 553,775	$ 362,316

(1) Includes fees associated with the annual audit of our financial statements, the reviews of our interim financial statements and the issuance of consent and comfort letters in connection with registration statements, including filing our registration statement on Form S-1 for our IPO.

(2) We did not incur any audit related fees.

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(3) Includes fees associated with tax advice and tax planning.

(4) Includes fees associated with our subscription to an online library of accounting literatures.

Audit Committee Pre-Approval Policies

The Audit Committee is directly responsible for the appointment, retention and termination, and for determining the compensation, of the Company s independent registered public accounting firm. The Audit Committee shall pre-approve all auditing services and the terms thereof and non-audit services (other than non-audit services prohibited under Section 10A(g) of the Exchange Act or the applicable rules of the SEC or the Public Company Accounting Oversight Board), except that pre-approval is not required for the provision of non-audit services if the de minimus provisions of Section 10A(i)(1)(B) of the Exchange Act are satisfied. The Audit Committee may delegate to one or more designated members of the Audit Committee the authority to grant pre-approvals for non-audit services, provided such approvals are presented to the Audit Committee at a subsequent meeting. All services provided by Deloitte & Touche LLP during fiscal years 2010 and 2009 were pre-approved by the Audit Committee in accordance with the pre-approval policy described above.

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PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) The following documents are filed as part of this report:

(1) *Index list to Financial Statements:*

(2) *Financial Statement Schedules*

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

(3) *Exhibits*

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

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
Anthera Pharmaceuticals, Inc.
Hayward, California

We have audited the accompanying balance sheets of Anthera Pharmaceuticals, Inc. (a development stage company) (the Company) as of December 31, 2010 and 2009, and the related statements of operations, stockholders equity (deficit) and comprehensive loss, and cash flows for each of the three years in the period ended December 31, 2010 and for the period from September 9, 2004 (Date of Inception) to December 31, 2010. These financial statements are the responsibility of the Company s management. Our responsibility is to express an opinion on the 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. The Company was not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company s internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2010 and 2009, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2010 and for the period from September 9, 2004 (Date of Inception) to December 31, 2010, in conformity with accounting principles generally accepted in the United States of America.

The Company is a development stage enterprise engaged in developing therapeutics to treat diseases associated with inflammation. As discussed in Note 1 to the financial statements, successful completion of the Company s development programs and the attainment of profitable operations are dependent upon future events, including obtaining adequate financing to complete its development activities, obtaining regulatory approvals, and achieving a level of sales adequate to support the Company s cost structure.

/s/ Deloitte & Touche LLP

San Francisco, California
March 7, 2011

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ANTHERA PHARMACEUTICALS, INC
(A Development Stage Company)

BALANCE SHEETS

	December 31, 2010	December 31, 2009
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 40,029,972	$ 3,803,384
Short term investments	23,350,922	
Prepaid expenses and other current assets	1,864,883	19,825
Total current assets	65,245,777	3,823,209
Property and equipment net	17,285	12,994
Deferred financing cost		1,922,183
Other assets		130,403
TOTAL	$ 65,263,062	$ 5,888,789
LIABILITIES AND STOCKHOLDERS DEFICIT		
CURRENT LIABILITIES:		
Accounts payable	$ 3,791,693	$ 3,145,706
Accrued clinical study	3,136,786	565,034
Accrued liabilities	467,817	767,663
Accrued payroll and related costs	609,086	153,235
Warrant and derivative liabilities		406,130
Convertible promissory notes		13,129,877
Total current liabilities	8,005,382	18,167,645
Total liabilities	8,005,382	18,167,645
Commitments and Contingencies (Note 5)		
Stockholders equity (deficit)		
Preferred stock, $0.001 par value, 5,000,000 and 11,948,557 shares authorized, 0 and 8,146,308 shares issued and outstanding as of December 31, 2010 and 2009, respectively; (aggregate liquidation value of $0 and $52,597,692 as of December 31, 2010 and 2009, respectively)		8,146
Common stock, $0.001 par value, 95,000,000 and 18,443,341 shares authorized; 32,853,032 and 1,566,199 shares issued and outstanding as of December 31, 2010 and 2009, respectively	32,853	1,566
Additional paid-in capital	162,919,216	52,941,384
Accumulated comprehensive loss	(50,622)	
Deficit accumulated the during the development stage	(105,643,767)	(65,229,952)

Total stockholders equity (deficit)	57,257,680	(12,278,856)
TOTAL	$ 65,263,062	$ 5,888,789

See accompanying notes to financial statements.

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ANTHERA PHARMACEUTICALS, INC.
(A Development Stage Company)

STATEMENTS OF OPERATIONS

	Years Ended December 31,			Cumulative Period from September 9, 2004 (Date of Inception) to December 31,
	2010	2009	2008	2010
OPERATING EXPENSES:				
Research and development	$ 29,456,742	$ 8,415,414	$ 10,882,322	$ 80,780,723
General and administrative	6,300,849	3,425,690	2,980,170	16,218,416
Total operating expenses	35,757,591	11,841,104	13,862,492	96,999,139
LOSS FROM OPERATIONS	(35,757,591)	(11,841,104)	(13,862,492)	(96,999,139)
OTHER INCOME (EXPENSE):				
Other expense and interest income, net	(859,733)	(362,388)	(118,174)	(539,593)
Mark-to-market adjustment of warrant liability	(3,796,491)			(3,796,491)
Beneficial conversion features			(4,118,544)	(4,308,544)
Total other income (expense)	(4,656,224)	(362,388)	(4,236,718)	(8,644,628)
NET LOSS	$ (40,413,815)	$ (12,203,492)	$ (18,099,210)	$ (105,643,767)
Net loss per share basic and diluted	$ (1.76)	$ (8.06)	$ (13.47)	
Weighted-average number of shares used in per share calculation basic and diluted	22,909,802	1,513,598	1,343,420	

See accompanying notes to financial statements.

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Anthera Pharmaceuticals, Inc.
(A Development Stage Company)

STATEMENTS OF STOCKHOLDERS EQUITY (DEFICIT)
AND COMPREHENSIVE LOSS

	Convertible Preferred Stock		Common Stock		Additional	Accumulated Other	Deficit Accumulated During	Total Stockholder
	Shares	Amount	Shares	Amount	Paid-In Capital	Comprehensive Loss	Development Stage	Equity (Deficit)
ATE OF CEPTION otember 9, 2004								
uance of common ck to founders for h		$	140,186	$ 140	$ 100	$	$	$ 24
uance of common ck to founders for vice			735,981	736	524			1,26
purchase of mmon stock from nder			(73,014)	(73)	(52)			(12
uance of Series A nvertible preferred ck for cash at 47 per share, net ssuance cost of 555	526,955	527			766,768			767,29
uance of Series A nvertible preferred ck in exchange service at $1.47 share	25,575	25			37,631			37,65
uance of common ck upon exercise stock options			33,292	33	4,527			4,56
class of early ercise of stock			(29,204)	(29)	(3,971)			(4,00

ions to liability							
ck-based mpensation pense related to nsultant options					842		84
t loss						(554,427)	(554,42
LANCE cember 31, 2005	552,530	552	807,241	807	806,369	(554,427)	253,30
nversion of ries A convertible ferred stock to ries A-1 nvertible preferred ck at a ratio of 1:1							
uance of ries A-2 nvertible preferred ck for cash at 14 per share net ssuance cost of 02,019	1,138,677	1,139			5,645,093		5,646,23
uance of ries A-2 nvertible preferred ck upon nversion of nvertible omissory notes at 85 and $5.14 per re	224,248	224			961,527		961,75
uance of ries A-2 nvertible preferred ck in exchange licensed hnology at $5.14 share	257,744	258			1,323,524		1,323,78
neficial nversion feature ated to conversion convertible					190,000		190,00

missory notes o Series A-1 vertible preferred ck								
uance of Series B vertible preferred ck for cash at 28 per share net ssuance cost of 0,930	2,619,568	2,620			19,036,450			19,039,07
uance of Series B vertible preferred ck in exchange licensed hnology at $7.28 share	127,297	127			926,091			926,21
uance of common ck upon exercise stock options			125,581	126	17,074			17,20
class of early rcise of stock ions to liability			(36,810)	(37)	(5,006)			(5,04
ck-based mpensation pense related to nsultant options					4,358			4,35
ck-based mpensation pense related to ployee options					4,648			4,64
t loss							(8,679,246)	(8,679,24
LANCE cember 31, 2006	4,920,064	$ 4,920	896,012	$ 896	$ 28,910,128	$	$ (9,233,673)	$ 19,682,27
uance of common ck upon exercise stock options			493,605	494	118,426			118,92
class of early rcise of stock ions liability			(240,165)	(240)	(60,333)			(60,57

uance of common ck for service			16,355	16	2,434			2,45
ck-based mpensation pense related to nsultant options					12,489			12,48
ck-based mpensation pense related to ployee options					74,861			74,86
ange in other mprehensive loss realized loss on estments						(1,812)		(1,81
t loss							(25,693,577)	(25,693,57
mprehensive loss								(25,695,38
LANCE cember 31, 2007 rried forward)	4,920,064	4,920	1,165,807	1,166	29,058,005	(1,812)	(34,927,250)	(5,864,97

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Anthera Pharmaceuticals, Inc.
(A Development Stage Company)

STATEMENTS OF STOCKHOLDERS EQUITY (DEFICIT)
AND COMPREHENSIVE LOSS (Continued)

	Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Deficit Accumulated During Development Stage	Tot Stockho Equ (Defi
	Shares	Amount	Shares	Amount				
NCE ber 31, 2007 nt forward)	4,920,064	$ 4,920	1,165,807	$ 1,166	$ 29,058,005	$ (1,812)	$ (34,927,250)	$ (5,86
sion of B convertible ed stock to B-1 tible preferred t a ratio of 1:1 e of B-2 tible preferred or cash at er share net ance cost of 27 and ts issuance)	962,066	962			6,512,241			6,51
e of B-2 tible preferred pon sion of tible sory notes at er share	2,235,661	2,235			12,197,765			12,20
e of B-2 tible preferred n lieu of payment at er share	28,517	29			155,601			15
e of warrants ection with					244,478			24

e of B-2 tible preferred								
cial sion feature to conversion vertible sory notes ries B-2 tible preferred					4,118,544			4,11
e of common pon exercise k options			179,886	180	67,925			6
e of early e of stock liability			128,180	128	12,773			1
hase of n stock upon ee tion			(18,983)	(19)	(4,856)			(
based nsation e related to ant options					51,874			5
based nsation e related to ee options					143,406			14
e in other chensive loss zed gain on ments						652		
s							(18,099,210)	(18,09
ehensive loss								(18,09
NCE ber 31, 2008	8,146,308	8,146	1,454,890	1,455	52,557,756	(1,160)	(53,026,460)	(46
e of common pon exercise k options			19,089	19	15,255			1
e of early e of stock liability			92,220	92	26,027			2
based nsation e related to ant options					88,382			8

based nsation e related to ee options						253,964			25
in other hensive loss zed gain on ments							1,160		
s								(12,203,492)	(12,20
ehensive loss									(12,20
e ber 31, 2009	8,146,308	$ 8,146	1,566,199	$ 1,566	$	52,941,384	$	$ (65,229,952)	$ (12,27
sion of tible preferred o common t a ratio of 1:1	(8,146,308)	(8,146)	8,146,308	8,146					
e of common or cash at er share net nce cost of 257			6,000,000	6,000		37,075,034			37,08
e of common pon sion of tible sory notes crued interest 5 and $6.28 re			2,511,235	2,511		13,880,601			13,88
e of common pon release of funds			2,598,780	2,599		17,097,373			17,09
e of common pon cashless e of warrants			194,474	194		218			
e of common o collaborator of milestone nt			531,914	532		3,499,468			3,50
e of common pon exercise allotment by riters net of e cost of l			604,492	605		3,959,661			3,96
e of common pon exercise k options			138,878	139		115,847			11

e of common ursuant to ee stock se plan	24,916	25	81,201			8
e of common pon private ent tion, net of e cost of 84	10,500,000	10,500	23,767,172			23,77
e of warrants unction with placement tion			5,323,944			5,32
nge of early e of stock and liability s of warrant ivative to equity in ction with sion of tible sory notes	35,836	36	1,492			
mmon stock based nsation e related to ant options based nsation e related to ee options			4,473,491			4,47
			8,399			
			693,931			69
e in other ehensive loss zed loss on ments and currency ion				(50,622)		(5
s					(40,413,815)	(40,41
ehensive loss						(40,46
NCE ber 31, 2010	32,853,032	$ 32,853	$ 162,919,216	$ (50,622)	$ (105,643,767)	$ 57,25

See accompanying notes to financial statements.

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ANTHERA PHARMACEUTICALS, INC.
(A Development Stage Company)

STATEMENTS OF CASH FLOWS

	Years Ended December 31,			September 9, 2004 (Date of Inception) to December 31,
	2010	2009	2008	2010
CASH FLOW FROM OPERATING ACTIVITIES:				
Net loss	$ (40,413,815)	$ (12,203,492)	$ (18,099,210)	$ (105,643,767)
Adjustments to reconcile net loss to net cash used in operating activities:				
Depreciation	17,281	18,451	21,997	89,608
Amortization of premium/(discount) on short-term investments	102,116			(28,132)
Realized loss on short-term investments		1,160	7,522	8,682
Realized gain from disposal of property and equipment		(214)		(214)
Stock-based compensation expense employees	693,931	253,964	143,406	1,170,810
Stock-based compensation expense consultants	8,399	88,382	51,874	166,344
Issuance of common stock for consulting service				41,366
Issuance of preferred stock for service and license fee	3,500,000			5,750,000
Issuance of preferred stock in lieu of interest payment	173,194		155,630	330,575
Beneficial conversion feature			4,118,544	4,308,544
Amortization of discount on convertible promissory notes	540,993	136,722		677,715
Amortization of debt issuance cost	227,955	79,644		307,599
Mark-to-market adjustment on warrant liability	3,796,491	(715)		3,795,776
Changes in assets and liabilities:				
Prepaid expenses and other assets	(1,845,059)	51,437	31,182	(1,864,885)
Accounts payable	2,664,378	(212,623)	(2,176,982)	4,049,054
Accrued clinical study	2,571,752	(896,145)	65,013	3,136,786
Accrued liabilities	(271,223)	473,889	135,137	460,969
Accrued payroll and related costs	455,851	37,190	(578,910)	609,086
License fee payable		(5,000,000)	(1,000,000)	
Net cash used in operating activities	(27,777,756)	(17,172,350)	(17,124,797)	(82,634,084)

INVESTING ACTIVITIES:				
Property and equipment purchases	(21,572)	(3,852)	(6,752)	(107,079)
Proceeds from disposal of property and equipment		400		400
Purchase of short-term investments	(24,948,692)			(39,749,256)
Proceeds from sale of short-term investments	1,610,000		5,818,132	16,532,132
Restricted cash		40,000	30,000	
Net cash provided by (used in) investing activities	(23,360,264)	36,548	5,841,380	(23,323,803)
FINANCING ACTIVITIES:				
Proceeds from issuance of convertible notes		13,400,000	12,200,000	26,560,000
Payment of debt issuance cost	(210,282)	(97,317)		(307,599)
Net proceeds from issuance of preferred stock			6,757,681	32,210,278
Payment of financing cost for initial public and private offering	(3,246,255)	(273,884)		(3,520,139)
Proceeds from issuance of common stock	90,788,900			90,789,015
Proceeds from issuance of common stock pursuant to employee stock purchase plan	81,226			81,226
Proceeds from exercise of stock options	115,985	15,274	68,105	340,044
Net cash provided by financing activities	87,529,574	13,044,073	19,025,786	146,152,825
Effect of exchange rate changes on cash	(164,966)			(164,966)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	36,226,588	(4,091,729)	7,742,369	40,029,972
CASH AND CASH EQUIVALENTS Beginning of period	3,803,384	7,895,113	152,744	
CASH AND CASH EQUIVALENTS End of period	$ 40,029,972	$ 3,803,384	$ 7,895,113	$ 40,029,972
SUPPLEMENTAL CASH DISCLOSURES OF CASH FLOW INFORMATION:				
Interest paid	$	$	$ 1,413	$ 15,229
Taxes paid	$ 23,159	$ 4,900	$ 4,379	$ 52,746
NONCASH INVESTING AND FINANCING ACTIVITIES:				
Conversion of convertible promissory notes and accrued interest into common stock, Series A-2 convertible preferred stock and Series B-2 convertible preferred stock	$ 13,883,112	$	$ 12,355,630	$ 27,200,493
Beneficial conversion feature	$	$	$ 4,118,544	$ 4,308,544

Unamortized debt discount charged to equity in conjunction with conversion of promissory notes into common stock	$ 185,883	$	$	$ 185,883
Reclassification of warrant and derivative liabilities to additional paid-in capital	$ 406,130	$	$	$ 406,130
Issuance costs charged to equity	$ 3,564,932	$	$	$ 3,564,932
Accrued and deferred financing and debt issuance costs	$ 27,503	$ 1,761,029	$	$ 27,503

See accompanying notes to financial statements.

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ANTHERA PHARMACEUTICALS, INC.
(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS

1. ORGANIZATION AND DESCRIPTION OF BUSINESS

Anthera Pharmaceuticals, Inc. (the Company or Anthera) was incorporated on September 9, 2004 in the state of Delaware. During 2006, the Company opened its headquarters in San Mateo, California, and subsequently moved to Hayward, California. Anthera is a biopharmaceutical company focused on developing and commercializing therapeutics to treat serious diseases associated with inflammation, including cardiovascular and autoimmune diseases. Two of the Company s primary product candidates, varespladib and A-001, are inhibitors of the family of human enzymes known as secretory phospholipase A_2, or $sPLA_2$. The Company s other primary product candidate, A-623, targets elevated levels of B-cell activating factor, or BAFF. The Company s activities since inception have consisted principally of acquiring product and technology rights, raising capital, and performing research and development. Accordingly, the Company is considered to be in the development stage as of December 31, 2010, as defined by the Financial Accounting Standard Board (FASB) Accounting Standard Codification (ASC) 915. Successful completion of the Company s development programs and, ultimately, the attainment of profitable operations are dependent on future events, including, among other things, its ability to access potential markets; secure financing; develop a customer base; attract, retain and motivate qualified personnel; and develop strategic alliances. Although management believes that the Company will be able to successfully fund its operations, there can be no assurance that the Company will be able to do so or that the Company will ever operate profitably.

The accompanying financial statements have been prepared in conformity with accounting principles generally accepted in the United States, or GAAP. From September 9, 2004 (Date of Inception) through December 31, 2010, the Company had an accumulated a deficit of $105.6 million. During the year ended December 31, 2010, the Company incurred a net loss of $40.4 million and had negative cash flows from operations of $27.8 million. The Company expects to continue to incur substantial losses and negative cash flows over the next several years during its clinical development phase. To fully execute its business plan, the Company will need to complete certain research and development activities and clinical studies. Further, the Company s product candidates will require regulatory approval prior to commercialization. These activities may span many years and require substantial expenditures to complete and may ultimately be unsuccessful. Any delays in completing these activities could adversely impact the Company. The Company plans to meet its capital requirements primarily through issuances of equity securities, debt financing, and in the longer term, revenue from product sales. Failure to generate revenue or raise additional capital would adversely affect the Company s ability to achieve its intended business objectives.

On February 26, 2010, the Company s Registration Statement on Form S-1 was declared effective for its initial public offering (IPO), pursuant to which the Company sold 6,000,000 shares of its common stock at a public offering price of $7.00 per share. The Company received net proceeds of approximately $37.1 million from this transaction. Concurrent with the closing of the IPO, the Company received an aggregate of $17.1 million from the issuance of 2,598,780 shares of its common stock to certain of its investors pursuant to a common stock purchase agreement.

On April 6, 2010, the Company sold 604,492 shares of common stock pursuant to the exercise of the underwriters over-allotment option in connection with the Company s IPO and received net proceeds of approximately $4.0 million.

On September 24, 2010, the Company completed a private placement transaction with certain accredited investors pursuant to which the Company sold an aggregate of 10,500,000 units at a purchase price of $3.00 per unit, with each unit consisting of one share of common stock and a warrant to purchase an additional 0.40 shares of common stock. Each warrant is exercisable in whole or in part at any time until September 24, 2015 at a per share exercise price of

$3.30, subject to certain adjustments as specified in the warrant. The Company received net proceeds of approximately $29.1 million.

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ANTHERA PHARMACEUTICALS, INC.
(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS (Continued)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Use of Estimates

The preparation of these financial statements in conformity with U.S. GAAP requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, expenses, and related disclosures. On an ongoing basis, management evaluates its estimates, including critical accounting policies or estimates related to clinical trial accruals, our tax provision and stock-based compensation. The Company bases its estimates on historical experience and on various other market specific and other relevant assumptions that it believes to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ significantly from these estimates.

Cash and Cash Equivalents

The Company considers all highly liquid instruments purchased with an original maturity or remaining maturities of three months or less at the date of purchase to be cash equivalents. Cash equivalents consist primarily of money market funds, for which the carrying amounts are reasonable estimates of fair value. Cash equivalents are recognized at fair value.

Short-Term Investments

The Company has designated its investments as available for sale and the investment are carried at fair value. The Company determines the appropriate classification of securities at the time of purchase and reevaluates such classification as of each balance sheet date. Securities with maturity exceeding three months but less than one year are classified as short-term investments. Realized gains and losses and declines in value judged to be other-than-temporary are determined based on specific identification method and are reported in the statements of operations. The Company includes any unrealized gains and losses on short-term investments in stockholders equity as a component of other comprehensive income (loss).

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash, cash equivalents and short-term investments. The Company s cash equivalents consist of certificates of deposit with maturities less than three months and treasury money market funds. The Company s short-term investments consist of certificates of deposit and corporate bonds with maturities exceeding three months but less than one year. The Company has not experienced any losses in such accounts. The Company believes it is not exposed to significant credit risk related to cash, cash equivalents and short-term investments.

Property and Equipment Net

Property and equipment are stated at cost, less accumulated depreciation. Depreciation is computed over the estimated useful lives of the respective assets, which range from three to five years, using the straight-line method. Repairs and maintenance costs are expensed as incurred. Leasehold improvements are stated at cost and amortized using the straight-line method over the term of the lease or the life of the related asset, whichever is shorter.

Deferred Financing Cost

Deferred financing costs included costs directly attributable to the Company s offering of its equity securities. In accordance with FASB ASC 340-10, *Other Assets and Deferred Costs*, these costs are deferred and capitalized as part of other assets. Costs attributable to the equity offerings were charged against the proceeds of the Company s IPO.

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ANTHERA PHARMACEUTICALS, INC.
(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS (Continued)

Long-Lived Assets

The Company s long-lived assets and other assets are reviewed for impairment in accordance with the guidance of the FASB ASC 360-10, *Property, Plant, and Equipment*, whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. Recoverability of an asset to be held and used is measured by a comparison of the carrying amount of an asset to the future undiscounted cash flows expected to be generated by the asset. If such asset is considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the asset exceeds its fair value. Through December 31, 2010, the Company had not experienced impairment losses on its long-lived assets.

Fair Value of Financial Instruments

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Valuation techniques used to measure fair value, as required by FASB ASC 820-10, *Fair Value Measurements and Disclosures*, must maximize the use of observable inputs and minimize the use of unobservable inputs.

The standard describes a fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value. The Company s assessment of the significance of a particular input to the fair value measurements requires judgment, and may affect the valuation of the assets and liabilities being measured and their placement within the fair value hierarchy. The three levels of input are:

Level 1 Quoted prices in active markets for identical assets or liabilities.

Level 2 Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The following is a description of the Company s valuation methodologies for assets and liabilities measured at fair value.

Where quoted prices are available in an active market, fair value is based upon quoted market prices, and are classified in Level 1 of the valuation hierarchy. If quoted market prices are not available, fair value is based upon observable inputs such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data, the assets or liabilities are classified in Level 2 of the valuation hierarchy. When quoted prices and observable inputs are unavailable, fair values are based on internally developed cash flow models and are classified in Level 3 of the valuation hierarchy. The internally developed cash flow models primarily use, as inputs, estimates for interest rates and discount rates including yields of comparable traded instruments adjusted for illiquidity and other risk factors, amount of cash flows and expected holding periods of the assets. These inputs reflect the Company s own assumptions about the assumptions market participants would use in pricing the assets including assumptions about risk developed based on the best information

available in the circumstances.

Other financial instruments, including accounts payable and accrued liabilities, are carried at cost, which the Company believes approximates fair value because of the short-term maturity of these instruments.

Research and Development Costs

Research and development expenses consist of personnel costs, including salaries, benefits and stock-based compensation, clinical studies performed by contract research organizations, or CROs, materials and supplies, licenses and fees, and overhead allocations consisting of various administrative and facilities related costs. Research and development activities are also separated into three main categories: research, clinical development, and

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ANTHERA PHARMACEUTICALS, INC.
(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS (Continued)

pharmaceutical development. Research costs typically consist of preclinical and toxicology costs. Clinical development costs include costs for Phase 1, 2 and 3 clinical studies. Pharmaceutical development costs consist of expenses incurred in connection with product formulation and chemical analysis.

The Company charges research and development costs, including clinical study costs, to expense when incurred, consistent with the guidance of FASB ASC 730, *Research and Development*. Clinical study costs are a significant component of research and development expenses. All of the Company s clinical studies are performed by third-party CROs. The Company accrues costs for clinical studies performed by CROs on a straight-line basis over the service periods specified in the contracts and adjusts the estimates, if required, based upon the Company s ongoing review of the level of effort and costs actually incurred by the CROs. The Company monitors levels of performance under each significant contract, including the extent of patient enrollment and other activities through communications with the CROs, and adjusts the estimates, if required, on a monthly basis so that clinical expenses reflect the actual effort expended by each CRO.

All material CRO contracts are terminable by the Company upon written notice and the Company is generally only liable for actual effort expended by the CROs and certain noncancelable expenses incurred at any point of termination.

Amounts paid in advance related to incomplete services will be refunded if a contract is terminated. Some contracts include additional termination payments that become due and payable if the Company terminates the contract. Such additional termination payments are only recorded if a contract is terminated.

In the fourth quarter of 2010, the Company was notified by the Internal Revenue Service that its applications for projects under the qualifying therapeutic discovery project tax credit under Section 48D of the Internal Revenue Code (48D Program) were approved. The 48D Program provided a total of approximately $977,000 of grant monies for certain research and development expenditures the Company incurred during 2009 or 2010. Under International Accounting Standard 20, *Accounting for Government Grants and Disclosure of Government Assistance*, there are two alternatives for accounting for grants of this nature. They can be recorded as either i) other income, in a separate line item under operating income, or ii) a reduction in the related expense account (research and development expense or other). The Company elected to record the grants as an offset to the related research and development expense for the year ended December 31, 2010.

Comprehensive Income (Loss)

Comprehensive income (loss) consists of certain changes in equity that are excluded from net income (loss). Specifically, the Company includes unrealized gains (losses) on available for sale securities and the effect of exchange rate changes on cash equivalents and short-term investments in other comprehensive income (loss). Comprehensive income (loss) for each period presented is set forth in the Statement of Stockholders Equity (Deficit) and Comprehensive Loss.

Income Taxes

The Company accounts for income taxes in accordance with FASB ASC 740, *Income Taxes*. FASB ASC 740 prescribes the use of the liability method whereby deferred tax asset and liability account balances are determined based on differences between the 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. The Company provides a valuation allowance, if necessary, to reduce deferred tax assets to their estimated realizable value.

Segments

The Company operates in only one segment. Management uses cash flow as the primary measure to manage its business and does not segment its business for internal reporting or decision-making.

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ANTHERA PHARMACEUTICALS, INC.
(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS (Continued)

Net Loss Per Share

The Company computes net loss per share in accordance with FASB ASC 260, *Earnings Per Share*, under which basic net loss attributable to common stockholders per share is computed by dividing income available to common stockholders (the numerator) by the weighted-average number of common shares outstanding (the denominator) during the period. Shares issued during the period and shares reacquired during the period are weighted for the portion of the period that they were outstanding. The computation of diluted EPS is similar to the computation of basic EPS except that the denominator is increased to include the number of additional common shares that would have been outstanding if the dilutive potential common shares had been issued. In addition, in computing the dilutive effect of convertible securities, the numerator is adjusted to add back any convertible preferred dividends and the after-tax amount of interest recognized in the period associated with any convertible debt. The numerator also is adjusted for any other changes in income or loss that would result from the assumed conversion of those potential common shares, such as profit-sharing expenses. Diluted EPS is identical to basic EPS since common equivalent shares are excluded from the calculation, as their effect is anti-dilutive.

The following table summarizes the Company s calculation of net loss per common share:

	Years Ended December 31,		
	2010	**2009**	**2008**
Net loss per share			
Numerator			
Net loss	$ (40,413,815)	$ (12,203,492)	$ (18,099,210)
Denominator			
Weighted-average common shares outstanding	22,957,456	1,623,677	1,573,448
Less: Weighted-average shares subject to repurchase	(47,654)	(110,079)	(230,028)
Denominator for basic and diluted net loss per share	22,909,802	1,513,598	1,343,420
Basic and diluted net loss per share	$ (1.76)	$ (8.06)	$ (13.47)

The following table shows weighted-average historical dilutive common share equivalents outstanding, which are not included in the above calculation, as the effect of their inclusion is anti-dilutive during each period.

	Years Ended December 31,		
	2010	**2009**	**2008**
Options to purchase common stock	978,231	932,544	539,234
Common stock subject to repurchase	47,654	110,079	230,028
Warrants to purchase common stock	1,496,314(2)	240,516(1)	94,230(1)
Convertible preferred stock (on an as-if-converted basis)		8,146,308	6,184,045

Restricted stock units	153,658		
	2,675,857	9,429,447	7,047,537

(1) The warrants were exercised upon the closing of the Company s IPO in March 2010.

(2) Consists of 357,136 warrants which carry a contractual term of five years and terminate upon the earlier of i) five years from the date of issuance which will be July 17 or September 9, 2014 and ii) upon certain corporate transactions and 1,139,178 warrants which carry a contractual term of five years expiring September 24, 2015. Each of the warrants contains a customary net issuance feature, which allows the warrant holder to pay the

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ANTHERA PHARMACEUTICALS, INC.
(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS (Continued)

exercise price of the warrant by forfeiting a portion of the executed warrant shares with a value equal to the aggregate exercise price.

Stock-Based Compensation

Effective January 1, 2006, the Company adopted the provisions of FASB ASC 718, *Compensation Stock Compensation*, using the modified prospective method. Compensation costs related to all equity instruments granted after January 1, 2006 are recognized at the grant-date fair value of the awards. Additionally, the Company is required to include an estimate of the number of awards that will be forfeited in calculating compensation costs, which are recognized over the requisite service period of the awards on a straight-line basis.

The Company uses the Black-Scholes option pricing model as the method for determining the estimated fair value for all stock-based awards, including employee stock options, and rights to purchase shares under our Employee Stock Purchase Plan based on their estimated fair value, and recognize the costs in our financial statements over the employees requisite service period. The Black-Scholes option pricing model requires the use of highly subjective and complex assumptions which determine the fair value of share-based awards, including the option s expected term and the price volatility of the underlying stock.

Expected Term The Company s expected term represents the period that the Company s stock-based awards are expected to be outstanding and is determined using the simplified method.

Expected Volatility Expected volatility is estimated using comparable public company volatility for similar terms.

Expected Dividend The Black-Scholes option pricing model calls for a single expected dividend yield as an input and the Company has never paid dividends and has no plans to pay dividends.

Risk-Free Interest Rate The risk-free interest rate used in the Black-Scholes option pricing method is based on the U.S. Treasury zero-coupon issues in effect at the time of grant for periods corresponding with the expected term of option.

Estimated Forfeitures The estimated forfeiture rate is determined based on the Company s historical forfeiture rates to date. The Company monitors actual expenses and periodically updates the estimate.

Equity instruments issued to nonemployees are recorded at their fair value as determined in accordance with FASB ASC 505-50, *Equity*, and are periodically revalued as the equity instruments vest and recognized as expense over the related service period.

3. DEFERRED FINANCING COST

At December 31, 2009, the Company capitalized and deferred $1,922,183 of financing cost attributable to the Company s IPO, which were charged against the proceeds upon the closing of the Company s IPO in March 2010.

4. PREPAID EXPENSES AND OTHER CURRENT ASSETS

Prepaid expenses and other current assets are comprised of the following:

	December 31, 2010	December 31, 2009
Prepaid insurance	$ 405,385	$ 4,331
Grant receivable	977,917	
Interest receivable	446,949	11
Other current assets	34,632	15,483
Prepaid expense and other current assets	$ 1,864,883	$ 19,825

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ANTHERA PHARMACEUTICALS, INC.
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5. PROPERTY AND EQUIPMENT

Property and equipment are comprised of the following:

	December 31, 2010	2009
Computers and software	$ 77,318	$ 66,548
Office equipment and furniture	16,730	16,730
Leasehold improvements	10,802	
Total property and equipment	104,850	83,278
Less accumulated depreciation	(87,565)	(70,284)
Property and equipment, net	$ 17,285	$ 12,994

The Company recorded the following depreciation expense in the respective periods:

	Years Ended December 31, 2010	2009	2008	Period from September 9, 2004 (Date of Inception) to December 31, 2010
Depreciation expense	$ 17,281	$ 18,451	$ 21,997	$ 89,608

6. CASH EQUIVALENTS AND INVESTMENTS

The Company s cash equivalents and short-term investments as of December 31, 2010 are as follows:

	Amortized Cost	Gross Unrealized Losses	Fair Value
Cash	$ 15,499,182	$	$ 15,499,182
Money market funds	19,467,096		19,467,096
Certificates of deposit	14,478,000	(6,765)	14,471,235
Corporate bonds	4,010,563	(83)	4,010,480
Investments in foreign sovereign debt	10,017,010	(84,109)	9,932,901

Total	63,471,851	(90,957)	63,380,894
Less amounts classified as cash and cash equivalents	(40,045,129)	15,157	(40,029,972)
Total	$ 23,426,722	$ (75,800)	$ 23,350,922

Realized losses recorded for the years ended December 31, 2010 and 2009 were immaterial.

7. FAIR VALUE OF INSTRUMENTS

As of December 31, 2010, the Company held $23.4 million short-term investments, which consisted of certificates of deposit, FDIC insured corporate bonds and investments in foreign sovereign debt. These securities were classified as short-term based on their maturity terms being less than one year. The Company included any unrealized gains and losses on short-term investments in stockholders equity as a component of other comprehensive income (loss). Individual securities with a fair value below the cost basis at December 31, 2010 were evaluated to determine if they were other-than-temporarily impaired.

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The following table presents the Company s fair value hierarchy for all its financial assets, including those in cash and cash equivalents, measured at fair value on a recurring basis as of December 31, 2010:

	Estimated Fair Value	Level 1	Level 2	Level 3
Money market funds	$ 19,467,096	$ 19,467,096	$	$
Certificates of deposit	14,471,235		14,471,235	
Corporate bonds	4,010,480		4,010,480	
Investments in foreign sovereign debt	9,932,901		9,932,901	
Total	$ 47,881,712	$ 19,467,096	$ 28,414,616	$

The Company did not have any financial liabilities, non-financial assets or non-financial liabilities that were required to be measured at fair value as of December 31, 2010.

8. COMMITMENTS AND CONTINGENCIES

Leases

The Company leases its office facilities under an operating lease that expired in January 2011, which was subsequently renewed through July 2011. In addition to the facility lease, the Company leases office equipment under operating lease agreements, which began in 2007 and ends in 2013.

	Years Ended December 31,			Period from September 9, 2004 (Date of Inception) to December 31,
	2010	2009	2008	2010
Office rental expense	$ 134,231	$ 165,016	$ 111,506	$ 532,256
Equipment rental expense	23,302	17,219	15,216	58,557
Total	$ 157,533	$ 182,235	$ 126,722	$ 590,813

Future minimum payments under the operating leases for the years ending December 31, 2011, 2012 and 2013 are $10,914, $3,120 and $1,560, respectively.

Other Commitments

In July 2006, the Company entered into a license agreement with Shionogi & Co., Ltd. and Eli Lilly and Company, or Eli Lilly, to develop and commercialize certain sPLA$_2$ inhibitors for the treatment of inflammatory diseases. The agreement granted the Company commercialization rights to Shionogi & Co., Ltd. s and Eli Lilly s sPLA$_2$ inhibitors, including varespladib and A-001. Under the terms of the agreement, the Company s license is worldwide, with the exception of Japan where Shionogi & Co., Ltd. has retained rights. Pursuant to this license agreement, the Company paid Shionogi & Co., Ltd. and Eli Lilly a one-time license initiation fee of $250,000 in the aggregate. Additionally, in consideration for the licensed technology, the Company issued an aggregate of 257,744 shares of Series A-2 convertible preferred stock at $5.14 per share and an aggregate of 127,297 shares of Series B-1 convertible preferred stock at $7.28 per share with a total aggregate value of $2.3 million to Shionogi & Co., Ltd. and Eli Lilly. As there is no future alternative use for the technology and in accordance with the guidance of the Research and Development topic of the FASB ASC, the Company recorded the initiation and license fees in research and development expenses during the year ended December 31, 2006. In March 2010, the Company paid $1.75 million each to Eli Lilly and Shionogi & Co., Ltd. on the forms of the Company s common stock upon the commencement of the Company s Phase 3 VISTA-16 study of varespladib.

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The Company is obligated to make additional milestone payments of up to $97.5 million upon the achievement of certain development and regulatory milestones. The Company is also obligated to pay tiered royalties, which increase as a percentage from the mid-single digits to the low double digits as net sales increase, of up to $92.5 million on future net sales of products that are developed and approved as defined by this collaboration. The Company s obligation to pay royalties with respect to each licensed product in each country will expire upon the later of (a) 10 years following the date of the first commercial sale of such licensed product in such country and (b) the first date on which generic version(s) of the applicable licensed product achieve a total market share, in the aggregate, of 25% or more of the total unit sales of wholesalers to pharmacies of licensed product and all generic versions combined in the applicable country.

On December 18, 2007, the Company entered into with Amgen, Inc. (Amgen), a worldwide, exclusive license agreement, or the Amgen Agreement, to develop and commercialize A-623 for the treatment of systemic lupus erythematosus (lupus). Under the terms of the Amgen Agreement, the Company was required to pay a nonrefundable, upfront license fee of $6.0 million, payable in two installments with the first installment due within 90 days from the effective date of the Amgen Agreement and the second installment due on the earlier of (i) termination of the Amgen Agreement by the Company or (ii) February 1, 2009. As there is no future alternative use for the technology, the Company expensed the license fee in research and development expenses during the year ended December 31, 2007.

Under the terms of the Amgen Agreement, the Company is obligated to make additional milestone payments to Amgen of up to $33.0 million upon the achievement of certain development and regulatory milestones. The Company is also obligated to pay tiered royalties on future net sales of products, ranging from the high single digits to the low double digits, that are developed and approved as defined by this collaboration. The Company s royalty obligations as to a particular licensed product will be payable, on a country-by-country and licensed product-by-licensed product basis, for the longer of (a) the date of expiration of the last to expire valid claim within the licensed patents that covers the manufacture, use or sale, offer to sell, or import of such licensed product by the Company or a sublicense in such country or (b) 10 years after the first commercial sale of the applicable licensed product in the applicable country. There were no outstanding obligations due to Amgen as of December 31, 2010 and December 31, 2009.

9. CONVERTIBLE PROMISSORY NOTES AND EQUITY FINANCING

Prior to our IPO, we used convertible debt as a method to finance our clinical trials. In connection with the completion of the Company s IPO on March 4, 2010, all of the Company s outstanding convertible debt was converted to shares of common stock. As of December 31, 2010 there is no convertible debt outstanding.

In April 2006, the Company issued convertible promissory notes to a group of individuals, or Holders, in exchange for an aggregate principal amount of $570,000, or Bridge Loan. The Bridge Loan was converted into Series A-2 convertible preferred stock at a discount of 25% resulting in a $3.85 per share price in August 2006. The interest on these loans was 7% per annum and accrued interest of $13,816 was paid out to the Holders upon closing of our Series A-2 convertible preferred stock. In connection with the conversion of the Bridge Loan, a beneficial conversion feature of $190,000 representing the difference between the conversion price and the fair value of the preferred shares multiplied by the number of shares converted was recorded as non-cash interest expense and an increase in additional paid-in capital.

In June 2006, the Company issued two additional convertible promissory notes to two new investors for an aggregate principal amount of $390,000. The notes were converted into Series A-2 convertible preferred stock at the issuance price of our Series A-2 convertible preferred stock, or $5.14 per share, in August 2006. The interest on these loans was 8% per annum. A portion of accrued interest in the amount of $1,751 was converted into Series A-2 convertible preferred stock and the remainder of accrued interest was paid out to the investors.

During February and May 2008, the Company issued convertible promissory notes to its existing investors in exchange for an aggregate principal amount of $12.2 million. The interest on these loans was 4.2% per annum. The notes and accrued interest of $155,630 were converted into Series B-2 convertible preferred stock at the issuance

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price of our Series B-2 convertible preferred stock, or $5.46 per share, in August 2008. In connection with the terms of the convertible promissory notes, a charge for the beneficial conversion feature of $4.1 million representing the difference between the conversion price and the fair value of the preferred shares multiplied by the number of shares converted was recorded as non-cash interest expense and an increase to additional paid-in capital.

On August 12, 2008, the Company issued 2,267,178 shares of its Series B-2 convertible preferred stock to certain of its existing investors in exchange for conversion of $12.2 million of aggregate principal amount of and $155,630 of aggregate interest accrued upon convertible promissory notes and 962,066 shares of its Series B-2 convertible preferred stock to two new investors in exchange for $7.0 million of cash. In connection with the issuance of our Series B-2 convertible preferred stock, the Company issued warrants to purchase 240,516 shares of the Company s common stock to those investors purchasing shares for cash.

In July and September 2009, the Company sold (i) convertible promissory notes, or the 2009 notes, that are secured by a first priority security interest in all of the Company s assets, and (ii) warrants, or the 2009 warrants, to purchase shares of the Company s equity securities to certain of its existing investors for an aggregate purchase price of $10.0 million. These transactions are collectively referred to as the 2009 bridge financing. The 2009 notes and accrued interest were converted into shares of the Company s common stock at a discount of 25% resulting in $5.25 per share in March 2010 upon the closing of the Company s IPO.

In September 2009, the Company executed a stock purchase agreement, which was amended to add an additional purchaser in November 2009, with certain existing preferred stock holders for the sale of shares of the Company s common stock equal to $20.5 million. In December 2009, the Company entered into a note purchase agreement and amended the September 2009 stock purchase and escrow agreements. The agreements provided for the release of $3.4 million of the $20.5 million held in the escrow account. The Company issued convertible promissory notes, or the escrow notes, for the released amount to the investors. The escrow funds, escrow notes and accrued interest were converted into shares of the Company s common stock at $6.58 per share in March 2010 upon the closing of the Company s IPO. The conversion price reflected the Company s IPO price of $7.00 per share, minus per-share underwriting discount and commission fees.

10. STOCKHOLDERS EQUITY

Common Stock

At December 31, 2010, the Company is authorized to issue 100,000,000 shares of capital stock, of which 95,000,000 shares are designated as common stock, par value $0.001 per share. Holders of common stock are entitled to one vote per share on all matters to be voted upon by the stockholders of the Company. Holders of common stock are entitled to receive ratably dividends, if any, as may be declared by the Board of Directors. No dividends have been declared to date.

At December 31, 2010, the Company had reserved the following shares for future issuance:

Common stock warrants outstanding	4,557,136
Common stock options outstanding	1,275,991

Restricted stock units outstanding	302,500
Common stock options available for future grant under stock option plan	35,389
Total	6,171,016

Convertible Preferred Stock

In connection with the completion of the Company s IPO on March 4, 2010, all of the Company s shares of preferred stock outstanding at the time of the offering were converted into an aggregate of 8,146,308 shares of common stock. As of December 31, 2010, no liquidation preference remained.

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The Company s Fifth Amended and Restated Certificate of Incorporation designates 5,000,000 shares of the Company s capital stock as undesignated preferred stock.

Warrants

In August 2008, in connection with the issuance of Series B-2 convertible preferred stock, the Company issued 240,516 warrants for the purchase of common stock at $1.34 per share to two new investors. The warrants expired upon the earliest of (i) seven years from the issuance date, (ii) the closing date of the Company s IPO or (iii) upon consummation by the Company of any consolidation or merger. The Company valued the warrants using the Black-Scholes option pricing model with the following assumptions: expected volatility of 72%, risk-free interest rate of 3.46% and expected term of seven years. The fair value of the warrants was calculated to be $224,478 and recorded as issuance cost and an increase to additional paid-in capital. As of December 31, 2009, 240,516, warrants remain outstanding. Each of the warrants contained a net issuance feature, which allowed the warrant holder to pay the exercise price of the warrant by forfeiting a portion of the exercised warrant shares with a value equal to the aggregate exercise. The warrants were exercised upon the closing of the Company s IPO on March 4, 2010.

In connection with the issuance of the 2009 notes for $10.0 million, as discussed in Note 9, the Company issued warrants to each note holder to purchase shares of its equity securities. Each 2009 warrant is exercisable for the security into which each 2009 note is converted, at the price at which that security is sold to other investors. Depending on when the 2009 notes are converted, each 2009 warrant may be exercisable for a number of shares equal to the quotient obtained by dividing (x) (i) 25% of the principal amount of the accompanying 2009 notes, in the event the conversion occurs prior to April 1, 2010, or (ii) 50% of the principal amount of the accompanying 2009 notes, in the event the conversion occurs on or after April 1, 2010, by (y) the purchase price of the securities into which the note is ultimately converted. The Company accounted for the 2009 warrants in accordance with FASB ASC 480, *Distinguishing Liabilities from Equity*, which requires that a financial instrument, other than outstanding shares, that, at inception, is indexed to an obligation to repurchase the issuer s equity shares, regardless of the timing of the redemption feature, and may require the issuer to settle the obligation by transferring assets, be classified as liability through the completion of the Company s IPO. The Company measured the fair value of the 2009 warrants using the Black-Scholes option pricing model on issuance date and adjusted the fair value at the end of each reporting period based on the following assumptions:

	March 31, 2010	December 31, 2009	September 30, 2009
Expected Volatility	94%	78%	78%
Dividend Yield	0%	0%	0%
Risk-Free Interest Rate	2.28%	2.34%	2.38%
Expected Term (years)	5.00	5.00	5.00

The Company then applied probability factors to the different possible conversion scenarios and calculated the initial fair value of the 2009 warrants to be $320,000, which amount was recorded as a discount to the 2009 notes. The discount was amortized as interest expense over the terms of the 2009 notes. The Company re-measured the fair value of the 2009 warrants on December 31, 2009 and recorded the change in fair value in non-operating income. Upon

conversion of the 2009 notes into shares of common stock at the completion of the Company s IPO, the fair value of the 2009 warrants was re-measured again by the Company and the change in fair value of $1.5 million was recorded in non-operating expense during the year ended December 31, 2010. Concurrent with the conversion of the 2009 notes, the Company calculated the number of warrant shares to be 357,136 based on 25% of the principal amount of the accompanying 2009 notes and the IPO price of the Company s common stock of $7.00 per share. The warrant liability and unamortized discount were reclassified to additional paid-in-capital as a result of the conversion of the 2009 notes.

In connection with the issuance of the escrow notes for $3.4 million, as discussed in Note 9, which were exchangeable for exchange notes, each exchange note that was issued would be accompanied by a warrant, which was exercisable for the security into which the accompanying exchange note, if any, was converted, at the price at

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which that security was sold to other investors. Depending on when the exchange notes are converted, each warrant may be exercisable for a number of shares equal to the quotient obtained by dividing (x) (i) 25% of the principal amount of the accompanying exchange notes, in the event the conversion occurs prior to April 1, 2010, or (ii) 50% of the principal amount of the accompanying exchange notes, in the event the conversion occurs on or after April 1, 2010, by (y) the purchase price of the securities into which the exchange note is ultimately converted. The Company accounts for the potential issuance of the warrants in accordance with FASB ASC 480. The Company measured the fair value of its derivative using the Black-Scholes option pricing model with the following assumptions: expected volatility of 78%, risk-free interest rate of 2.34% and expected term of five years. The Company then applied probability factors to the different possible exchange and conversion scenarios and calculated the fair value of the warrants to be $86,845, which amount was recorded as a discount to the escrow notes. The discount was amortized as interest expense over the terms of the escrow notes. The escrow notes were converted into shares of the Company s common stock upon the closing of its IPO. As a result of the conversion taking place prior to the exchange of the escrow notes into exchange notes, the Company s obligation to issue the warrants was eliminated. Consequently, the Company reclassified the unamortized discount into additional paid-in capital and reduced the fair value of the warrant liability to zero.

On September 24, 2010, the Company closed a private placement transaction with certain accredited investors pursuant to which the Company sold an aggregate of 10,500,000 units at a purchase price of $3.00 per unit, with each unit consisting of one share of common stock and a warrant to purchase an additional 0.40 shares of common stock. Each warrant is exercisable in whole or in part at any time until September 24, 2015 at a per share exercise price of $3.30, subject to certain adjustments as specified in the warrant. The Company valued the warrant using the Black-Scholes option pricing model with the following assumptions: expected volatility of 64%, risk-free interest rate of 1.37% and expected term of five years. The fair value of the warrants was calculated to be $5.3 million and has been recorded in additional paid-in capital. As of December 31, 2010, 4,200,000 warrants remain outstanding. Each of the warrants contains a net issuance feature, which allows the warrant holder to pay the exercise price of the warrant by forfeiting a portion of the exercised warrant shares with a value equal to the aggregate exercise.

Embedded Derivative

The 2009 notes and the escrow notes discussed in Note 9 contained a contingent automatic redemption feature and a contingent put option that meet the definition of an embedded derivative as defined in FASB ASC 815, *Derivatives and Hedging*, because these notes contain features with implicit or explicit terms that affect some or all of the cash flows or the value of other exchanges required by a contract in a manner similar to a derivative instrument. As a result, the Company evaluated these embedded derivative features under the guidance of FASB ASC 815 and determined that the embedded derivative features should be separated from the 2009 notes and escrow notes and recognized as derivative instruments. Pursuant to the guidance of FASB ASC 815, if a hybrid instrument contains more than one embedded derivative feature that would individually warrant separate accounting as a derivative instrument, those embedded derivative features shall be bundled together as a single, compound embedded derivative that shall then be bifurcated and accounted for separately from the host contract unless a fair value election is made. Since the Company may not make a fair value election, the contingent automatic redemption and the contingent put option should be bundled together as a single, compound embedded derivative and separated from the 2009 notes and escrow notes. The Company recognized the bundled embedded derivative as a derivative liability with initial and subsequent measurements at fair value and changes in fair value recorded in earnings. Upon conversion of the 2009 notes and escrow notes into shares of common stock at the completion of the Company s IPO, the Company re-measured the fair

value of the embedded derivative and recorded a charge of $2.5 million in non-operating expense during the year ended December 31, 2010.

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11. STOCK-BASED AWARDS

Option Plan

The Company s 2005 Equity Incentive Plan (the 2005 Plan) was adopted by the board of directors in January 2005. The 2005 Plan permits the granting of incentive and non-statutory stock options, restricted stock, stock appreciation rights, performance units, performance shares and other stock awards to eligible employees, directors and consultants. The Company grants options to purchase shares of common stock under the 2005 Plan at no less than the fair market value of the underlying common stock as of the date of grant. Options granted under the 2005 Plan have a maximum term of 10 years and generally vest over four years at the rate of 25% of total shares underlying the option. Selected grants vest immediately or over a shorter vesting period.

The 2005 Plan allows the option holders to exercise their options prior to vesting. Unvested shares are subject to repurchase by the Company at the option of the Company. Unvested shares subject to repurchase have been excluded from the number of shares outstanding. Option activity in the table below includes options exercised prior to vesting. At December 31, 2008 and 2009 and December 31, 2010, 161,646, 69,424 and 27,321 shares were subject to repurchase with a corresponding liability of $56,715, $31,131, and $27,973, respectively.

On February 1, 2010, the Company s board of directors adopted the 2010 Stock Option and Incentive Plan (the 2010 Plan) effective upon consummation of the IPO, which was also approved by the Company s stockholders. The Company initially reserved 233,644 shares of common stock for issuance under the 2010 Plan, plus 35,670 shares remaining available for grant under the Company s 2005 Plan, plus any additional shares returned under the 2005 Plan as a result of the cancellation of options or the repurchase of shares issued pursuant to the 2005 Plan. On July 9, 2010, the Company s stockholders approved an increase to the aggregate number of shares initially available for grant under the 2010 Plan by 200,000 shares to 433,644 shares of common stock, plus 35,670 shares remaining available for grant under the 2005 Plan, plus any additional shares referred under the 2005 Plan as a result of the cancellation of options or repurchase of shares issued under the 2005 Plan. In addition, the 2010 Plan provides for annual increases in the number of shares available for issuance thereunder on the first day of each fiscal year, beginning with the 2011 fiscal year, equal to four percent (4%) of the outstanding shares of the Company s common stock on the last day of the immediately preceding fiscal year. The maximum aggregate number of shares of stock that may be issued in the form of incentive stock options shall not exceed the lesser of (i) the number of shares reserved and available for issuance under the Plan or (ii) 1,460,280 shares of stock, subject in all cases to adjustment including reorganization, recapitalization, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Company s capital stock. The 2010 Plan permits the granting of incentive and non-statutory stock options, restricted and unrestricted stock awards, restricted stock units, stock appreciation rights, performance share awards, cash-based awards and dividend equivalent rights to eligible employees, directors and consultants. The option exercise price of an option granted under the 2010 Plan may not be less than 100% of the fair market value of a share of the Company s common stock on the date the stock option is granted. Options granted under the 2010 Plan have a maximum term of 10 years and generally vest over four years. In addition, in the case of certain large stockholders, the minimum exercise price of incentive options must equal 110% of fair market value on the date of grant and the maximum term is limited to five years.

The 2010 Plan does not allow the option holders to exercise their options prior to vesting.

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The following table summarizes stock option activity for the Company from inception to December 31, 2010:

	Number of Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life in Years	Aggregate Intrinsic Value
Balance at December 31, 2007	847,735	$0.26	8.08	
Options granted	327,973	$1.34		
Options exercised	(179,886)	$0.38		
Options cancelled	(38,697)	$0.42		
Repurchase		$0.26		
Balance at December 31, 2008	957,125	$0.60	8.28	
Options granted	405,358	$1.69		
Options exercised	(19,089)	$0.80		
Options cancelled	(19,618)	$0.92		
Balance at December 31, 2009	1,323,776	$0.92	7.94	
Options granted	112,000	$4.82		
Options exercised	(138,878)	$0.84		
Options cancelled	(20,907)	$1.50		
Repurchase		$0.26		
Balance at December 31, 2010	1,275,991	$1.26	7.07	$4,700,543
Ending vested at December 31, 2010	1,049,865	$0.97	6.81	$4,138,497
Ending vested and expected to vest at December 31, 2010	1,275,991	$1.26	7.07	$4,700,543

The intrinsic value of stock options represents the difference between the exercise price of stock options and the market price of our stock on that day for all in-the-money options. Additional information related to our stock options is summarized below (in millions except per share information):

	Period from September 9,

	Years Ended December 31,			2004 (Date of Inception) to December 31,
	2010	2009	2008	2010
Weighted-average fair value per share granted	$ 3.10	$ 1.01	$ 0.96	$ 0.57
Intrinsic value of options exercised	$ 699,366	$ 13,550	$ 109,741	$ 828,200
Proceeds received from the exercise of stock options	$ 115,986	$ 15,274	$ 68,105	$ 345,151
Grant date fair value of options vested	$ 235,232	$ 358,121	$ 113,166	$ 819,565

There was $500,483 of total unrecognized compensation expense as of December 31, 2010 related to options. The unrecognized compensation expense will be amortized on a straight-line basis over a weighted-average remaining period of 1.31 years.

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Information about stock options outstanding, vested and expected to vest as of December 31, 2010, is as follows:

Outstanding, Vested and Expected to Vest				Options Vested	
Range of Exercise Price		Number of Shares	Weighted-Average Remaining Contractual Life (In Years)	Weighted Average Exercise Price	Number of Shares
$0.14	$0.14	4,672	3.33	$ 0.14	4,672
$0.26	$0.26	567,161	6.14	$ 0.26	559,969
$1.34	$1.34	246,352	7.16	$ 1.34	180,053
$1.51	$1.51	334,124	7.71	$ 1.51	257,239
$4.19	$7.70	123,682	9.56	$ 5.09	47,932
		1,275,991	7.07	$ 1.26	1,049,865

As of December 31, 2010, there are 35,389 shares available for grant under the 2010 Plan.

Restricted Stock Units

During 2010, the Company granted restricted stock unit awards under its 2010 Plan representing an aggregate of 333,000 shares of common stock. The restricted stock units granted represent a right to receive shares of common stock at a future date determined in accordance with the participant s award agreement. An exercise price and monetary payment are not required for receipt of restricted stock units or the shares issued in settlement of the award. Instead, consideration is furnished in the form of the participant s services to the Company. Substantially all of the restricted stock units vest over four years. Compensation cost for these awards is based on the closing price of the Company s common stock on the date of grant and recognized as compensation expense on a straight-line basis over the requisite service period. Compensation expense recognized was $371,283 for the year ended December 31, 2010. At December 31, 2010, the unrecognized compensation cost related to these awards was $1.34 million, which is expected to be recognized on a straight-line basis over 2.71 years.

The following table summarizes activity related to our restricted stock units:

	Shares	Weighted-Average Grant Date Fair Value

Outstanding at December 31, 2009			
Restricted stock units granted	333,000	$	5.15
Restricted stock units vested			
Restricted stock units forfeitures and cancellations	(30,500)	$	5.36
Outstanding at December 31, 2010	302,500	$	5.13

Early Exercise of Employee Options

Stock options granted under the Company s 2005 Plan provide employee option holders the right to elect to exercise unvested options in exchange for restricted common stock. Unvested shares, which amounted to 27,321 and 69,424 at December 31, 2010, and December 31, 2009, respectively, were subject to a repurchase right held by the Company at the original issuance price in the event the optionees employment is terminated either voluntarily or involuntarily. For exercises of employee options, this right lapses 25% on the first anniversary of the vesting start date and in 36 equal monthly amounts thereafter. These repurchase terms are considered to be a forfeiture provision and do not result in variable accounting. The shares purchased by the employees pursuant to the early exercise of

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ANTHERA PHARMACEUTICALS, INC.
(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS (Continued)

stock options are not deemed to be outstanding until those shares vest. In addition, cash received from employees for exercise of unvested options is treated as a refundable deposit shown as a liability in the Company s financial statements. For the year ended December 31, 2010 and the year ended December 31, 2009, cash received for early exercise of options totaled $24,714 and $6,615, respectively. As the shares vest, the shares and liability are released into common stock and additional paid-in capital.

The activity of early exercise of options granted to employees is as follows:

Unvested Shares	Shares	Weighted-Average Grant Price
Balance as of December 31, 2007	289,824	$ 0.24
Early exercise of options	59,191	$ 0.62
Vested	(168,386)	$ 0.22
Repurchases	(18,983)	$ 0.26
Balance as of December 31, 2008	161,646	$ 0.34
Early exercise of options	4,381	$ 1.51
Vested	(96,603)	$ 0.35
Balance as of December 31, 2009	69,424	$ 0.45
Early exercise of options	18,011	$ 1.37
Vested	(53,847)	$ 0.34
Repurchases	(6,267)	$ 0.26
Balance as of December 31, 2010	27,321	$ 1.02

2010 Employee Stock Purchase Plan

In July 2010, the Company s stockholders approved the ESPP. The Company reserved 100,000 shares of common stock for issuance thereunder plus on January 1, 2011 and each January 1 thereafter, the number of shares of stock reserved and available for issuance under the Plan shall be cumulatively increased by the lesser of (i) one percent (1%) of the number of shares of common stock issued and outstanding on the immediately preceding December 31 or (ii) 250,000 shares of common stock.

Under the ESPP, eligible employees of the Company and certain designated subsidiaries of the Company may authorize the Company to deduct amounts from their compensation, which amounts are used to enable the employees to purchase shares of the Company s common stock. The purchase price per share is 85% of the fair market value of the common stock as of the first date or the ending date of the applicable semi-annual purchase period, whichever is less (the Look-Back Provision). The 15% discount and the Look-Back Provision make the ESPP compensatory under

ASC 718-50-25-2, *Compensation Stock Compensation Employee Share Purchase Plans Recognition*. The Black-Scholes option pricing model was used to value the employee stock purchase rights. For the year ended December 31, 2010 and the period from September 9, 2004 (Inception Date) through

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ANTHERA PHARMACEUTICALS, INC.
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NOTES TO FINANCIAL STATEMENTS (Continued)

December 31, 2010, the following weighted-average assumptions were used in the valuation of the stock purchase rights:

	Year Ended December 31, 2010	Period from September 9, 2004 (Date of Inception) to December 31, 2010
Expected Volatility	67%	67%
Dividend Yield	0%	0%
Risk-Free Interest Rate	0.16%	0.16%
Expected Term (years)	0.33	0.33

The Company received $81,226 in contribution from participants during the year ended December 31, 2010. Compensation expense recognized for the year ended December 31, 2010 was $28,891. As of December 31, 2010, 24,916 shares have been issued and 75,084 shares were available for future purchase under the ESPP.

Stock-Based Compensation Expense

Total employee stock-based compensation expense recognized under FASB ASC 718 was as follows:

	Years Ended December 31,			Period from September 9, 2004 (Date of Inception) to December 31, 2010
	2010	2009	2008	
Research and development	$ 223,229	$ 101,395	$ 45,544	$ 417,231
General and administrative	470,702	152,569	97,862	753,579
Total employee stock-based compensation	$ 693,931	$ 253,964	$ 143,406	$ 1,170,810

The assumptions used in the Black-Scholes option-pricing model are as follows:

	Period from September 9,

	Years Ended December 31,			2004 (Date of Inception) to December 31,
	2010	2009	2008	2010
Expected Volatility	69%	74%	81%	79%
Dividend Yield	0%	0%	0%	0%
Risk-Free Interest Rate	1.91%	2.10%	3.08%	3.86%
Expected Term (years)	6.25	6.25	6.25	6.25

Nonemployee Stock-Based Compensation

The Company accounts for stock options granted to nonemployees as required by FASB ASC 718. In connection with stock options granted to consultants, the Company recorded $51,874, $88,382, $8,399 and $166,344 for nonemployee stock-based compensation during the years ended December 31, 2008, 2009, 2010 and for the period from September 9, 2004 (Date of Inception) to December 31, 2010, respectively. These amounts were based upon the fair value of the vested portion of the grants.

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ANTHERA PHARMACEUTICALS, INC.
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NOTES TO FINANCIAL STATEMENTS (Continued)

The assumptions used in the Black-Scholes option-pricing model are as follows:

	Years Ended December 31,			Period from September 9, 2004 (Date of Inception) to December 31,
	2010	2009	2008	2010
Expected Volatility	98%	98%	98%	98%
Dividend Yield	0%	0%	0%	0%
Risk-Free Interest Rate	3.16%	3.57%	3.67%	3.67%
Expected Term (years)	7.86	9.94	9.26	9.63

Amounts expensed during the remaining vesting period will be determined based on the fair value at the time of vesting.

12. EMPLOYEE BENEFIT PLAN

The Company maintains a defined contribution 401(k) plan, or the 401(k) Plan. Employee contributions are voluntary and are determined on an individual basis, limited by the maximum amounts allowable under federal tax regulations. The Company has made no contributions to the 401(k) Plan since its inception.

13. INCOME TAXES

The Company has incurred net operating losses since inception. The Company has not reflected any benefit of such net operating loss carryforwards in the accompanying financial statements and has established a full valuation allowance against its deferred tax assets.

Deferred income taxes reflect the net tax effects of (a) temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes, and (b) operating losses and tax credit carryforwards.

The significant components of the Company s deferred tax assets for the years ended December 31, 2010 and 2009 are as follows:

	December 31,	
	2010	2009
Deferred tax assets:		

Net operating loss carryforwards	$ 33,300,399	$ 20,254,375
Tax credits	3,543,005	2,378,197
Intangible assets	3,014,136	3,279,699
Accrued bonus	230,189	61,040
Accrued liabilities	1,249,792	91,529
Stock-based compensation	269,661	68,439
Other	34,109	5,828
Total deferred tax assets	41,641,291	26,139,107
Deferred tax liabilities		
Valuation allowance	(41,641,291)	(26,139,107)
Net deferred tax asset	$	$

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ANTHERA PHARMACEUTICALS, INC.
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NOTES TO FINANCIAL STATEMENTS (Continued)

A reconciliation of the statutory tax rates and the effective tax rates for the years ended December 31, 2008, 2009 and 2010 is as follows:

	December 31,		
	2010	**2009**	**2008**
Statutory rate	34%	34%	34%
State tax	7%	6%	5%
Tax credit	2%	1%	2%
Beneficial conversion feature	0%	0%	(8)%
Other	(4)%	(3)%	0%
Valuation allowance	(38)%	(38)%	(33)%
Effective tax rates	0%	0%	0%

Realization of the future tax benefits is dependent on the Company s ability to generate sufficient taxable income within the carryforward period. Because of the Company s recent history of operating losses, management believes that the deferred tax assets arising from the above-mentioned future tax benefits are currently not likely to be realized and, accordingly, has provided a full valuation allowance. The net valuation allowance increased by $4,690,989 and $15,502,184 for the years ended December 31, 2009 and 2010, and $41,641,291 for the period from September 9, 2004 (Date of Inception) to December 31, 2010.

Net operating losses and tax return credit carryforwards as of December 31, 2010, are as follows:

	Amount	**Expiration Years**
Net operating losses federal	$ 83,553,933	Beginning 2024
Net operating losses state	$ 83,848,589	Beginning 2014
Tax return credits federal	$ 2,491,822	Beginning 2024
Tax return credits state	$ 1,592,701	Not applicable

Utilization of the net operating loss carryforwards and credits may be subject to a substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code of 1986, as amended, or the IRC, and similar state provisions. The Company has not performed a detailed analysis to determine whether an ownership change under Section 382 of the IRC has occurred. The effect of an ownership change would be the imposition of an annual limitation on the use of net operating loss carryforwards attributable to periods before the change.

As of December 31, 2010, the Company had unrecognized tax benefits of $1,375,594, all of which would not currently affect the Company s effective tax rate if recognized due to the Company s deferred tax assets being fully offset by a valuation allowance. The Company did not anticipate any significant change to the unrecognized tax benefit balance as of December 31, 2010. A reconciliation of the beginning and ending amount of unrecognized tax

benefits is as follows:

	Amount
Balance as December 31, 2007	$ 646,181
Additions based on tax positions related to current year	162,381
Balance as of December 31, 2008	808,562
Additions based on tax positions related to current year	83,848
Balance as of December 31, 2009	892,410
Additions based on tax positions related to current year	469,098
Balance as of December 31, 2010	$ 1,361,508

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ANTHERA PHARMACEUTICALS, INC.
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NOTES TO FINANCIAL STATEMENTS (Continued)

The Company would classify interest and penalties related to uncertain tax positions in income tax expense, if applicable. There was no interest expense or penalties related to unrecognized tax benefits recorded through December 31, 2010. The tax years 2004 through 2010 remain open to examination by one or more major taxing jurisdictions to which the Company is subject.

The Company does not anticipate that total unrecognized net tax benefits will significantly change prior to the end of 2010.

14. SELECTED QUARTERLY FINANCIAL DATA (unaudited)

	Quarter Ended			
	March 31,	June 30,	September 30,	December 31,
2010				
OPERATING EXPENSES:				
Research and development	$ 5,241,814	$ 6,438,149	$ 6,885,125	$ 10,891,654
General and administrative	1,224,110	1,509,869	1,510,021	2,056,849
LOSS FROM OPERATIONS	(6,465,924)	(7,948,018)	(8,395,146)	(12,948,503)
Other expense and interest income, net	(4,637,868)	11,655	61,606	(91,617)
NET LOSS	$ (11,103,792)	$ (7,936,363)	$ (8,333,540)	$ (13,040,120)
Net loss per share basic and diluted	$ (0.83)	$ (0.36)	$ (0.36)	$ (0.40)
Shares used in computing basic and diluted net loss per share	13,344,231	22,223,941	22,964,279	32,828,697

	Quarter Ended			
	March 31,	June 30,	September 30,	December 31,
2009				
OPERATING EXPENSES:				
Research and development	$ 2,914,766	$ 2,286,415	$ 2,525,948	$ 688,285
General and administrative	846,243	999,331	884,908	695,208
LOSS FROM OPERATIONS	(3,761,009)	(3,285,746)	(3,410,856)	(1,383,493)
Other expense and interest income, net	(24,351)	(50,310)	(193,556)	(94,171)

NET LOSS		$ (3,785,360)		$ (3,336,056)		$ (3,604,412)		$ (1,477,664)
Net loss per share	basic and diluted	$ (2.57)		$ (2.23)		$ (2.37)		$ (0.95)
Shares used in computing basic and diluted net loss per share		1,470,722		1,496,011		1,520,875		1,557,708

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ANTHERA PHARMACEUTICALS, INC.
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NOTES TO FINANCIAL STATEMENTS (Continued)

15. RELATED PARTY TRANSACTIONS

The Company engaged an outside service provider where one of the founders is employed for clinical management services. In consideration for the services rendered, the Company paid the following fees:

	Years Ended December 31,			Period from September 9, 2004 (Date of Inception) to December 31,
	2010	2009	2008	2010
Project management fees	$ 533,617	$ 38,274	$ 22,200	$ 665,191

As of December 31, 2010, the Company had $519,386 payable to this organization for services performed during the year.

16. SUBSEQUENT EVENTS

The Company evaluated all events or transactions that occurred after December 31, 2010. The Company did not have any material subsequent events that require adjustment or disclosure in these financial statements.

17. RECENT ACCOUNTING PRONOUNCEMENTS

There were no recent accounting pronouncements that have not yet been adopted by the Company that are expected to have a material impact on the financial statements.

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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.

ANTHERA PHARMACEUTICALS, INC.

By: /s/ Paul F. Truex

Paul F. Truex
President and Chief Executive Officer
(Principal Executive Officer)

Dated: March 7, 2011

POWER OF ATTORNEY

We, the undersigned officers and directors of Anthera Pharmaceuticals, Inc., hereby severally constitute and appoint Paul F. Truex and Christopher P. Lowe, and each of them singly (with full power to each of them to act alone), our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them for him and in his name, place and stead, and in any and all capacities, to sign for us and in our names in the capacities indicated below any and all amendments to this report, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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/ Paul F. Truex Paul F. Truex	President, Chief Executive Officer and Director (Principal Executive Officer)	March 7, 2011
/s/ Christopher P. Lowe Christopher P. Lowe	Chief Financial Officer (Principal Financial and Accounting Officer)	March 7, 2011
/s/ Christopher S. Henney Christopher S. Henney	Chairman of the Board of Directors	March 7, 2011
/s/ Annette Bianchi	Director	March 7, 2011

Annette Bianchi		
/s/ James I. Healy	Director	March 7, 2011
James I. Healy		
/s/ Donald J. Santel	Director	March 7, 2011
Donald J. Santel		
/s/ Daniel K. Spiegelman	Director	March 7, 2011
Daniel K. Spiegelman		
/s/ David E. Thompson	Director	March 7, 2011
David E. Thompson		
/s/ Peter A. Thompson	Director	March 7, 2011
Peter A. Thompson		

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Exhibit Index

Number	Description
3.1	Fifth Amended and Restated Certificate of Incorporation(1)
3.2	Amended and Restated Bylaws(2)
4.1	Specimen certificate evidencing shares of common stock(3)
4.2	Second Amended and Restated Investor Rights Agreement by and among the Company and the other persons and entities party thereto, dated as of July 17, 2009(3)
# 10.1	2005 Equity Incentive Plan and form agreements thereunder(4)
# 10.2	Amended and Restated 2010 Stock Option and Incentive Plan(5)
# 10.3	Form of Amended and Restated Indemnification Agreement(4)
# 10.4	Form of Amended and Restated Change in Control Agreement(6)
# 10.5	Form of Amended and Restated Severance Benefits Agreement(6)
+ 10.6	License Agreement among Eli Lilly and Company, Shionogi & Co., Ltd. and the Company, dated as of July 31, 2006(4)
+ 10.7	Agreement between Shionogi & Co., Ltd. and the Company, dated as of September 7, 2009 (amending License Agreement among Eli Lilly and Company, Shionogi & Co., Ltd. and the Company, dated as of July 31, 2006)(4)
+ 10.8	Agreement between Eli Lilly and Company and the Company, dated as of September 15, 2009 (amending License Agreement among Eli Lilly Company, Shionogi & Co., Ltd. and the Company, dated as of July 31, 2006)(4)
+ 10.9	Amended and Restated Technology Transfer Letter Agreement between Eli Lilly and Company and the Company, dated as of July 12, 2006(4)
+ 10.10	License Agreement between Amgen Inc. and the Company, dated as of December 18, 2007(4)
10.11	Consent to Sublease, by and among the Company, NewTower Trust Company Multi-Employer Property Trust and Guava Technologies, dated as of September 12, 2008(4)
10.12	Sublease by and between the Company and Guava Technologies, dated as of August 1, 2008(4)
10.13	Note and Warrant Purchase Agreement by and among the Company and the other persons and entities party thereto, dated as of July 17, 2009(4)
10.14	Form of Senior Secured Promissory Note sold pursuant to that Note and Warrant Purchase Agreement, dated as of July 17, 2009(4)
10.15	Form of Stock Purchase Warrant sold pursuant to that Note and Warrant Purchase Agreement, dated as of July 17, 2009(4)
10.16	Stock Purchase Agreement by and among the Company and the other persons and entities party thereto, dated as of September 25, 2009(6)
10.17	Escrow Agreement by and among the Company, Fremont Bank and the other persons and entities party thereto, dated as of September 25, 2009(6)
10.18	Amendment No. 1 to License Agreement between Amgen Inc. and the Company, dated as of October 16, 2009(6)
10.19	Amendment No. 1 to Stock Purchase Agreement and Escrow Agreement by and among the Company and the other persons and entities party thereto, dated as of November 3, 2009(7)
10.20	Amendment No. 2 to Stock Purchase Agreement and Escrow Agreement by and among the Company and the other persons and entities party thereto, dated as of December 11, 2009(3)
10.21	Note Purchase Agreement by and among the Company and the other persons and entities party thereto, dated as of December 11, 2009(3)

10.22	Form of Senior Secured Promissory Note sold pursuant to that certain Note Purchase Agreement, dated as of December 11, 2009(3)
10.23	Form of Senior Secured Promissory Note to be exchanged pursuant to that certain Note Purchase Agreement, dated as of December 11, 2009(3)
10.24	Form of Stock Purchase Warrant issued pursuant to that certain Note Purchase Agreement, dated as of December 11, 2009(3)

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Number	Description
10.25	Agreement between Eli Lilly and Company and the Company, dated as of January 28, 2010 (amending Agreement between the parties, dated as of September 15, 2009)(3)
10.26	Agreement between Shionogi & Co., Ltd. and the Company, dated as of February 24, 2010 (amending the Agreement between the parties, dated as of September 7, 2009)(8)
10.27	Amendment No. 3 to Stock Purchase Agreement and Escrow Agreement by and among the Company and the other persons and entities party thereto, dated as of February 24, 2010(8)
10.28	Amendment No. 1 to Note Purchase Agreement by and between the Company and the other persons and entities party thereto, dated as of February 24, 2010(8)
# 10.29	2010 Employee Stock Purchase Plan(9)
# 10.30	Employment Agreement by and between the Company and James Pennington, effective as of May 1, 2010(10)
# 10.32	Form of Non-Qualified Stock Option Agreement for Company Employees Under the Anthera Pharmaceuticals, Inc. 2010 Stock Option and Incentive Plan(11)
# 10.33	Form of Non-Qualified Stock Option Agreement for Non-Employee Directors Under the Anthera Pharmaceuticals, Inc. 2010 Stock Option and Incentive Plan(11)
# 10.34	Form of Incentive Stock Option Agreement Under the Anthera Pharmaceuticals, Inc. 2010 Stock Option and Incentive Plan(11)
# 10.35	Form of Restricted Stock Award Agreement Under the Anthera Pharmaceuticals, Inc. 2010 Stock Option and Incentive Plan(11)
# 10.36	Restricted Stock Unit Award Agreement Under the Anthera Pharmaceuticals, Inc. 2010 Stock Option and Incentive Plan(12)
10.37	Form of Securities Purchase Agreement, among the Company and the purchasers thereto, dated September 20, 2010(13)
10.38	Form of Registration Rights Agreement, between the Company and the Holders thereto, dated September 20, 2010(14)
10.39	Form of Warrant sold pursuant to that Securities Purchase Agreement, among the Company and the purchasers thereto, dated September 20, 2010(15)
10.40	First Addendum to Sublease by and between the Company and Millipore Corporation, as successor in interest to Guava Technologies, dated as of September 24, 2010(16)
10.41	Second Addendum to Sublease by and between the Company and Millipore Corporation, as a successor in interest to Guava Technologies, dated as of January 12, 2011.
10.42	Amendment No. 1 to 2010 Employee Stock Purchase Plan
14.1	Code of Ethics
21.1	Subsidiary of Anthera Pharmaceuticals, Inc.(4)
23.1	Consent of Deloitte & Touche LLP, independent registered public accounting firm
24.1	Power of Attorney (included on signature page hereto)
31.1	Certification of Principal Executive Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended.
31.2	Certification of Principal Financial Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended.
32.1	Certification of Principal Executive Officer pursuant to Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Principal Financial Officer pursuant to Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. Section 1350, as adopted pursuant Section 906 of the Sarbanes-Oxley Act of 2002.

+ Certain provisions of this Exhibit have been omitted pursuant to a request for confidential treatment

# Indicates management contract or compensatory plan, contract or agreement

(1) Filed as Exhibit 3.6 to the registrant s Amendment No. 4 to Registration Statement on Form S-1 (File No. 333-161930), filed February 3, 2010 and incorporated herein by reference.

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(2) Filed as Exhibit 3.7 to the registrant s Amendment No. 4 to Registration Statement on Form S-1 (File No. 333-161930), filed February 3, 2010 and incorporated herein by reference.

(3) Filed as the same numbered exhibit to the registrant s Amendment No. 3 to Registration Statement on Form S-1 (File No. 333-161930), filed January 29, 2010 and incorporated herein by reference.

(4) Filed as the same numbered exhibit to the registrant s Registration Statement on Form S-1 (File No. 333-161930), filed September 15, 2009 and incorporated herein by reference.

(5) Filed as Appendix A to the registrant s Definitive Proxy Statement on Schedule 14A filed June 8, 2010 and incorporated herein by reference.

(6) Filed as the same numbered exhibit to the registrant s Amendment No. 1 to Registration Statement on Form S-1 (File No. 333-161930), filed October 19, 2009 and incorporated herein by reference.

(7) Filed as the same numbered exhibit to the registrant s Amendment No. 2 to Registration Statement on Form S-1 (File No. 333-161930), filed November 16, 2009 and incorporated herein by reference.

(8) Filed as the same numbered exhibit to the registrant s Post-Effective Amendment No. 1 to Registration Statement on Form S-1 (File No. 333-161930), filed February 26, 2010 and incorporated herein by reference.

(9) Filed as Appendix B to the registrant s Definitive Proxy Statement on Schedule 14A filed June 8, 2010 and incorporated herein by reference.

(10) Filed as Exhibit 10.1 to the registrant s Current Report on Form 8-K filed June 4, 2010 and incorporated herein by reference

(11) Filed as Exhibit 10.2 to the registrant s Amendment No. 4 to Registration Statement on Form S-1 (File No. 333-161930), filed February 3, 2010 and incorporated herein by reference.

(12) Filed as Exhibit 10.1 to the registrant s Quarterly Report on Form 10-Q filed May 14, 2010 and incorporated herein by reference.

(13) Filed as Exhibit 10.1 to the registrant s Current Report on Form 8-K filed September 22, 2010 and incorporated herein by reference.

(14) Filed as Exhibit 10.2 to the registrant s Current Report on Form 8-K filed September 22, 2010 and incorporated herein by reference.

(15) Filed as Exhibit 4.1 to the registrant s Current Report on Form 8-K filed September 22, 2010 and incorporated herein by reference.

(16) Filed as the same numbered exhibit to the registrant s Registration Statement on Form S-1 (File No. 333-170099), filed October 22, 2010 and incorporated herein by reference.