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**Notice of 2010 Annual Meeting and  
Proxy Statement  
2009 Annual Report**

Dear Stockholders,

Last year was an outstanding year for Anthera. We successfully completed our phase 2 FRANCIS study with varespladib in patients with cardiovascular disease, advanced our anti-BAFF peptibody program towards phase 2 studies for patients suffering from Lupus, and completed the phase 2a IMPACTS study in sickle cell patients at risk of developing a severe lung complication. All of these programs represent innovative treatment approaches to improve patient outcomes and reduce the financial burden to the healthcare system. Taking on the challenge of developing novel therapeutics has never been easy and while the pharmaceutical industry as a whole struggles with an innovation "dry spell", we continue to focus our efforts on providing highly innovative treatments for patients in need.

Varespladib, our potent inhibitor of secretory phospholipase A2 (sPLA<sub>2</sub>) that we licensed from Eli Lilly and Company and Shionogi & Co., Ltd. in 2006, represents a new class of anti-inflammatory agents capable of interrupting the cascade of potentially damaging inflammation following a heart attack, while at the same time augmenting improvements in cholesterol when used in combination with Lipitor® therapy. In May of 2009, we reported data from our FRANCIS (**F**ewer **R**ecurrent **A**cute coronary events with **N**ear-term **C**ardiovascular **I**nflammation **S**uppression) study indicating that varespladib therapy, when given once daily with 80mg of Lipitor in heart attack patients, was associated with rapid and statistically significant reductions in sPLA<sub>2</sub>, C reactive protein, and cholesterol—all independent prognostic factors associated with an elevated risk of a future heart attack. Additional supportive data from the FRANCIS study included:

- Effects on biomarkers through 16 weeks and out as long as 24 weeks;
- Promising treatment effects on other markers of acute inflammation such as interleukin-6 (IL-6), which is also associated with increases in residual risk in cardiovascular patients;
- In the patients with diabetes who have higher levels of inflammation, the effects of varespladib were even more pronounced;
- No adverse effects on blood pressure, good cholesterol, or cardiac electrophysiology; and
- An appropriate safety profile.

In addition to the FRANCIS study, in mid 2009, a small investigational study (SPIDER-PCI, **s**PLA<sub>2</sub> **I**nhibition to **D**ecrease **E**nzyme **R**elease after **P**ercutaneous **C**oronary **I**ntervention) conducted at the University Health Network Hospital in Toronto, Ontario, Canada explored the hypothesized link between increased levels of sPLA<sub>2</sub> and biomarkers heart muscle damage (CK-MB and Troponin I) in patients undergoing an elective percutaneous coronary intervention (PCI). While the primary endpoint was not met (no effect on CK-MB or Troponin I levels), data from the study demonstrated a pronounced reduction of sPLA<sub>2</sub>, and CRP within 3 days of PCI and an appropriate safety profile.

Based on the results of these studies, in late 2009, we began discussions with the US Food and Drug Administration (FDA) regarding a unique approach to treating high-risk cardiovascular patients. Data from FRANCIS, SPIDER and other trials in high-risk cardiovascular patients indicated a potential benefit from early and intensive reductions in inflammation and bad cholesterol. It is apparent that amplified inflammation associated with a heart attack is most pronounced immediately following the event and slowly returns to "normal" within 16 weeks after the initial episode with standard therapies. The VISTA-16 (**V**ascular **I**nflammation **S**uppression to **T**reat **A**cute Coronary Syndrome—**16** weeks) phase 3 study represents an innovative, short-term, therapeutic approach that maximizes the potential benefits of rapid (within 96 hours) resolution of inflammation and lowering high cholesterol following an ACS. We are hopeful this innovative anti-inflammatory approach will create a new treatment paradigm and prove that targeted, short-term therapy during high-risk periods will improve patient outcomes, reduce financial burden to the healthcare system and minimize any risks associated with chronic therapy.

We are fortunate to have worked with Amgen Inc. and leading experts in lupus to acquire worldwide rights to A-623 in 2007. This large molecule peptibody prevents the maturation of

human B cells by inhibiting a target known as B Cell Activating Factor (BAFF). Abnormal elevations in B cells have been associated with a number of auto-immune diseases including rheumatoid arthritis. In late 2009, Human Genome Sciences (HGSI) demonstrated in multiple phase 3 studies that patients with Systemic Lupus Erythematosus (SLE) benefited from the administration of a BAFF inhibitor. HGSI's product could represent the first breakthrough therapy for the treatment of this debilitating disease in nearly 50 years. Given the possible differentiating advantages of A-623 versus the HGSI product, in 2009 with Amgen's assistance, we accelerated our efforts to begin phase 2 studies with A-623 in SLE patients. Possible advantages for A-623 include:

- Demonstrated inhibition of multiple forms of BAFF including soluble BAFF and BAFF expressed on the surface of B cells;
- Convenient subcutaneous dosing; and
- A low cost bacterial fermentation process for manufacturing that can be easily sourced globally.

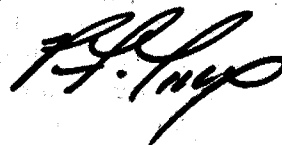
The opportunity for A-623 to provide a convenient and differentiated therapy to this very needy patient population is inspiring to all of us.

Our final product, A-001, completed an initial phase 2 study in hospitalized, sickle cell patients who have a genetic disorder that causes normal red blood cells to become deformed into a "sickle" shape. Complications of this "sickling" trigger a systemic inflammatory response that can lead to a serious lung injury known as Acute Chest Syndrome. The A-001 IMPACTS study (Investigation of the Modulation of Phospholipase in Acute Chest Syndrome) explored the possibility of stopping the inflammatory response due to elevations in sPLA<sub>2</sub> and consequently preventing acute chest syndrome. While IMPACTS was only a small phase 2 study, sPLA<sub>2</sub> levels were dramatically and statistically reduced following therapy. The data also demonstrated encouraging trends in preventing lung injury in patients where sPLA<sub>2</sub> levels were lowest post-therapy. Our discussions with the FDA provided a clear next step and we hope to opportunistically advance this program in the future.

In the first quarter of 2010, we completed several financings, including our initial public offering, which raised more than \$60 million overall. The additional capital will provide us with the required flexibility to advance these programs towards registration.

I expect 2010 will be another exciting year and I look forward to keeping you apprised of our progress. Finally, I'd like to take the opportunity to thank my colleagues at Anthera whose dedication over the past five years has never wavered. I am inspired daily by their ability to look beyond the status quo and develop new ways to address the challenges of developing novel therapeutics for seriously ill patients. I consider it a privilege to be a part of this group and we are fortunate to have their expertise guiding these exciting programs. To each of them—Thank you.

For the Board of Directors,



Paul F. Truex  
President & Chief Executive Officer



25801 Industrial Boulevard, Suite B  
Hayward, California 94545

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## NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

July 9, 2010

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The Annual Meeting of Stockholders of Anthera Pharmaceuticals, Inc. will be held on Friday, July 9, 2010 at 11:00 a.m. Pacific Daylight Time, at the offices of Goodwin Procter LLP, 135 Commonwealth Drive, Menlo Park, California, 94025, for the following purposes:

1. To elect two Class I directors, as nominated by the Board of Directors, to hold office until the 2013 Annual Meeting of Stockholders or until their successors are duly elected and qualified;
2. To approve the Company's Amended and Restated 2010 Stock Option and Incentive Plan, which amends the Company's existing plan to increase the number of shares authorized for issuance thereunder by 200,000 shares;
3. To approve the Company's 2010 Employee Stock Purchase Plan;
4. To ratify the appointment of Deloitte & Touche LLP as the independent registered public accounting firm of the Company for its fiscal year ending December 31, 2010; and
5. To transact such other business as may properly come before the meeting or any adjournment or postponement thereof.

Proposal 1 relates solely to the election of two Class I directors nominated by the Board of Directors and does not include any other matters relating to the election of directors, including without limitation, the election of directors nominated by any stockholder of the Company.

The Board of Directors has fixed the close of business on May 28, 2010 as the record date for the determination of stockholders entitled to notice of, and to vote at, the Annual Meeting of Stockholders, or at any adjournments of the Annual Meeting of Stockholders.

In order to ensure your representation at the Annual Meeting of Stockholders, you are requested to submit your proxy over the Internet, by telephone or by signing and dating the enclosed proxy as promptly as possible and returning it in the enclosed envelope (to which no postage need be affixed if mailed in the United States). If you attend the Annual Meeting of Stockholders and file with the Secretary of the Company an instrument revoking your proxy or a duly executed proxy bearing a later date, your proxy will not be used.

All stockholders are cordially invited to attend the Annual Meeting of Stockholders.

By Order of the Board of Directors  
Anthera Pharmaceuticals, Inc.

A handwritten signature in black ink, appearing to read "A. Bugdanowitz", written over a horizontal line.

Bradley A. Bugdanowitz  
*Secretary*

Hayward, California  
June 7, 2010

**Your vote is important, whether or not you expect to attend the Annual Meeting of Stockholders. You are urged to vote either via the Internet or telephone, or to mark, sign and date and promptly return the proxy in the stamped return envelope provided with such materials. Voting promptly will help avoid the additional expense of further solicitation to assure a quorum at the meeting.**



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# **ANTHERA PHARMACEUTICALS, INC.**

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## **PROXY STATEMENT FOR THE ANNUAL MEETING OF STOCKHOLDERS JULY 9, 2010**

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### **INFORMATION CONCERNING SOLICITATION AND VOTING**

#### **General**

This proxy statement is furnished in connection with the solicitation of proxies for use prior to or at the Annual Meeting of Stockholders (the "Annual Meeting") of Anthera Pharmaceuticals, Inc. (the "Company"), a Delaware corporation, to be held at 11:00 a.m. local time on Friday, July 9, 2010 and at any adjournments or postponements thereof for the following purposes:

- To elect two Class I directors, as nominated by the Board of Directors, to hold office until the 2013 Annual Meeting of Stockholders or until their successors are duly elected and qualified;
- To approve the Company's Amended and Restated 2010 Stock Option and Incentive Plan, which amends the Company's existing plan to increase the number of shares authorized for issuance thereunder by 200,000 shares;
- To approve the Company's 2010 Employee Stock Purchase Plan;
- To ratify the appointment of Deloitte & Touche LLP as the independent registered public accounting firm of the Company for its fiscal year ending December 31, 2010; and
- To transact such other business as may properly come before the meeting or any adjournment or postponement thereof.

The Annual Meeting will be held at the offices of Goodwin Procter LLP, 135 Commonwealth Drive, Menlo Park, California 94025. The proxy statement and accompanying form of proxy will be mailed to stockholders on or about June 11, 2010.

#### **Important Notice Regarding the Availability of Proxy Materials for the Stockholder Meeting to be Held on July 9, 2010**

**This proxy statement and the Company's 2009 Annual Report are available electronically at [www.proxyvote.com](http://www.proxyvote.com).**

#### **Solicitation**

This solicitation is made on behalf of the Board of Directors. We will bear the costs of preparing, mailing, online processing and other costs of the proxy solicitation made by our Board of Directors. Certain of our officers and employees may solicit the submission of proxies authorizing the voting of shares in accordance with the Board of Directors' recommendations. Such solicitations may be made by telephone, facsimile transmission or personal solicitation. No additional compensation will be paid to such officers, directors or regular employees for such services. We will reimburse banks, brokerage firms and other custodians, nominees and fiduciaries for reasonable out-of-pocket expenses incurred by them in sending proxy material to stockholders.

**Voting Rights and Outstanding Shares**

Only holders of record of our common stock as of the close of business on May 28, 2010 are entitled to receive notice of, and to vote at, the Annual Meeting. Each holder of common stock shall be entitled to one vote for each share held on all matters to be voted upon at the Annual Meeting. At the close of business on May 28, 2010, there were 22,312,870 shares of common stock issued and outstanding, which were held by approximately 275 holders of record.

A quorum of stockholders is necessary to take action at the Annual Meeting. Stockholders representing a majority of the outstanding shares of our common stock (present in person or represented by proxy) will constitute a quorum. We will appoint election inspectors for the meeting to determine whether or not a quorum is present and to tabulate votes cast by proxy or in person at the Annual Meeting. Abstentions, withheld votes and broker non-votes (which occur when a broker, bank or other nominee holding shares for a beneficial owner does not vote on a particular matter because such broker, bank or other nominee does not have discretionary authority to vote on that matter and has not received voting instructions from the beneficial owner) are counted as present for purposes of determining the presence of a quorum for the transaction of business at the Annual Meeting.

**Votes Required for Each Proposal**

To elect our directors and approve the other proposals being considered at the Annual Meeting, the voting requirements are as follows:

<u>Proposal</u>	<u>Vote Required</u>	<u>Discretionary Voting Permitted?</u>
Election of Directors .....	Plurality	No
Approval of Amended and Restated 2010 Stock Option and Incentive Plan .....	Majority	No
Approval of 2010 Employee Stock Purchase Plan .....	Majority	No
Ratification of Deloitte & Touche LLP .....	Majority	Yes

“Discretionary Voting Permitted” means that brokers will have discretionary voting authority with respect to shares held in street name for their clients, even if the broker does not receive voting instructions from their client.

“Majority” means a majority of the votes properly cast for and against such matter.

“Plurality” means a plurality of the votes properly cast on the election of directors.

The vote required and method of calculation for the proposals to be considered at the Annual Meeting are as follows:

*Proposal One — Election of Directors.* If a quorum is present, the two director nominees receiving the highest number of votes, in person or by proxy, will be elected as directors. You may vote “FOR” both nominees, “WITHHOLD” for both nominees or “WITHHOLD” for one nominee by specifying the name of such nominee on your proxy card. Withheld votes and broker non-votes will have no effect on the outcome of the election of directors.

*All Other Proposals — Approval of the Amended and Restated 2010 Stock Option and Incentive Plan, Approval of the 2010 Employee Stock Purchase Plan and Ratification of Deloitte & Touche LLP as independent registered public accountants.* Approval of all proposals (other than the election of directors) requires the affirmative vote of a majority of the votes properly cast for and against such matter. You may vote “FOR,” “AGAINST” or “ABSTAIN” from voting on these proposals. If you abstain from voting on any of these matters, your shares will not be counted as “votes cast” with respect to such matter, and the abstention will have no effect on the proposal. Broker non-votes will not be counted as “votes cast” and will therefore have no effect on the proposals.

We request that you vote your shares by proxy following the methods as instructed by the notice: over the Internet, by telephone or by mail. If you choose to vote by mail, your shares will be voted in accordance with

your voting instructions if the proxy card is received prior to or at the meeting. If you sign and return your proxy card but do not give voting instructions, your shares will be voted FOR (1) the election of the Company's nominees as directors; (2) the approval of the Amended and Restated 2010 Stock Option and Incentive Plan; (3) the approval of the 2010 Employee Stock Purchase Plan; (4) the ratification of the appointment of Deloitte & Touche LLP as the independent registered public accounting firm for the Company for the fiscal year ending December 31, 2010; and (5) as the proxy holders deem advisable, in their discretion, on other matters that may properly come before the Annual Meeting.

### **Voting by Proxy Over the Internet or by Telephone**

Stockholders whose shares are registered in their own names may vote by proxy by mail, over the Internet or by telephone. Instructions for voting by proxy over the Internet or by telephone are set forth on the notice of proxy materials. The Internet and telephone voting facilities will close at 11:59 p.m. Eastern Time on Thursday, July 8, 2010. The notice will also provide instructions on how you can elect to receive future proxy materials electronically or in printed form by mail. If you choose to receive future proxy materials electronically, you will receive an email next year with instructions containing a link to the proxy materials and a link to the proxy voting site. Your election to receive proxy materials electronically or in printed form by mail will remain in effect until you terminate such election.

If your shares are held in street name, the voting instruction form sent to you by your broker, bank or other nominee should indicate whether the institution has a process for beneficial holders to provide voting instructions over the Internet or by telephone. A number of banks and brokerage firms participate in a program that also permits stockholders whose shares are held in street name to direct their vote over the Internet or by telephone. If your bank or brokerage firm gives you this opportunity, the voting instructions from the bank or brokerage firm that accompany this proxy statement will tell you how to use the Internet or telephone to direct the vote of shares held in your account. If your voting instruction form does not include Internet or telephone information, please complete and return the voting instruction form in the self-addressed, postage-paid envelope provided by your broker. Stockholders who vote by proxy over the Internet or by telephone need not return a proxy card or voting instruction form by mail, but may incur costs, such as usage charges, from telephone companies or Internet service providers.

### **Revocability of Proxies**

Any proxy may be revoked at any time before it is exercised by filing an instrument revoking it with the Company's Secretary or by submitting a duly executed proxy bearing a later date prior to the time of the Annual Meeting. Stockholders who have voted by proxy over the Internet or by telephone or have executed and returned a proxy and who then attend the Annual Meeting and desire to vote in person are requested to notify the Secretary in writing prior to the time of the Annual Meeting. We request that all such written notices of revocation to the Company be addressed to Bradley A. Bugdanowitz, Secretary, c/o Anthera Pharmaceuticals, Inc., at the address of our principal executive offices at 25801 Industrial Boulevard, Suite B, Hayward, California 94545. Our telephone number is (510) 856-5600. Stockholders may also revoke their proxy by entering a new vote over the Internet or by telephone.

### **Stockholder Proposals to be Presented at the Next Annual Meeting**

Any stockholder who meets the requirements of the proxy rules under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), may submit proposals to the Board of Directors to be presented at the 2011 annual meeting. Such proposals must comply with the requirements of Rule 14a-8 under the Exchange Act and be submitted in writing by notice delivered or mailed by first-class United States mail, postage prepaid, to our Secretary at our principal executive offices at the address set forth above no later than February 11, 2011 in order to be considered for inclusion in the proxy materials to be disseminated by the Board of Directors for such annual meeting.

Our Amended and Restated Bylaws also provide for separate notice procedures to recommend a person for nomination as a director or to propose business to be considered by stockholders at a meeting. To be considered

timely under these provisions, the stockholder's notice must be received by our Secretary at our principal executive offices at the address set forth above no earlier than March 11, 2011 and no later than April 10, 2011. Our Amended and Restated Bylaws also specify requirements as to the form and content of a stockholder's notice.

The Board of Directors, a designated committee thereof or the chairman of the meeting may refuse to acknowledge the introduction of any stockholder proposal if it is not made in compliance with the applicable notice provisions.

**PROPOSAL 1**  
**ELECTION OF DIRECTORS**

**General**

Our certificate of incorporation provides for a Board of Directors that is divided into three classes. The term for each class is three years, staggered over time. This year, the term of the directors in Class I, Messrs. Santel and Thompson, expires. Accordingly, two directors will be elected at the Annual Meeting. Our Board of Directors is currently comprised of eight members. If both of the nominees are elected at the Annual Meeting of Stockholders, the composition of our Board will be as follows: Class I — Messrs. Santel and Thompson; Class II — Ms. Bianchi and Drs. Healy and Leheny; and Class III — Dr. Henney and Messrs. Spiegelman and Truex.

In the absence of instructions to the contrary, the persons named as proxy holders in the accompanying proxy intend to vote in favor of the election of the two nominees designated below to serve until the 2013 Annual Meeting of Stockholders and until their respective successors shall have been duly elected and qualified. Both of the nominees are currently directors. The Board of Directors expects that each of the nominees will be available to serve as a director, but if any such nominee should become unavailable or unwilling to stand for election, it is intended that the shares represented by the proxy will be voted for such substitute nominee as may be designated by the Board of Directors. The biographies of our directors and their ages as of June 1, 2010 are set forth below.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Paul F. Truex . . . . .	41	Chief Executive Officer, President and Director
Christopher S. Henney, Ph.D. . . . .	69	Chairman of the Board of Directors
Annette Bianchi . . . . .	51	Director
James I. Healy, M.D., Ph.D. . . . .	45	Director
A. Rachel Leheny, Ph.D. . . . .	47	Director
Donald J. Santel . . . . .	49	Director
Daniel K. Spiegelman . . . . .	51	Director
David E. Thompson . . . . .	63	Director

**Nominees for Director**

*Class I:*

Each of the persons listed below is nominated for election to Class I of the Board of Directors to serve a three-year term ending at the 2013 annual meeting of stockholders and until his successor is elected and qualified. **The Board of Directors recommends that you vote FOR each of the following nominees.**

*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.

Based on Mr. Santel's executive experience and service on other boards of directors in the biotechnology and pharmaceutical industries, the Board of Directors believes Mr. Santel has the appropriate set of skills to serve as a member of our Board.

*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.

The Board of Directors believes Mr. Thompson is suited to serve on our Board due to his substantial investing experience and prior experience working in the pharmaceutical industry.

## **Continuing Directors**

### ***Class II: Currently Serving Until the 2011 Annual Meeting***

*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.

The Board of Directors has determined that Ms. Bianchi's substantial experience regarding investing in companies in the health care industry and her education in biomedical engineering give her the appropriate set of skills to serve as a member of our Board.

*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 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.

Based on Dr. Healy's extensive experience as a director of numerous biopharmaceutical companies and his medical training, the Board of Directors has determined that Dr. Healy possesses the necessary attributes to serve on our Board.

*A. Rachel Leheny, Ph.D.* Dr. Leheny has served as a member of our Board of Directors since August 2008. Dr. Leheny is (i) a Managing Director of Caxton Advantage Venture Partners, L.P., which is the General Partner of Caxton Advantage Life Sciences Fund, L.P., a life-sciences venture capital fund that she co-founded in 2006 and (ii) a member of Advantage Life Sciences Partners LLC, the Managing General Partner of Caxton Advantage Venture Partners, L.P. Prior to that, from April 2000 to June 2002, she was head of the biotechnology research team at Lehman Brothers. Before Lehman, from April 1998 to April 2000, Dr. Leheny headed the biotechnology research team at UBS Warburg and before that, from April 1993 to April 1998, worked at Hambrecht & Quist, most recently as Managing Director and Senior Analyst. Dr. Leheny holds an A.B. in chemistry from Harvard and a Ph.D. from Columbia University. She did post-doctoral work at the University of California at Berkeley, where she was a National Institutes of Health fellow and lecturer.

Due to Dr. Leheny's vast experience with respect to the life sciences industry, both from investment and educational standpoints, the Board of Directors believes that Dr. Leheny has skills enabling her to contribute meaningfully to our Board and our Company.

***Class III: Currently Serving Until the 2012 Annual Meeting***

*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. and Eiger Biopharmaceuticals, Inc.

The Board of Directors has concluded that Mr. Truex should serve on our Board based on his deep knowledge of our Company gained from his positions as President and Chief Executive Officer, as well as his substantial experience in the pharmaceutical industry.

*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.

The Board of Directors has determined that Dr. Henney is a valuable addition to our Board based upon his long history with the Company and his extensive experience in the biotechnology industry.

*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.

Due to Mr. Spiegelman's experience in serving as a director of multiple publicly-traded biopharmaceutical companies, as well as his prior employment at various pharmaceutical companies, our Board of Directors has concluded that Mr. Spiegelman possesses the necessary attributes to serve on our Board.

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

**Board of Directors' Role in Risk Management**

The Board of Directors has overall responsibility for the oversight of the Company's risk management process, which is designed to support the achievement of organizational objectives, including strategic objectives, to improve long-term organizational performance and enhance shareholder value. Risk management includes not only understanding company specific risks and the steps management implements to manage those risks, but also what level of risk is acceptable and appropriate for the Company. Management is responsible for establishing our

business strategy, identifying and assessing the related risks and implementing appropriate risk management practices. The Board of Directors reviews our business strategy and management's assessment of the related risk, and discusses with management the appropriate level of risk for the Company. For example, the Board of Directors meets with management at least quarterly to review, advise and direct management with respect to strategic business risks, litigation risks and risks related to the Company's acquisition strategy, among others. The Board also delegates oversight to Board committees to oversee selected elements of risk as set forth below.

The Board of Directors has delegated day-to-day responsibility for administering and interpreting the Company's Code of Business Conduct and Ethics to the Company's Chief Financial Officer as compliance officer.

As part of its oversight of the Company's financial reporting process and audits of the Company's financial statements, our Audit Committee is responsible for reviewing financial risk exposures, including monitoring the quality and integrity of the Company's financial statements, the effectiveness of internal controls over financial reporting, compliance with legal or regulatory requirements, the performance of the internal audit function and the performance and independence of the Company's independent registered public accounting firm, among other responsibilities as set forth in the Audit Committee Charter. The Audit Committee receives periodic internal controls and related assessments from the Company's finance department and an annual attestation report on internal control over financial reporting from the Company's independent registered public accounting firm. In addition, our Audit Committee ensures that the Company's business is conducted with the highest standards of ethical conduct in compliance with applicable laws and regulations by monitoring our Code of Business Conduct and Ethics Policy and our Employee Feedback Hotline, and the Audit Committee discusses other risk assessment and risk management policies of the Company periodically with 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.

Our Nominating and Corporate Governance Committee oversees governance-related risks by developing and recommending to the Board working with management to establish corporate governance guidelines applicable to the Company, making recommendations regarding director nominees and membership on Board committees and overseeing the annual evaluation of the Board and management.

### **Board of Directors and Committees of the Board**

During 2009, the Board of Directors held a total of 18 meetings. All directors attended at least 75% of the total number of Board meetings and meetings of Board committees on which the director served during the time he or she served on the Board or such committees.

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

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 listing standards. Furthermore, our Audit Committee meets the enhanced independence standards established by the Sarbanes-Oxley Act of 2002 and related rulemaking of the Securities and Exchange Commission (the "SEC") that apply to companies that have recently completed an initial public offering. 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. Healy. During 2009, the Audit Committee held one meeting.

*Compensation Committee.* The Compensation Committee annually reviews and approves our goals and objectives relevant to compensation of our Chief Executive Officer, evaluates our Chief Executive Officer in light of such goals and determines the compensation of our Chief Executive Officer. The Compensation Committee also reviews and approves the compensation of all of our other officers, oversees and administers our incentive-based compensation and equity plans and reviews and makes recommendations to our Board of Directors with respect to director compensation. The Compensation Committee also produces an annual report on executive compensation for inclusion in our proxy statement. Currently, the Compensation Committee is comprised of Mr. Thompson (Chair), Mr. Santel and Dr. Leheny. During 2009, the Compensation Committee held four meetings.

*Nominating and Corporate Governance Committee.* The Nominating and Corporate Governance Committee is responsible for developing and recommending to our Board of Directors individuals to be nominated as directors and committee members. This includes establishing procedures for identifying and evaluating director candidates (including nominees recommended by stockholders). The Nominating and Corporate Governance Committee is also responsible for developing and recommending to our Board of Directors corporate governance guidelines, as well as overseeing the evaluation of our Board of Directors, committees of the Board and management. Currently, the Nominating and Corporate Governance Committee is comprised of Dr. Henney (Chair), Ms. Bianchi and Mr. Thompson. During 2009, the Nominating and Corporate Governance Committee held one meeting.

## **Board Leadership**

The positions of Chairman of the Board and Chief Executive Officer are presently separated and have historically been separated at Anthera. Separating these positions allows our Chief Executive Officer to focus on our day-to-day business, while allowing the Chairman of the Board to lead the Board of Directors in its fundamental role of providing advice to and independent oversight of management. Our Board of Directors recognizes the time, effort, and energy that the Chief Executive Officer is required to devote to his position in the current business environment, as well as the commitment required to serve as our Chairman, particularly as the Board of Directors' oversight responsibilities continue to grow. Our Board of Directors also believes that this structure ensures a greater role for the independent directors in the oversight of our Company and active participation of the independent directors in setting agendas and establishing priorities and procedures for the work of our Board of Directors. Our Board of Directors believes its administration of its risk oversight function has not affected its leadership structure.

While our bylaws and corporate governance guidelines do not require that our Chairman and Chief Executive Officer positions be separate, our Board of Directors believes that having separate positions and having an independent outside director serve as Chairman is the appropriate leadership structure for us at this time and demonstrates our commitment to good corporate governance. Our separated Chairman and Chief Executive Officer positions are augmented by the independence of seven of our eight directors, and our three fully independent Board committees that provide appropriate oversight in the areas described above. At executive sessions of independent directors, these directors speak candidly on any matter of interest, without the Chief Executive Officer or other executives present. The independent directors met two times in 2009 without management present. We believe this structure provides consistent and effective oversight of our management and the Company.

## **Director Nominations**

The director qualifications developed to date focus on what our Board believes to be essential competencies to effectively serve on the Board of Directors. The Nominating and Corporate Governance Committee must reassess

such criteria annually and submit any proposed changes to the Board of Directors for approval. Presently, at a minimum, the Nominating and Corporate Governance Committee must be satisfied that each nominee it recommends has the highest personal and professional integrity, demonstrates exceptional ability and judgment and shall be most effective, in conjunction with the other nominees to the Board of Directors, in collectively serving the long-term interests of the stockholders.

In addition to those minimum qualifications, the Nominating and Corporate Governance Committee shall recommend that our Board of Directors select persons for nomination to help ensure that:

- a majority of our Board is “independent” in accordance with Nasdaq standards;
- each of the Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee be comprised entirely of independent directors; and
- at least one member of the Audit Committee shall have the experience, education and other qualifications necessary to qualify as an “audit committee financial expert” as defined by the rules of the SEC.

In addition to other standards the Nominating and Corporate Governance Committee may deem appropriate from time to time for the overall structure and compensation of the Board of Directors, the Nominating and Corporate Governance Committee may consider the following factors when recommending that our Board select persons for nomination:

- whether a nominee has direct experience in the pharmaceuticals industry or in the markets in which the Company operates;
- whether the nominee, if elected, assists in achieving a mix of Board members that represents a diversity of background and experience.

Although the Nominating and Corporate Governance Committee may consider whether nominees assist in achieving a mix of Board members that represents a diversity of background and experience, which is not only limited to race, gender or national origin, we have no formal policy regarding board diversity.

The Nominating and Corporate Governance Committee adheres to the following process for identifying and evaluating nominees for the Board of Directors. First, it solicits recommendations for nominees from non-employee directors, our Chief Executive Officer, other executive officers, third-party search firms or any other source it deems appropriate. The Nominating and Corporate Governance Committee then reviews and evaluates the qualifications of proposed nominees and conducts inquiries it deems appropriate; all proposed nominees are evaluated in the same manner, regardless of who initially recommended such nominee. In reviewing and evaluating proposed nominees, the Nominating and Corporate Governance Committee may consider, in addition to the minimum qualifications and other criteria for Board membership approved by our Board from time to time, all facts and circumstances that it deems appropriate or advisable, including, among other things, the skills of the proposed nominee, his or her depth and breadth of business experience or other background characteristics, his or her independence and the needs of the Board.

If the Nominating and Corporate Governance Committee decides to retain a third-party search firm to identify proposed nominees, it has sole authority to retain and terminate such firm and to approve any such firm’s fees and other retention terms.

Each of the nominees for election as director at the 2010 Annual Meeting is recommended by the Nominating and Corporate Governance Committee and each nominee is presently a director and stands for re-election by the stockholders. From time to time, the Company may pay fees to third-party search firms to assist in identifying and evaluating potential nominees, although no such fees have been paid in connection with nominations to be acted upon at the 2010 Annual Meeting.

Pursuant to our bylaws, stockholders who wish to nominate persons for election to the Board of Directors at an annual meeting must be a stockholder of record at the time of giving the notice, entitled to vote at the meeting, present (in person or by proxy) at the meeting and must comply with the notice procedures in our bylaws. A

stockholder's notice of nomination to be made at an annual meeting must be delivered to our principal executive offices not less than 90 days nor more than 120 days before the anniversary date of the immediately preceding annual meeting. However, if an annual meeting is more than 30 days before or more than 60 days after such anniversary date, the notice must be delivered no later than the 90th day prior to such annual meeting or, if later, the 10th day following the day on which the first public announcement of the date of such annual meeting was made. Notwithstanding the foregoing, with respect to the 2010 Annual Meeting, a stockholder's notice shall be timely if delivered to our principal executive offices not later than the close of business on June 17, 2010. A stockholder's notice of nomination may not be made at a special meeting unless such special meeting is held in lieu of an annual meeting. The stockholder's notice must include the following information for the person making the nomination:

- name and address;
- the class and number of shares of the Company owned beneficially or of record;
- disclosure regarding any derivative, swap or other transactions which give the nominating person economic risk similar to ownership of shares of the Company or provide the opportunity to profit from an increase in the price of value of shares of the Company;
- any proxy, agreement, arrangement, understanding or relationship that confers a right to vote any shares of the Company;
- any agreement, arrangement, understanding or relationship engaged in for the purpose of acquiring, holding, disposing or voting of any shares of any class or series of capital stock of the Company;
- any rights to dividends on the shares that are separate from the underlying shares;
- any performance related fees that the nominating person is entitled to based on any increase or decrease in the value of any shares of the Company;
- a description of all agreements, arrangements or understandings by and between the proposing stockholder and another person relating to the proposed business (including an identification of each party to such agreement, arrangement or understanding and the names, addresses and class and number of shares owned beneficially or of record of other stockholders known by the proposing stockholder support such proposed business;
- a statement whether or not the proposing stockholder will deliver a proxy statement and form of proxy to holders of, in the case of a business proposal, at least the percentage of voting power of all shares of capital stock required to approve the proposal or, in the case of director nominations, at least the percentage of voting power of all of the shares of capital stock reasonably believed by the proposing stockholder to be sufficient to elect the nominee; and
- any other information relating to the nominating person that would be required to be disclosed in a proxy statement filed with the SEC.

With respect to proposed director nominees, the stockholder's notice must include all information required to be disclosed in a proxy statement in connection with a contested election of directors or otherwise required pursuant to Regulation 14A under the Exchange Act (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected).

For matters other than the election of directors, the stockholder's notice must also include a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting and any material interest in such business of the stockholder(s) proposing the business.

The stockholder's notice must be updated and supplemented, if necessary, so that the information required to be provided in the notice is true and correct as of the record date for the meeting and as of the date that is ten business days prior to the meeting.

The Board of Directors, a designated committee thereof or the chairman of the meeting will determine if the procedures in the bylaws have been followed, and if not, declare that the proposal or nomination be disregarded. The nominee must be willing to provide any other information reasonably requested by the Nominating and Corporate Governance Committee in connection with its evaluation of the nominee's independence.

### **Stockholder Communications with the Board of Directors**

Stockholders may send correspondence to the Board of Directors c/o the Secretary at our principal executive offices at the address set forth above. The Secretary will review all correspondence addressed to the Board, or any individual Board member, for any inappropriate correspondence and correspondence more suitably directed to management. However, the Secretary will summarize all correspondence not forwarded to the Board and make the correspondence available to the Board for its review at the Board's request. The Secretary will forward stockholder communications to the Board prior to the next regularly scheduled meeting of the Board of Directors following the receipt of the communication.

### **Director Attendance at Annual Meetings**

Directors are encouraged to attend the Annual Meeting of Stockholders. We did not hold an annual stockholder meeting for our fiscal year ended December 31, 2009.

### **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.

### **Director Compensation**

In June 2008, the Board of Directors, upon the recommendation of our Compensation Committee, adopted a formal compensation program for the Chairman of our Board of Directors and our independent directors who were not affiliated with any of our investors. Pursuant to this program, the chairman of our Board of Directors, Dr. Henney, received a \$20,000 annual retainer fee plus an additional \$60,000 as consideration for his services as Chairman. Pursuant to this program, two of our directors, Mr. Santel and Mr. Thompson, received a \$20,000 annual retainer fee, as well as \$2,000 for each board meeting attended in person (\$1,000 for meetings attended by telephone conference).

Under the director compensation program effective prior to January 2010, each non-employee director initially received (i) a nonqualified stock option to purchase 14,602 shares of our common stock upon election and (ii) each year thereafter an additional nonqualified stock option to purchase 5,841 shares of our common stock. One quarter of the shares issuable pursuant to the initial nonqualified stock option vested upon the completion of one year of continuous service by such director following the date of commencement of the vesting of such option; the remaining three quarters of the shares issuable pursuant to each such option vested in equal monthly installments over a period of three years until the date that is the fourth anniversary of the date of the option grant. The shares issuable pursuant to the annual nonqualified stock option vested in equal monthly installments over a period of four years. All of these options have an exercise price equal to the fair market value of our common stock on the date of the grant. The option numbers set forth above take into account our 1-for-1.712 reverse stock split of our common stock effected on February 22, 2010.

In January 2010, the Board of Directors approved changes to the current director compensation program, which apply to all non-employee directors. Each non-employee director 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.

#### Director Compensation Table — 2009

The following table sets forth information with respect to the compensation earned by our non-employee directors during the fiscal year ended December 31, 2009.

<u>Name</u>	<u>Fees Earned or Paid in Cash (\$)</u>	<u>Option Awards \$(1)</u>	<u>Total (\$)</u>
Christopher S. Henney, Ph.D. (Chairman) .....	\$80,000	\$ 5,875(2)	\$85,875
Annette Bianchi .....	—	\$ 5,875(3)	\$ 5,875
James I. Healy, M.D., Ph.D. ....	—	\$ 5,875	\$ 5,875
A. Rachel Leheny, Ph.D. ....	—	\$14,688(4)	\$14,688
Donald J. Santel .....	\$35,000	\$ 5,875(5)	\$40,875
Daniel K. Spiegelman(6) .....	—	—	—
David E. Thompson .....	\$34,000	\$ 5,875(7)	\$39,875

(1) This column reflects the aggregate grant date fair value of equity awards granted in 2009 and calculated in accordance with FASB ASC 718, excluding the effect of estimated forfeitures. See Note 8 to our financial statements (for the years ended December 31, 2007, 2008 and 2009, included as part of our Registration Statement on Form S-1) for a discussion of the assumptions made in determining the valuation of option awards.

(2) Dr. Henney held 40,887 shares underlying stock options as of December 31, 2009.

(3) Ms. Bianchi held 20,443 shares underlying stock options as of December 31, 2009.

(4) Dr. Leheny held 14,602 shares underlying stock options as of December 31, 2009.

(5) Mr. Santel held 20,443 shares underlying stock options as of December 31, 2009.

(6) Mr. Spiegelman joined our Board of Directors on February 2, 2010.

(7) Mr. Thompson held 17,523 shares underlying stock options as of December 31, 2009.

#### Required Vote

The two nominees receiving the highest number of affirmative votes of all the votes properly cast shall be elected as directors to serve until the 2013 Annual Meeting of Stockholders or until their successors have been duly elected and qualified.

#### Recommendation of the Board of Directors

The Board of Directors recommends that the stockholders vote FOR the election of each of the nominees listed above.

## PROPOSAL 2

### APPROVAL OF AMENDED AND RESTATED 2010 STOCK OPTION AND INCENTIVE PLAN

#### Proposal

The Board of Directors believes that stock options and other stock-based incentive awards can play an important role in the success of the Company by encouraging and enabling the employees, officers, non-employee directors and other key persons of the Company and its subsidiaries upon whose judgment, initiative and efforts the Company largely depends for the successful conduct of its business to acquire a proprietary interest in the Company. The Board of Directors anticipates that providing such persons with a direct stake in the Company will assure a closer identification of the interests of such individuals with those of the Company and its stockholders, thereby stimulating their efforts on the Company's behalf and strengthening their desire to remain with the Company.

On May 20, 2010, the Board of Directors approved an Amended and Restated 2010 Stock Option and Incentive Plan (the "2010 Plan"), subject to stockholder approval, to increase 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 an additional 35,670 shares of common stock that were available under the 2005 Equity Incentive Plan (the "2005 Plan") as of May 20, 2010; no shares of common stock have been returned under the 2005 Plan following May 20, 2010. Options to purchase 25,000 shares of common stock under the 2010 Plan were granted to one of our directors in March 2010 in connection with joining our Board of Directors. Accordingly, the maximum number of shares available for awards as of May 28, 2010 is 444,314. This amendment and restatement was designed to enhance the flexibility of the Compensation Committee in granting stock options and other awards to our officers, employees, non-employee directors and other key persons and to ensure that the Company can continue to grant stock options and other awards to such persons at levels determined to be appropriate by the Compensation Committee. A copy of the 2010 Plan is attached as *Appendix A* to this Proxy Statement and is incorporated herein by reference.

Based solely on the closing price of our common stock as reported by the NASDAQ Global Market on May 28, 2010 and the maximum number of shares that would have been available for awards as of such date taking into account the proposed increase described herein, the maximum aggregate market value of the common stock that could potentially be issued under the 2010 Plan is approximately \$2.6 million. The shares we issue under the 2010 Plan will be authorized but unissued shares or shares that we reacquire. The shares of common stock underlying any awards that are forfeited, cancelled, held back upon exercise or settlement of an award to satisfy the exercise price or tax withholding, reacquired by the Company 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.

#### Qualified Performance-Based Compensation under Code Section 162(m)

To ensure that certain awards granted under the 2010 Plan to a "Covered Employee" (as defined in the Internal Revenue Code of 1986 (the "Code")) qualify as "performance-based compensation" under Section 162(m) of the Code, the 2010 Plan provides that the Compensation Committee may require that the vesting of such awards be conditioned on the satisfaction of performance criteria that may include any or all of the following: (1) achievement of key clinical milestones; (2) earnings before interest, taxes, depreciation and amortization; (3) net income (loss) (either before or after interest, taxes, depreciation and/or amortization); (4) changes in the market price of the stock; (5) economic value added; (6) sales or revenue; (7) acquisitions or strategic transactions; (8) operating income (loss); (9) cash flow (including, but not limited to, operating cash flow and free cash flow); (10) return on capital, assets, equity, or investment; (11) stockholder returns; (12) return on sales; (13) gross or net profit levels; (14) productivity; (15) expense; (16) margins; (17) operating efficiency; (18) customer satisfaction; (19) working capital; (20) earnings (loss) per share of common stock; (21) sales or market shares; and (22) number of customers, any of which may be measured either in absolute terms or as compared to any incremental increase or as compared to results of a peer group. The Compensation Committee will select the particular performance criteria within 90 days following the commencement of a performance cycle. Subject to adjustments for stock splits and similar events, the maximum award granted to any one individual that is intended to qualify as "performance-based compensation" under Section 162(m) of the Code will not exceed 116,822 shares of common stock for any performance cycle and options or stock appreciation rights with respect

to no more than 116,822 shares of common stock may be granted to any one individual during any calendar year period. If a performance-based award is payable in cash, it cannot exceed \$2 million for any performance cycle.

### **Summary of the 2010 Plan**

The following description of certain features of the 2010 Plan is intended to be a summary only. The summary is qualified in its entirety by the full text of the 2010 Plan that is attached hereto as *Appendix A*.

*Plan Administration.* The 2010 Plan is administered by the Compensation Committee. The Compensation Committee 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 Compensation Committee may delegate to our Chief Executive Officer the authority to grant stock options to employees who are not subject to the reporting and other provisions of Section 16 of the Exchange Act and not subject to Section 162(m) of the Code, subject to certain limitations and guidelines.

*Eligibility.* Persons eligible to participate in the 2010 Plan will be those full or part-time officers, employees, non-employee directors and other key persons (including consultants and prospective officers) of the Company and its subsidiaries as selected from time to time by the Compensation Committee in its discretion. Approximately 28 individuals are currently eligible to participate in the 2010 Plan, which includes 10 officers, 11 employees who are not officers, and 7 non-employee directors.

*Plan Limits.* Taking into account the proposed increase described herein, 433,644 shares are initially available for issuance under the 2010 Plan. Additionally, as of January 1, 2011 and each January 1 thereafter, the number of shares reserved and available for issuance under the 2010 Plan will automatically increase by 4% of the outstanding number of shares of common stock on the immediately preceding December 31. The maximum award of stock options or stock appreciation rights granted to any one individual will not exceed 116,822 shares of common stock (subject to adjustment for stock splits and similar events) for any calendar year period. If any award of restricted stock, restricted stock units or performance shares granted to an individual is intended to qualify as "performance-based compensation" under Section 162(m) of the Code, then the maximum award shall not exceed 116,822 shares of common stock (subject to adjustment for stock splits and similar events) to any one such individual in any performance cycle. If any cash-based award is intended to qualify as "performance-based compensation" under Section 162(m) of the Code, then the maximum award to be paid in cash in any performance cycle may not exceed \$2 million. In addition, no more than the lesser of (i) the number of shares reserved and available for issuance under the Plan or (ii) 1,460,280 shares will be issued in the form of incentive stock options.

*Stock Options.* The 2010 Plan permits the granting of (1) options to purchase common stock intended to qualify as incentive stock options under Section 422 of the Code and (2) options that do not so qualify. Options granted under the 2010 Plan will be non-qualified options if they fail to qualify as incentive options or exceed the annual limit on incentive stock options. Incentive stock options may only be granted to employees of the Company and its subsidiaries. Non-qualified options may be granted to any persons eligible to receive incentive options and to non-employee directors and key persons. The option exercise price of each option will be determined by the Compensation Committee but may not be less than 100% of the fair market value of the common stock on the date of grant. Fair market value for this purpose will be the last reported sale price of the shares of common stock on the NASDAQ on the date of grant. The exercise price of an option may be reduced after the date of the option grant.

The term of each option will be fixed by the Compensation Committee and may not exceed ten years from the date of grant. The Compensation Committee will determine at what time or times each option may be exercised. Options may be made exercisable in installments and the exercisability of options may be accelerated by the Compensation Committee. In general, unless otherwise permitted by the Compensation Committee, no option granted under the 2010 Plan is transferable by the optionee other than by will or by the laws of descent and distribution, and options may be exercised during the optionee's lifetime only by the optionee, or by the optionee's legal representative or guardian in the case of the optionee's incapacity.

Upon exercise of options, the option exercise price must be paid in full either in cash, by certified or bank check or other instrument acceptable to the Compensation Committee or by delivery (or attestation to the ownership) of shares of common stock that are beneficially owned by the optionee for at least six months or were purchased in the open market. Subject to applicable law, the exercise price may also be delivered to the Company by a broker pursuant to irrevocable instructions to the broker from the optionee. In addition, the Compensation Committee may permit non-qualified options to be exercised using a net exercise feature which reduces the number of shares issued to the optionee by the number of shares with a fair market value equal to the exercise price.

To qualify as incentive options, options must meet additional federal tax requirements, including a \$100,000 limit on the value of shares subject to incentive options that first become exercisable by a participant in any one calendar year.

*Stock Appreciation Rights.* The Compensation Committee may award stock appreciation rights subject to such conditions and restrictions as the Compensation Committee 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 is the fair market value of the common stock on the date of grant.

*Restricted Stock.* The Compensation Committee may award shares of common stock to participants subject to such conditions and restrictions as the Compensation Committee may determine. These conditions and restrictions may include the achievement of certain performance goals (as summarized above) and/or continued employment with us through a specified restricted period.

*Restricted Stock Units.* The 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 the Compensation Committee may determine. These conditions and restrictions may include the achievement of certain performance goals (as summarized above) and/or continued employment with the Company through a specified vesting period. In the Compensation Committee's sole discretion, it may permit a participant to make an advance election to receive a portion of his or her future cash compensation otherwise due in the form of a restricted stock unit award, subject to the participant's compliance with the procedures established by the Compensation Committee and requirements of Section 409A of the Code. During the deferral period, the deferred stock awards may be credited with dividend equivalent rights.

*Unrestricted Stock Awards.* The Compensation Committee 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.

*Cash-Based Awards.* The Compensation Committee may grant cash bonuses under the 2010 Plan to participants. The cash bonuses may be subject to the achievement of certain performance goals (as summarized above).

*Performance Share Awards.* The Compensation Committee may grant performance share awards to any participant which entitle the recipient to receive shares of common stock upon the achievement of certain performance goals (as summarized above) and such other conditions as the Compensation Committee shall determine.

*Dividend Equivalent Rights.* The Compensation Committee 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. Dividend equivalent rights may be granted as a component of another award (other than a stock option or stock appreciation right) or as a freestanding award. Dividend equivalent rights may be settled in cash, shares of common stock or a combination thereof, in a single installment or installments, as specified in the award.

*Change of Control Provisions.* The 2010 Plan provides that upon the effectiveness of a "sale event" as defined in the 2010 Plan, except as otherwise provided by the Compensation Committee in the award agreement, all stock options and stock appreciation rights will automatically terminate, unless the parties to the sale event agree



that such awards will be assumed or continued by the successor entity. In the event of such termination, participants holding options and stock appreciation rights will be permitted to exercise such options and stock appreciation rights prior to the sale event. In addition, in the case of a sale event in which the Company's stockholders will receive cash consideration, the Company 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.

*Adjustments for Stock Dividends, Stock Splits, Etc.* The 2010 Plan requires the Compensation Committee to make appropriate adjustments to the number of shares of common stock that are subject to the 2010 Plan, to certain limits in the 2010 Plan, and to any outstanding awards to reflect stock dividends, stock splits, extraordinary cash dividends and similar events.

*Tax Withholding.* Participants in the 2010 Plan are responsible for the payment of any federal, state or local taxes that the Company is required by law to withhold upon the exercise of options or stock appreciation rights or vesting of other awards. Subject to approval by the Compensation Committee, participants may elect to have the minimum tax withholding obligations satisfied by authorizing the Company to withhold shares of common stock to be issued pursuant to the exercise or vesting.

*Amendments and Termination.* The Board may at any time amend or discontinue the 2010 Plan and the Compensation Committee may at any time amend or cancel any outstanding award for the purpose of satisfying changes in the law or for any other lawful purpose. However, no such action may adversely affect any rights under any outstanding award without the holder's consent. To the extent required under the rules of the NASDAQ, any amendments that materially change the terms of the 2010 Plan will be subject to approval by our stockholders. However, the Compensation Committee is expressly permitted to reprice outstanding options and stock appreciation rights without obtaining stockholder approval. Amendments shall also be subject to approval by our stockholders if and to the extent determined by the Compensation Committee to be required by the Code to preserve the qualified status of incentive options or to ensure that compensation earned under the 2010 Plan qualifies as performance-based compensation under Section 162(m) of the Code.

*Effective Date of the 2010 Plan.* The Board adopted the 2010 Plan on May 20, 2010 and it will become effective upon being approved by our stockholders. Awards of incentive options may be granted under the 2010 Plan until the date that is 10 years from the date of Board approval. No other awards may be granted under the 2010 Plan after the date that is 10 years from the date of stockholder approval.

### **New Plan Benefits**

Because the grant of awards under the 2010 Plan is within the discretion of the Compensation Committee, the Company cannot determine the dollar value or number of shares of common stock that will in the future be received by or allocated to any participant in the 2010 Plan. Accordingly, in lieu of providing information regarding benefits that will be received under the 2010 Plan, the following table provides information concerning the benefits that were received by the following persons and groups during 2009: each named executive officer; all current executive

officers, as a group; all current directors who are not executive officers, as a group; and all employees who are not executive officers, as a group.

<u>Name and Position in 2009</u>	<u>Stock Options</u>	
	<u>Grant Date Fair Value(1)</u>	<u>Number (#)</u>
Paul F. Truex, President, Chief Executive Officer and Director . . . . .	\$ 88,125	87,616
Christopher P. Lowe, Chief Financial Officer and Vice President of Administration. . . . .	\$ 23,500	23,364
James E. Pennington, M.D., Executive Vice President and Chief Medical Officer . . . . .	\$ 29,375	29,205
Colin Hislop, M.D., Senior Vice President, Cardiovascular Products . . .	\$ 28,795	28,621
Debra Odink, Ph.D., Vice President, Pharmaceutical Research and Development . . . . .	\$ 29,375	29,205
Stephen Lau, Vice President, Corporate and Business Development . . .	\$ 16,162	16,062
All current executive officers, as a group . . . . .	\$215,332	214,073
All current directors who are not executive officers, as a group. . . . .	\$ 38,188	37,966
All current employees who are not executive officers, as a group . . . . .	\$137,825	136,965

(1) The grant date fair value of each equity award is computed in accordance with FASB ASC Topic 718, excluding the effect of estimated forfeitures. See Note 8 to our financial statements (for the years ended December 31, 2007, 2008 and 2009, included as part of our Registration Statement on Form S-1).

#### **Tax Aspects Under the Code**

The following is a summary of the principal federal income tax consequences of certain transactions under the 2010 Plan. It does not describe all federal tax consequences under the 2010 Plan, nor does it describe state or local tax consequences.

**The advice set forth below was not intended or written to be used, and it cannot be used, by any taxpayer for the purpose of avoiding United States federal tax penalties that may be imposed on the taxpayer. The advice was written to support the promotion or marketing of the transaction(s) or matter(s) addressed herein. Each taxpayer should seek advice based upon the taxpayer's particular circumstances from an independent tax advisor. The foregoing language is intended to satisfy the requirements under the regulations in Section 10.35 of Circular 230.**

*Incentive Options.* No taxable income is generally realized by the optionee upon the grant or exercise of an incentive option. If shares of common stock issued to an optionee pursuant to the exercise of an incentive option are sold or transferred after two years from the date of grant and after one year from the date of exercise, then (i) upon sale of such shares, any amount realized in excess of the option price (the amount paid for the shares) will be taxed to the optionee as a long-term capital gain, and any loss sustained will be a long-term capital loss, and (ii) the Company will not be entitled to any deduction for federal income tax purposes. The exercise of an incentive option will give rise to an item of tax preference that may result in alternative minimum tax liability for the optionee.

If shares of common stock acquired upon the exercise of an incentive option are disposed of prior to the expiration of the two-year and one-year holding periods described above (a "disqualifying disposition"), generally (i) the optionee will realize ordinary income in the year of disposition in an amount equal to the excess (if any) of the fair market value of the shares of common stock at exercise (or, if less, the amount realized on a sale of such shares of common stock) over the option price thereof, and (ii) we will be entitled to deduct such amount. Special rules will apply where all or a portion of the exercise price of the incentive option is paid by tendering shares of common stock.

If an incentive option is exercised at a time when it no longer qualifies for the tax treatment described above, the option is treated as a non-qualified option. Generally, an incentive option will not be eligible for the tax

treatment described above if it is exercised more than three months following termination of employment (or one year in the case of termination of employment by reason of disability). In the case of termination of employment by reason of death, the three-month rule does not apply.

**Non-Qualified Options.** No income is realized by the optionee at the time the option is granted. Generally (i) at exercise, ordinary income is realized by the optionee in an amount equal to the difference between the option price and the fair market value of the shares of common stock on the date of exercise, and we receive a tax deduction for the same amount, and (ii) at disposition, appreciation or depreciation after the date of exercise is treated as either short-term or long-term capital gain or loss depending on how long the shares of common stock have been held. Special rules will apply where all or a portion of the exercise price of the non-qualified option is paid by tendering shares of common stock. Upon exercise, the optionee will also be subject to Social Security taxes on the excess of the fair market value over the exercise price of the option.

**Other Awards.** The Company generally will be entitled to a tax deduction in connection with an award under the 2010 Plan in an amount equal to the ordinary income realized by the participant at the time the participant recognizes such income. Participants typically are subject to income tax and recognize such tax at the time that an award is exercised, vests or becomes non-forfeitable, unless the award provides for a further deferral.

**Parachute Payments.** The vesting of any portion of an option or other award that is accelerated due to the occurrence of a change in control (such as a sale event) may cause a portion of the payments with respect to such accelerated awards to be treated as "parachute payments" as defined in the Code. Any such parachute payments may be non-deductible to the Company, in whole or in part, and may subject the recipient to a non-deductible 20% federal excise tax on all or a portion of such payment (in addition to other taxes ordinarily payable).

**Limitation on Deductions.** Under Section 162(m) of the Code, the Company's deduction for certain awards under the 2010 Plan may be limited to the extent that the Chief Executive Officer or other executive officer whose compensation is required to be reported in the summary compensation table (other than the Principal Financial Officer) receives compensation in excess of \$1 million a year (other than performance-based compensation that otherwise meets the requirements of Section 162(m) of the Code). The 2010 Plan is structured to allow certain awards to qualify as performance-based compensation.

### Equity Compensation Plan Information

The following table provides information regarding our equity compensation plan in effect as of December 31, 2009.

Plan Category	Equity Compensation Plan Information		
	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (a)	Weighted Average Exercise Price of Outstanding Options, Warrants and Rights (b)	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: 2005 Equity Incentive Plan(1) . . . . .	1,323,776	\$0.92	19,571
Equity compensation plans not approved by security holders: . . . . .	N/A	N/A	N/A
Total . . . . .	1,323,776	\$0.92	19,571

(1) The 2005 Equity Incentive Plan (the "2005 Plan") was adopted in January 2005 and a total of 2,175,817 shares of our common stock were reserved for issuance thereunder.

### **Required Vote**

The approval of the Amended and Restated 2010 Stock Option and Incentive Plan requires the affirmative vote of a majority of the votes cast on the proposal at the Annual Meeting.

### **Recommendation of the Board of Directors**

**The Board of Directors recommends that the stockholders vote FOR the approval of the Amended and Restated 2010 Stock Option and Incentive Plan.**

## **PROPOSAL 3**

### **APPROVAL OF THE ANTHERA PHARMACEUTICALS, INC. 2010 EMPLOYEE STOCK PURCHASE PLAN**

#### **Proposal**

The Board of Directors has adopted the Anthera Pharmaceuticals, Inc. 2010 Employee Stock Purchase Plan (the "2010 ESPP"), subject to stockholder approval, and has 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 2010 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 2010 ESPP is to attract and retain key personnel, and encourage stock ownership by the Company's employees.

The 2010 ESPP is a broad-based employee stock purchase plan under Section 423 of the Internal Revenue Code of 1986, as amended, and the regulations thereunder (the "Code").

The shares that are proposed to be reserved under the 2010 ESPP have an aggregate value of approximately \$0.6 million based on the closing price of the common stock as reported on the NASDAQ Global Market on May 28, 2010.

#### **Summary of the 2010 ESPP**

The following description of certain features of the 2010 ESPP is intended to be a summary only. The summary is qualified in its entirety by the full text of the 2010 ESPP that is attached hereto as *Appendix B*.

The 2010 ESPP is administered by the person or persons appointed by the Company's Board of Directors. The 2010 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 2010 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 2010 ESPP is approximately 20 persons.

The 2010 ESPP provides for two "offering periods" within each year, and the first is expected to commence on September 1, 2010 and will end on December 31, 2010. Thereafter, offering periods 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 commencing 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 2010 ESPP by enrolling prior to each semi-annual date to purchase shares under the 2010 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 2010 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) 5,000 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 2010 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.

The number of shares that are reserved for issuance under the 2010 ESPP is subject to adjustment for stock splits and similar events. The proceeds received by the Company from exercise under the 2010 ESPP will be used for the general purposes of the Company. Shares issued under the 2010 ESPP may be authorized but unissued shares or shares reacquired by the Company and held in its treasury.

The 2010 ESPP shall remain in full force and effect until suspended or discontinued by the Board of Directors. The Board of Directors may, at any time, terminate the 2010 ESPP; provided that the 2010 ESPP shall automatically terminate in accordance with its terms as of the tenth anniversary of its adoption by the Board of Directors. The Board of Directors may at any time, and from time to time, amend the 2010 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 2010 ESPP or making any other change that would require stockholder approval in order for the 2010 ESPP, as amended, to qualify as an "employee stock purchase plan" under Section 423(b) of the Code.

### **Tax Aspects Under the Code**

**The advice set forth below was not intended or written to be used, and it cannot be used, by any taxpayer for the purpose of avoiding United States federal tax penalties that may be imposed on the taxpayer. The advice was written to support the promotion or marketing of the transaction(s) or matter(s) addressed herein. Each taxpayer should seek advice based upon the taxpayer's particular circumstances from an independent tax advisor. The foregoing language is intended to satisfy the requirements under the regulations in Section 10.35 of Circular 230.**

The 2010 ESPP is intended to qualify as an "employee stock purchase plan" as defined in Section 423(b) of the Code, which provides that an employee participating in the plan is not required to pay any federal income tax when joining the 2010 ESPP or when purchasing the shares of common stock at the end of an offering. The employee is, however, required to pay federal income tax on the difference, if any, between the price at which he or she sells the shares and the price he or she paid for them.

If shares acquired under the 2010 ESPP are sold more than two years after the first day of the purchase period pursuant to which the shares were purchased, the employee will generally recognize ordinary income for the year in which the sale occurs equal to the lesser of (a) fifteen percent (15%) of the fair market value of the common stock on the first day of the offering period pursuant to which the shares were purchased or (b) the excess of the amount actually received for the shares over the amount paid. No taxable income results if the proceeds of the sale are equal to or less than the price paid for the shares. In addition, the employee may recognize long-term capital gain or loss in an amount equal to the difference between the proceeds of the sale and the employee's basis in the shares (*i.e.*, the employee's purchase price plus the amount taxed to the employee as ordinary income). The employee will receive long-term capital gain or loss treatment if he or she has held the shares for at least 12 months. No deduction is allowed to the Company.

If shares acquired under the 2010 ESPP are sold within two years of the first day of the purchase period pursuant to which the shares were purchased, the employee will recognize ordinary income equal to the difference between the fair market value of the shares on the last day of the offering and the employee's purchase price. This amount is reportable as ordinary income even if no profit was realized on the sale of shares or the shares were sold at a loss. Long-term or short-term (depending on the holding period for the shares) capital gain or loss will be recognized in an amount equal to the difference between the proceeds of sale and the employee's basis in the shares. The amount reportable as ordinary income from a sale made within two years of the first day of the purchase period pursuant to which the shares were purchased will generally be allowed as a tax deduction to the Company.

**New 2010 ESPP Plan Benefits**

Since participation in the 2010 ESPP is voluntary, the benefits or amounts that will be received by or allocated to any individual or group of individuals under the 2010 ESPP are not determinable.

**Required Vote**

The approval of the 2010 ESPP requires the affirmative vote of a majority of the votes cast on the proposal at the Annual Meeting.

**Recommendation of the Board of Directors**

**The Board of Directors unanimously recommends that stockholders vote FOR the approval of the 2010 Employee Stock Purchase Plan.**

**PROPOSAL 4**

**RATIFICATION OF AUDITORS**

The Audit Committee has appointed Deloitte & Touche LLP as the Company's independent registered public accounting firm for 2010. Representatives of Deloitte & Touche LLP will attend the Annual Meeting of Stockholders and will have the opportunity to make a statement if they desire to do so. They will also be available to respond to appropriate questions.

The following is a summary of fees billed by Deloitte & Touche LLP for fiscal years ended December 31, 2009 and 2008:

	<u>2009</u>	<u>2008</u>
Audit fees(1) . . . . .	\$362,316	\$28,000
Tax fees(2) . . . . .	<u>—</u>	<u>17,190</u>
Total . . . . .	\$362,316	\$45,190

- (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 filings on Form S-1 for our initial public offering.
- (2) Includes fees associated with federal income tax compliance, tax advice and tax planning.

**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 2009 and 2008 were pre-approved by the Audit Committee in accordance with the pre-approval policy described above.

**Required Vote**

The ratification of the selection of Deloitte & Touche LLP requires the affirmative vote of a majority of the votes cast on the proposal at the Annual Meeting.

**Recommendation of the Board of Directors**

**The Board of Directors recommends that the stockholders vote FOR the ratification of the appointment of Deloitte & Touche LLP as the independent registered public accounting firm of the Company for its fiscal year ending December 31, 2010.**

**EXECUTIVE OFFICERS**

The names of the executive officers of the Company, their ages as of June 1, 2010, and certain other information about them are set forth below (unless set forth elsewhere in this proxy statement).

<u>Name</u>	<u>Age</u>	<u>Position</u>
Paul F. Truex . . . . .	41	Chief Executive Officer, President and Director
Christopher P. Lowe . . . . .	42	Chief Financial Officer and Vice President of Administration
James E. Pennington, M.D. . . . .	67	Senior Clinical Fellow
Colin Hislop, M.D. . . . .	52	Senior Vice President and Chief Medical Officer
Debra Odink, Ph.D. . . . .	46	Senior Vice President, Pharmaceutical Research and Development
Joaquim Trias, Ph.D. . . . .	49	Senior Vice President, Preclinical Development
Stephen Lau . . . . .	38	Vice President, Corporate and Business Development
Ursula Fritsch, Pharm. D . . . . .	50	Vice President, Global Regulatory and Compliance
Georgina Kilfoil . . . . .	41	Senior Vice President, Product Development and Clinical Operations

The biographies of our executive officers, other than Mr. Truex, whose biography is set forth above, appear below.

*Christopher P. Lowe.* Mr. Lowe has served as our Chief Financial Officer and Vice President of Administration since November 2007. 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.

*James E. Pennington, M.D.* Dr. Pennington has served as our Senior Clinical Fellow since June 2010. Prior to that, he served as our Executive Vice President and Chief Medical Officer since March 2007. Dr. Pennington came to Anthera from CoTherix, Inc. where, since February 2004, he served as Executive Vice President and Chief Medical Officer, focusing on licensing and developing and commercializing therapeutic products for the treatment

of cardiovascular diseases. He holds a B.A. in General Science from the University of Oregon and an M.D. from the University of Oregon School of Medicine and is board certified in internal medicine and infectious disease.

*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 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.

*Joaquim Trias, Ph.D.* Dr. Trias has served as our Senior Vice President of Preclinical Development since December 2004. From July 1996 until July 2004, Dr. Trias was Vice President of Drug Discovery Research at Vicuron Pharmaceuticals Inc. where he directed internal discovery projects, from concept to clinical candidate, and participated in its clinical development programs. Dr. Trias holds a B.S. in Biology and a Ph.D. in microbiology from the University of Barcelona and completed his training at the University of California at Berkeley.

*Stephen Lau.* Mr. Lau has served as our Vice President of Corporate and Business Development since February 2008. From October 2003 until February 2008, Mr. Lau managed and negotiated in- and out-licensing opportunities at Amgen Inc., a biopharmaceutical company. From March 2001 until September 2003, Mr. Lau was an investment banker at Adams, Harkness & Hill. Prior to that, Mr. Lau was a management consultant at Strategic Decisions Group and Deloitte Consulting. Mr. Lau holds a B.A. in microbiology and an M.S. in immunology from the University of California at Davis, and a Master's degree in health care management from Harvard University.

*Ursula Fritsch, Pharm.D.* Dr. Fritsch has served as our Vice President, Global Regulatory and Compliance since April 2005. Prior to joining the company, from 2003 to 2005, Dr. Fritsch was Senior Director of Regulatory Affairs at Peninsula Pharmaceuticals, Inc., where she oversaw both early and late stage regulatory strategy and operations for their antibiotic portfolio. Prior to Peninsula, Dr. Fritsch held various management positions and oversaw several new drug application approvals at Genentech, Inc. and Oclassen Pharmaceuticals, Inc. and was head of regulatory at Onyx Pharmaceuticals, Inc. Dr. Fritsch holds a B.A. from the University of Nebraska and a Pharm. D. from Creighton University.

*Georgina Kilfoil.* Ms. Kilfoil has served as our Senior Vice President, Product Development and Clinical Operations since March 23, 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.

## 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 Compensation Committee of our Board of Directors. 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, 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 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 approving corporate goals and objectives relevant to the compensation of our Chief Executive Officer;
- evaluating the performance of our Chief Executive Officer 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 stock options and other 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. In late 2007, our Compensation Committee engaged J. Thelander Consulting, an independent consulting firm selected by our Compensation Committee, to review the compensation of our named executive officers and other key employees. J. Thelander Consulting compared the base salary, bonus and equity awards offered to these employees with aggregated data from 193 pre-IPO companies in the biotechnology, medical device, IT/software, cleantech and health care space. These 193 companies were selected because they were at a similar stage of development as we are and the majority of such companies were also based on the west coast and had levels of funding ranging from \$15 million to \$70 million. Accordingly, our Compensation Committee determined that these companies represented the types of companies with which we compete for executive employees. Based on our goal of attracting and retaining talented individuals to serve as executive officers in a competitive market, J. Thelander Consulting recommended targeting the 75th percentile of base salary, bonus and equity compensation offered by this group of companies. J. Thelander Consulting recommended targeting the 75th percentile of compensation at comparable companies in order to attract above-average executives, since attracting and retaining top talent is important to a smaller company like ours. To that end, J. Thelander Consulting recommended that we increase our offered base salary and bonus compensation for executive officers, and maintain the current level of offered equity compensation. Our Compensation Committee considered the recommendations and determined that the current compensation packages for our executive officers were sufficient in light of current market conditions, input from management and the desire to allocate resources to our clinical development study instead.

J. Thelander Consulting also reviewed the change in control and severance benefits we had in place at the time for our executives, which included all of our named executive officers. J. Thelander Consulting recommended that we maintain our current benefit levels for cash severance and health benefits, which are 12 months' cash severance and benefits continuation for our Chief Executive Officer and six months' cash severance and benefits continuation for our other executive officers, but provide for 100% acceleration of equity awards vesting in connection with the termination of employment of our executive officers in certain circumstances. At the time of J. Thelander Consulting's review, our change of control and severance benefits provided acceleration of 12 months of equity award vesting for our Chief Executive Officer and Chief Medical Officer and six months of equity award vesting for our other executive officers. Our Compensation Committee considered the recommendations and determined that the existing change of control and severance provisions for our executive officers were adequate to provide security to our executive officers whose leadership and experience would be crucial to maximize stockholder value during the course of ordinary business.

In September 2009, our Compensation Committee engaged J. Thelander Consulting 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, but has not yet made a determination on any changes to our executive compensation.

J. Thelander Consulting was retained by and reported directly to our Compensation Committee.

## **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 the J. Thelander Consulting comparable company data 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. In making determinations about the performance of our named executive officers, our Compensation Committee takes into account 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. In 2008, our corporate goals focused on clinical development of our product candidates, including achieving full enrollment in our Phase 2b clinical study and receiving advice from the FDA on a Special Protocol Assessment for a Phase 3 clinical study protocol for A-002, while our 2009 corporate goals focused on the continued clinical development of our product candidates, including completion of our Phase 2b clinical study for A-002.

We typically review the base salaries of our named executive officers annually. We may also 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. Although we do not target a specific percentile range, 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.

As part of its annual evaluation of salaries in 2008 for our named executive officers, our Board of Directors elected to maintain salaries for Mr. Truex and our other named executive officers at then-current levels. This determination was based on the recommendation of our Compensation Committee that such base salary provided adequate fixed income as compared to comparable company data and our Compensation Committee's own understanding of compensation at other pre-IPO companies in comparable industries, based in part on their respective experience on the Board of Directors of such companies, as well as management's view that base salaries should generally stay at the same level.

In February 2009, upon our Compensation Committee's recommendation, our Board of Directors approved temporary reduction in cash compensation of approximately 14% on average for all of our employees, including our named executive officers, which compensation reduction was reinstated in August 2009. This measure was taken in connection with the redeployment of resources to our research and development activities and the elimination of four positions in light of the financing and economic environment. In connection with this salary reduction, Mr. Truex was granted special authority by our Board of Directors to allocate in his sole discretion options to purchase an aggregate of 26,285 shares to individuals, including our named executive officers, who had demonstrated high achievement toward our goals.

On April 21, 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 are as follows:

<u>Named Executive Officer</u>	<u>Current Annual Base Salary</u>	<u>Annual Base Salary Effective May 1, 2010</u>
Paul F. Truex, . . . . . President and Chief Executive Officer	\$300,000	\$425,000
Christopher P. Lowe, . . . . . Chief Financial Officer and Vice President of Administration	\$250,000	\$300,000
James E. Pennington, . . . . . M.D., Senior Clinical Fellow	\$290,000	\$290,000
Colin Hislop, . . . . . M.D., Senior Vice President and Chief Medical Officer	\$270,000	\$320,000
Debra Odink, . . . . . Ph.D., Senior Vice President, Pharmaceutical Research and Development	\$200,000	\$225,000
Stephen Lau, . . . . . Vice President, Corporate and Business Development	\$200,000	\$210,000

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.

*Cash Bonuses.* As of December 31, 2009, we did not have a formal cash incentive program. While we have paid cash bonuses based on the achievement of approved operational milestones in the past, we did not establish a formal cash incentive program, nor did we pay any bonuses based on corporate goals in 2008. Our Compensation Committee has not made a determination or approved the payment of any bonuses based on corporate goals in 2009. Our 2008 and 2009 corporate goals were informal, but focused on the achievement of the following: in 2008, (1) developing and implementing an adjusted clinical development plan for our product candidates based on changes in market conditions and regulatory guidance and (2) obtaining additional financing; and in 2009, (1) continued clinical development of our product candidates, and (2) obtaining additional financing. For 2008, our Compensation Committee made the decision not to pay annual bonuses based on the need to manage expenses and allocate resources to our clinical development programs, and did not formally evaluate whether our 2008 corporate goals had been achieved. We did not have additional individual performance goals for our named executive officers in 2008 or 2009. Our Compensation Committee has the authority to award discretionary performance-based cash bonuses to our executive officers and certain non-executive employees. Our Compensation Committee considers awarding such discretionary bonuses in the event of extraordinary short-term efforts and achievements by our executives and employees, as recommended by management. No such discretionary bonuses were awarded in 2008. In 2009, discretionary bonuses were awarded to certain of our employees, including Dr. Hislop, Dr. Odink and Mr. Lau, in recognition of their efforts in connection with certain business development efforts.

On March 24, 2010, the Board of Directors adopted the Company's Executive Incentive Bonus Plan (the "Bonus Plan"), which applies to certain key executives (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 (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 shall have 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.

*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 has established grant guidelines for our employees, other than our Chief Executive Officer, based on an employee's position. These 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.

Grant guidelines for our named executive officers, other than our Chief Executive Officer, range from 0.25% to 2.75%, and ranges for each position are as follows:

<u>Principal Position</u>	<u>Grant Guidelines</u>
Chief Financial Officer . . . . .	1.25% - 2.5%
Chief Medical Officer . . . . .	1.25% - 2.5%
Senior Vice President, Clinical/Medical . . . . .	1.0% - 2.0%
Vice President, Non-Clinical/Pre-Clinical . . . . .	0.25% - 1.0%

Our Compensation Committee has not established grant guidelines for our Chief Executive Officer and any grants made are at the discretion of our Board of Directors.

Each of our named executive officers has either purchased restricted shares of common stock or received stock options to purchase shares of common stock in connection with their initial employment with us. 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. Certain employees, including Mr. Truex, were granted restricted stock in 2004 and 2005 because 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 options 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.

In connection with their initial employment, each of our named executive officers was granted stock options to purchase shares of our common stock, for an aggregate of 362,147 shares at an exercise price equal to the fair value of such shares at the dates of grant, which ranged from \$0.14 to \$1.34 per share. The options held by each named executive officer are subject to vesting in order to encourage each named executive officer to remain with us for several years, and subject to the other provisions of their respective option agreements, which are described below.

Equity incentive grants to our named executive officers and other employees are currently made at the discretion of our Board of Directors with the recommendation of our Compensation Committee out of our 2005 Equity Incentive Plan, or 2005 Equity Plan. In determining equity incentive grants, the compensation committee considers the grant guidelines it has established for each position, along with the equity incentives already provided to an employee. Our compensation committee also considers 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.

Our 2008 corporate goals included:

- initiation of our Phase 2b FRANCIS study;
- developing a regulatory path for our cardiovascular program;
- continued enrollment of patients in our IMPACTS study on the schedule prescribed by the clinical study protocol; and
- obtaining financing sufficient to fund the above goals.

Our 2009 corporate goals included:

- completion of our Phase 2b FRANCIS study;
- completion of the technology transfer of A-623 from Amgen;
- successful evaluation by a DSMB of the safety profile of A-001; and
- obtaining financing sufficient to fund the above goals.

Under the 2005 Equity Plan, we may grant equity incentive awards in the form of stock options, restricted stock awards or stock appreciation rights. In 2008, our Board of Directors granted options to purchase a total of 327,973 shares of common stock to our employees, directors and consultants, including options to purchase a total of 224,882 shares of common stock to our named executive officers, all at an exercise price of \$1.34 per share, which represented the fair value of our common stock on the dates of grant, as determined by our Board of Directors. In 2009, our Board of Directors granted options to purchase a total of 405,358 shares of common stock to our employees, directors and consultants, including options to purchase a total of 214,073 shares of common stock to our named executive officers, at exercise prices of \$1.51 and \$7.70 per share, which represented the fair value of our common stock on the dates of grant, as determined by our Board of Directors. In exercising its discretion to determine the amount of each grant for recommendation to our Board of Directors, the Compensation Committee generally takes into account each individual's contributions towards the achievement of our annual corporate goals; however, in 2008, no named executive officers received grants of equity awards, other than Mr. Lowe and Mr. Lau, whose grants of 122,663 and 102,219 options to purchase shares of our common stock, respectively, were made in connection with their initial employment. Furthermore, in 2009, upon the Compensation Committee's recommendation, our Board of Directors approved grants of equity awards to employees, including our named executive officers, who received a temporary reduction in cash compensation as discussed above and whose performance supported our 2008 corporate goals. Mr. Truex, Mr. Lowe, Dr. Pennington, Dr. Hislop, Dr. Odink and Mr. Lau each received grants of equity awards based upon the management team's contributions to our 2008 corporate goals 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. In addition, as discussed above in connection with the salary reduction, Mr. Truex was granted special authority by our Board of Directors to allocate in his sole discretion options to purchase shares of our common stock to individuals who had demonstrated high achievement toward our corporate goals, which individuals included our named executive officers. Dr. Hislop and Mr. Lau each received grants of equity awards in April 2009, which grants were based on Dr. Hislop's contributions to our FRANCIS study and Mr. Lau's contributions to our business development activities. 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.

The exercise price of each stock option granted under our 2005 Equity Plan is based on the fair value of our common stock on the date of grant. Historically, the fair value of our common stock for purposes of determining the exercise price of stock options has been determined by our Board of Directors based on its analysis of a number of factors including, among others, the total company valuation implied by our rounds of financing, the market value of similarly situated public companies, our anticipated future risks and opportunities, the rights and preferences of our preferred stock and the discounts customarily applicable to common stock of privately-held companies. We engaged independent valuation firms to assess the fair value of our common stock during 2006, 2007 and 2008. Based on several factors considered by our Board of Directors, including the valuation reports prepared by such firms, we determined the fair value of our common stock or option grants made in February and April 2009 to be \$1.51 per share, and for options grants made in 2008 to be \$1.34 per share. Based on several factors considered by our Board of Directors, we determined the fair value of our option grants made in October 2009 to be \$7.70 per share. Following our initial public offering, all stock options continue to be granted with an exercise price equal to the fair value of our common stock on the date of grant, but fair value 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.

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. Our stock options may also be exercised prior to the award vesting in full, subject to our right of repurchase pursuant to the 2005 Equity Plan. In addition, 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.

While we have only granted restricted stock awards to certain of our initial key employees, we have the authority to do so under our 2005 Equity Plan and our 2010 Stock Option and Incentive Plan, or 2010 Equity Plan. Restricted stock awards provide our named executive officers and other employees with the ability to purchase shares of our common stock at a fixed purchase price at the time of grant by entering into a restricted stock purchase agreement. Similar to stock options, shares of restricted stock 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 quarterly thereafter. 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.

We adopted an equity award grant policy that formalizes 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 (other than Dr. Pennington), 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, except for Dr. Pennington, are party to severance agreements that provide benefits upon termination of employment in connection with a change of control. In addition, in December 2007, our Compensation Committee recommended and our Board of Directors agreed that Mr. Lowe, our chief financial officer, should be offered the same change of control severance benefit levels as our chief executive officer, in light of his role in the company.

*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 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 Equity Plan are intended to qualify for the exemption. Restricted stock awards and restricted stock unit awards under our 2010 Equity 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 four other most highly compensated executive officers during the years ended December 31, 2009 and 2008. We refer to these officers in this proxy statement as our named executive officers.

Name and Principal Position as of December 31, 2009 and December 31, 2008	Year	Salary (\$)	Bonus (\$)	Awards \$(1)	Total (\$)
Paul F. Truex . . . . . President, Chief Executive Officer, and Director	2009	\$281,837	—	\$ 88,125	\$369,962
	2008	\$300,000	—	\$ —	\$300,000
Christopher P. Lowe . . . . . Chief Financial Officer and Vice President of Administration	2009	\$241,174	—	\$ 23,500	\$264,674
	2008	\$250,000	—	\$117,411	\$367,411
James E. Pennington, M.D. . . . . Executive Vice President and Chief Medical Officer	2009	\$228,845	—	\$ 29,375	\$258,220
	2008	\$290,000	—	\$ —	\$290,000
Colin Hislop, M.D. . . . . Senior Vice President, Cardiovascular Products	2009	\$259,621	\$1,247	\$ 8,795	\$289,663
	2008	\$270,000	—	\$ —	\$270,000
Debra Odink, Ph.D. . . . . Vice President, Pharmaceutical Research and Development	2009	\$158,580	\$3,996	\$ 29,375	\$191,951
	2008	\$200,000	\$ —	\$ —	\$200,000
Stephen Lau . . . . . Vice President, Corporate and Business Development	2009	\$189,621	\$1,682	\$ 16,162	\$207,465
	2008	\$180,303	—	\$ 97,843	\$278,146

(1) This column reflects the aggregate grant date fair value of equity awards granted in 2009 or 2008 and calculated in accordance with FASB ASC 718, excluding the effect of estimated forfeitures. See Note 8 to our financial statements (for the years ended December 31, 2007, 2008 and 2009, included as part of our Registration Statement on Form S-1) for a discussion of the assumptions made in determining the valuation of option awards.



### 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, 2009.

<u>Name</u>	<u>Grant Date</u>	<u>All Other Option Awards: Number of Securities Underlying Options(1)</u>	<u>Exercise or Base Price of Option Awards (\$/sh)</u>	<u>Grant Date Fair Value of Stock and Option Awards \$(2)</u>
Paul F. Truex .....	2/18/2009	66,376	\$1.51	\$66,761
	2/18/2009	21,240	\$1.51	\$21,364
Christopher P. Lowe .....	2/18/2009	23,364	\$1.51	\$23,500
James E. Pennington, M.D. ....	2/18/2009	29,205	\$1.51	\$29,375
Colin Hislop, M.D. ....	2/18/2009	23,364	\$1.51	\$23,500
	4/15/2009(3)	5,257	\$1.51	\$ 5,295
Debra Odink, Ph.D. ....	2/18/2009	29,205	\$1.51	\$29,375
Stephen Lau .....	2/18/2009	11,682	\$1.51	\$11,750
	4/15/2009(3)	4,380	\$1.51	\$ 4,412

- (1) Unless otherwise noted in the footnotes, these options vest in equal monthly installments over four years. The vesting commencement date of these grants is August 12, 2008.
- (2) The grant date fair value of each equity award is computed in accordance with FASB ASC 718, excluding the effect of estimated forfeitures. See Note 8 to our financial statements (for the years ended December 31, 2007, 2008 and 2009, included as part of our Registration Statement on Form S-1) for a discussion of the assumptions made in determining the valuation of option awards.
- (3) These options vest immediately on the grant date.

## Outstanding Equity Awards at Fiscal Year-End

The following table sets forth certain information with respect to outstanding equity awards as of December 31, 2009 with respect to our named executive officers.

Name	Option Awards				Stock Awards	
	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 #(1)	Market Value of Shares or Units of Stock That Have Not Vested \$(2)
Paul F. Truex	21,417	1,947(3)	\$0.14	4/6/2016	—	—
	362,826	—	\$0.26	1/23/2017	—	—
	44,252	22,124(4)	\$1.51	2/18/2019	—	—
	14,161	7,079(5)	\$1.51	2/18/2019	—	—
Christopher P. Lowe	2,920(12)	—	\$0.14	3/6/2016	—	—
	39,004	35,882(6)	\$1.34	2/21/2018	—	—
	24,884	22,893(7)	\$1.34	2/21/2018	—	—
	15,540	7,824(4)	\$1.51	2/18/2019	—	—
James E. Pennington, M.D.	26,103	11,864(8)	\$0.26	10/24/2017	—	—
	19,471	9,734(4)	\$1.51	2/18/2019	—	—
	—	—	—	—	32,857	\$252,999
Colin Hislop, M.D.	145,130	—	\$0.26	1/23/2017	—	—
	15,577	7,787(4)	\$1.51	2/18/2019	—	—
	5,257	—	\$1.51	4/15/2019	—	—
Debra Odink, Ph.D.	19,471	9,734(4)	\$1.51	2/18/2009	—	—
Stephen Lau	34,323	40,563(9)	\$1.34	2/21/2018	—	—
	12,528	14,805(10)	\$1.34	2/21/2018	—	—
	7,786	3,896(4)	\$1.51	2/18/2019	—	—
	4,380(11)	—	\$1.51	4/15/2019	—	—

\* 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 contain an early exercise feature subject to the Company's right of repurchase pursuant to the 2005 Equity Plan.

- (1) The number in this column represents shares of unvested stock options that were acquired upon exercise of stock options prior to the stock option vesting in full and which remain subject to the Company's right of repurchase as of December 31, 2009.
- (2) The fair value of our common stock as of December 31, 2009 was \$7.70 per share.
- (3) The vesting commencement date of this incentive stock option is April 6, 2006.
- (4) This incentive stock option vests in equal monthly installments over four years commencing on August 12, 2008.
- (5) This non-statutory stock option vests in equal monthly installments over four years commencing on August 12, 2008.
- (6) The vesting commencement date of this incentive stock option is November 26, 2007.
- (7) The vesting commencement date of this non-statutory stock option is November 26, 2007.
- (8) The vesting commencement date of this incentive stock option is March 19, 2007.
- (9) The vesting commencement date of this incentive stock option is February 7, 2008.
- (10) The vesting commencement date of this non-statutory stock option is February 7, 2008.
- (11) This incentive stock option vested immediately on grant date.
- (12) 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.

## Option Exercises and Stock Vested

### Stock Vested — 2009

The following table sets forth certain information with respect to the stock vested during the year ended December 31, 2009 with respect to our named executive officers. There were no exercised stock options during the year ended December 31, 2009 with respect to our named executive officers.

Name	Stock Awards	
	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$)(3)
Paul F. Truex .....	—	—
Christopher P. Lowe .....	—	—
James E. Pennington, M.D. ....	26,285(1)	195,560
Colin Hislop, M.D. ....	—	—
Debra Odink, Ph.D. ....	18,141(2)	134,969
Stephen Lau .....	—	—

- (1) On April 23, 2007, Dr. Pennington exercised 105,140 shares underlying a stock option award prior to the award vesting in full. During the year ended December 31, 2009, the Company's right of repurchase lapsed with respect to the number of shares in this column.
- (2) On October 19, 2007, Dr. Odink exercised 72,565 shares underlying a stock option award prior to the award vesting in full. During the year ended December 31, 2009, the Company's right of repurchase lapsed with respect to the number of shares in this column.
- (3) This column reflects the intrinsic value realized for shares vested in 2009, which represents the difference between the fair value of our common stock as of December 31, 2009 and the exercise price of the stock option.

## Stock and Benefit Plans

### 2005 Equity Incentive Plan

Our 2005 Equity 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 Equity Plan.

Our 2005 Equity 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 Equity Plan.

The 2005 Equity 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 Equity 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 Equity 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, 2009.

Our board of directors has determined not to grant any further awards under the 2005 Equity Plan after the completion of our initial public offering. We have adopted the 2010 Equity Plan to be effective upon the consummation of an initial public offering, under which we expect to make all future awards.

### ***Amended and Restated 2010 Stock Option and Incentive Plan***

Please refer to “Proposal 2 — Approval of Amended and Restated 2010 Stock Option and Incentive Plan” for a summary of the material terms of the 2010 Plan.

#### ***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 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.

***James E. Pennington, M.D.***

On October 15, 2009, we entered into an amended and restated severance benefits agreement with Dr. Pennington, which provides certain benefits upon the termination of employment. If we terminate Dr. Pennington's employment for any reason other than for cause or if there is a constructive termination, in either case, Dr. Pennington is entitled to receive as severance compensation 100% of his then-current base salary and payment of continuation coverage premiums for health, dental, and vision benefits for Dr. Pennington and his covered dependents, if any, for a period of 12 months pursuant to COBRA. In addition, Dr. Pennington is entitled to receive: (i) 12 months' accelerated vesting of his 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. This agreement was terminated on May 1, 2010, and Dr. Pennington is therefore no longer entitled to the severance benefits thereunder.

On June 2, 2010, we entered into an employment agreement with Dr. Pennington, which replaces the amended and restated severance benefits agreement entered into on October 15, 2009. The employment agreement provides that, as of May 1, 2010, and for a period of one year thereafter, Dr. Pennington will serve as our Senior Clinical Fellow. Dr. Pennington's annual base salary will remain unchanged and any unvested portions of Dr. Pennington's outstanding option grants shall be modified in that they shall vest (and the repurchase option with respect to any early exercised option grants shall lapse) over twelve months from May 1, 2010.

In addition, should we terminate Dr. Pennington's employment prior to May 1, 2011 for any reason other than for cause or if there is a constructive termination, then Dr. Pennington is entitled to receive his base salary and COBRA premiums for health benefits to the same extent as if he had remained employed through May 1, 2011. Additionally, upon such termination of employment, all unvested shares to purchase our common stock pursuant to stock options shall become vested and any vesting restrictions on any restricted stock awards that Dr. Pennington holds as of the date of such termination of employment shall lapse.

***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.

***Stephen Lau***

On October 16, 2009, we entered into an amended and restated change in control agreement with Mr. Lau. Upon the occurrence of a change in control or within 12 months thereafter, if we terminate Mr. Lau's employment for any reason other than for cause or if there is a constructive termination, in either case, Mr. Lau 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 Mr. Lau and his covered dependents, if any, for a period of six months pursuant to COBRA. In addition, Mr. Lau 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.

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, 2009. See section entitled "— Severance and Change in Control Agreements" above.

***Named Executive Officer Benefits and Payments Upon Termination(1)***

<u>Name</u>	<u>Involuntary Termination(2)</u>	<u>Involuntary Termination within One Year of Change in Control(3)</u>
Paul F. Truex . . . . .	—	\$310,630
Christopher P. Lowe . . . . .	—	\$259,483
James E. Pennington, M.D. . . . .	\$297,385	\$297,385
Colin Hislop, M.D. . . . .	—	\$139,792
Debra Odink, Ph.D. . . . .	—	\$104,663
Stephen Lau . . . . .	—	\$105,207

- (1) Assumes triggering event effective as of December 31, 2009. Upon a voluntary termination or termination for cause, each named executive officer would receive any earned but unpaid base salary and unpaid vacation accrued until December 31, 2009. These payments would be available to all employees upon termination.
- (2) Includes continuation of base salary determined as of December 31, 2009 and health, dental and vision benefits for 12 months for Dr. Pennington.
- (3) Includes continuation of base salary determined as of December 31, 2009 and health, dental and vision benefits for 12 months for Mr. Truex, Mr. Lowe and Dr. Pennington. All other named executive officers receive six months' continuation of base salary and benefits.

***Acceleration of Vesting of Options upon Termination(1)***

<u>Name</u>	<u>Number of Shares of Accelerated Stock and Value upon Involuntary Termination and in Connection with a Change in Control(2)</u>	<u>Number of Shares of Accelerated Stock and Value upon Involuntary Termination and not in Connection with a Change in Control(3)</u>
Paul F. Truex . . . . .	\$163,751(4)	—
Christopher P. Lowe . . . . .	\$423,753(5)	—
James E. Pennington, M.D. . . . .	\$537,151(6)	\$537,151(6)
Colin Hislop, M.D. . . . .	\$ 18,235(7)	—
Debra Odink, Ph.D. . . . .	\$ 22,794(8)	—
Stephen Lau . . . . .	\$170,875(9)	—

- (1) Assumes triggering event effective as of December 31, 2009 and excludes vested stock held as of such date. There was no public market for our common stock in 2009. We have estimated the market value of the accelerated option shares based on the difference between our initial public offering price of \$7.00 per share and the exercise price of such accelerated options.
- (2) Includes acceleration of options for 12 months for Mr. Truex, Mr. Lowe and Dr. Pennington. All other named executive officers have six months' acceleration of options.
- (3) Includes acceleration of options for 12 months for Dr. Pennington.
- (4) 12,897 of Mr. Truex's options would accelerate upon involuntary termination and in connection with a change of control.
- (5) 33,510 of Mr. Lowe's options would accelerate upon involuntary termination and in connection with a change of control.
- (6) 39,426 of Dr. Pennington's options would accelerate upon involuntary termination, including 26,285 shares with respect to which the Company's right of repurchase would lapse, which shares were acquired by Dr. Pennington upon exercise of options containing an early exercise feature.
- (7) 1,460 of Dr. Hislop's options would accelerate upon involuntary termination and in connection with a change of control.
- (8) 1,825 of Dr. Odink's options would accelerate upon involuntary termination and in connection with a change of control.
- (9) 13,507 of Mr. Lau's options would accelerate upon involuntary termination and in connection with a change of control.

**CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS**

Since January 1, 2009, 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. The following discussion reflects a 1-to-1.712 reverse split of our common stock effected on February 22, 2010, but does not give effect to the conversion of our preferred stock into shares of common stock in connection with our initial public offering.

**Private Placements of Securities**

***2009 Note and Warrant Financing***

In July and September 2009, we sold convertible promissory notes, or the 2009 notes, that are secured by a first priority security interest in all of our assets, and warrants, or the 2009 warrants, to purchase shares of our equity securities to certain of our existing investors for an aggregate purchase price of \$10.0 million. We refer to these transactions collectively as our 2009 note and warrant financing. The 2009 notes accrue interest at a rate of 8% per

annum and have a maturity date of the earliest of (i) July 17, 2010, (ii) the date of the sale of all or substantially all of our equity interests or assets or (iii) an event of default pursuant to the terms of the 2009 notes. The 2009 notes are automatically convertible into the securities that are sold in our next equity financing at a 25% discount to the price to which such securities are sold to other investors, or they are alternatively convertible into shares of our Series B-2 convertible preferred stock in connection with a change of control of the Company. 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. In addition, if a sale of all or substantially all of our equity interests or assets should occur prior to our next equity financing and any 2009 note has not been converted, we are obligated to pay such 2009 note holder an amount equal to the accrued interest and two times the outstanding principal amount on such note in conjunction with the closing of such sale. The 2009 notes converted into shares of common stock in connection with our initial public offering, and thus no principal or interest payments were ever made on the notes and no amounts remain due under such notes.

The following table summarizes the participation in the 2009 bridge financing 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 Acquired upon Conversion of Notes(a)	Shares Underlying Outstanding Warrants(b)
VantagePoint .....	\$ 4,569,675(1)	907,345	163,200
Sofinnova .....	\$ 2,951,720(2)	586,088	105,418
Pappas .....	\$ 770,225(3)	152,932	27,507
Caxton Advantage Life Sciences Fund, L.P. ....	\$ 854,190(4)	169,605	30,506
HBM BioCapital .....	\$ 854,190(5)	169,605	30,505
<b>TOTAL:</b> .....	<b><u>\$10,000,000</u></b>	<b><u>1,985,575</u></b>	<b><u>357,136</u></b>

- (a) Numbers in this column were calculated by dividing (x) the sum of (i) principal and (ii) accrued interest by (y) the conversion price of \$5.25 per share.
- (b) Numbers in this column were calculated by dividing (x) the quotient of (i) the principal and (ii) 25% by (y) the initial public offering price of \$7.00 per share.
- (1) Consists of (i) a convertible promissory note with a principal amount of \$1,656,051 purchased by VantagePoint Venture Partners IV (Q), L.P. on July 17, 2009, (ii) a convertible promissory note with a principal amount of \$2,484,076 purchased by VantagePoint Venture Partners IV (Q), L.P. on September 9, 2009, (iii) a convertible promissory note with a principal amount of \$165,788 purchased by VantagePoint Venture Partners IV, L.P. on July 17, 2009, (iv) a convertible promissory note with a principal amount of \$248,681 purchased by VantagePoint Venture Partners IV, L.P. on September 9, 2009, (v) a convertible promissory note with a principal amount of \$6,031 purchased by VantagePoint Venture Partners IV Principals Fund, L.P. on July 17, 2009 and (vi) a convertible promissory note with a principal amount of \$9,047 purchased by VantagePoint Venture Partners IV Principals Fund, L.P. on September 9, 2009.
- (2) Consists of (i) a convertible promissory note with a principal amount of \$1,180,688 purchased by Sofinnova Venture Partners VI, L.P. on July 17, 2009 and (ii) a convertible promissory note with a principal amount of \$1,771,032 purchased by Sofinnova Venture Partners VI, L.P. on September 9, 2009.
- (3) Consists of (i) a convertible promissory note with a principal amount of \$290,058 purchased by A.M. Pappas Life Science Ventures III, L.P. on July 17, 2009, (ii) a convertible promissory note with a principal amount of \$435,086 purchased by A.M. Pappas Life Science Ventures III, L.P. on September 9, 2009, (iii) a convertible promissory note with a principal amount of \$18,032 purchased by PV III CEO Fund, L.P. on July 17, 2009 and



- (iv) a convertible promissory note with a principal amount of \$27,049 purchased by PV III CEO Fund, L.P. on September 9, 2009.
- (4) Consists of (i) a convertible promissory note with a principal amount of \$341,676 purchased by Caxton Advantage Life Sciences Fund, L.P. on July 17, 2009 and (ii) a convertible promissory note with a principal amount of \$512,514 purchased by Caxton Advantage Life Sciences Fund, L.P. on September 9, 2009.
- (5) Consists of (i) a convertible promissory note with a principal amount of \$290,424 purchased by HBM BioCapital (EUR) L.P. on July 17, 2009, (ii) a convertible promissory note with a principal amount of \$435,637 purchased by HBM BioCapital (EUR) L.P. on September 9, 2009, (iii) a convertible promissory note with a principal amount of \$51,252 purchased by HBM BioCapital (USD) L.P. on July 17, 2009 and (iv) a convertible promissory note with a principal amount of \$76,877 purchased by HBM BioCapital (USD) L.P. on September 9, 2009.

### 2009 Equity Financing

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 are sold to the public in an initial public offering, or 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 issue 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 will be released simultaneously with the closing of an IPO in which the aggregate net proceeds to us (after underwriting discounts, commissions and fees) are 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 will be released simultaneously with the closing of an IPO in which the aggregate net proceeds to us (after underwriting discounts, commissions and fees) are at least \$20.0 million. The funds held in the escrow account were released in connection with the closing of our initial public offering on March 4, 2010.

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:

<u>Name</u>	<u>Aggregate Consideration to be Paid upon Closing of the 2009 Equity Financing</u>	<u>Shares Issued upon Release of Escrow Account(a)</u>
VantagePoint .....	\$ 7,586,035(1)	1,152,891
Sofinnova .....	\$ 4,898,784	744,496
Pappas .....	\$ 1,279,265(2)	194,416
Caxton Advantage Life Sciences Fund, L.P. ....	\$ 1,417,958	215,495
HBM BioCapital .....	<u>\$ 1,417,958(3)</u>	<u>215,495</u>
TOTAL: .....	<u>\$16,600,000</u>	<u>2,522,793</u>

- (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, has 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***

On December 11, 2009, we sold convertible promissory notes, or the escrow notes, that are 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 accrue interest at a rate of 8% per annum and have 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 are 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) are at least \$50.0 million, at the price per share in which shares are sold to the public, minus any per-share underwriting discounts, commissions or fees. However, if an IPO is not consummated by February 28, 2010, the escrow notes become exchangeable for exchange notes in the same principal amount plus any accrued interest thereon, which are automatically convertible into the securities that are sold in our next equity financing at a 25% discount to the price in which such securities are sold to other investors, or they are 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 is issued will be accompanied by a warrant, which is exercisable for the security into which the accompanying exchange note, if any, is converted, at the price at which that security is 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. Furthermore, if a sale of all or substantially all of our equity interests or assets should occur prior to our next equity financing and any exchange note has not converted, we shall pay such exchange note holder an amount equal to the accrued interest and 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 initial public offering were 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 are 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) are at least \$20.0 million. The escrow notes automatically converted into common stock upon the closing of our initial public offering 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:

<u>Name</u>	<u>Aggregate Consideration Paid</u>	<u>Shares Issued upon Conversion of Escrow Notes(a)</u>
VantagePoint .....	\$1,553,766(1)	240,222
Sofinnova .....	\$1,003,366	155,127
Pappas .....	\$ 262,018(2)	40,509
Caxton Advantage Life Sciences Fund, L.P. ....	\$ 290,425	44,901
HBM BioCapital .....	\$ 290,425(3)	44,901
<b>TOTAL:</b> .....	<u><u>\$3,400,000</u></u>	<u><u>525,660</u></u>

- (a) Numbers in this column 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.

***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 time period beginning January 1, 2009 and ending December 31, 2010, we expect that we will have paid Inclin approximately \$500,000 for the clinical research organization services it provides to us.

**Indemnification Agreements**

We have entered into indemnification agreements with each of our directors and certain of our executive officers. As permitted by the Delaware General Corporation Law, we have adopted provisions in our amended and restated certificate of incorporation that limit or eliminate the personal liability of our directors to us for monetary damages for a breach of their fiduciary duty as a director, except for liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- any unlawful payments related to dividends or unlawful stock repurchases, redemptions or other distributions; or
- any transaction from which the director derived an improper personal benefit.

Pursuant to our amended and restated certificate of incorporation and amended and restated bylaws, we are obligated, to the maximum extent permitted by Delaware law, to indemnify each of our directors and officers

against expenses (including attorneys' fees), judgments, fines, settlements and other amounts actually and reasonably incurred in connection with any proceeding, arising by reason of the fact that such person is or was an agent of the corporation. A "director" or "officer" includes any person who is or was a director or officer of us or as a director, partner, trustee, officer, employee or agent of any other corporation, partnership, limited liability company, joint venture, trust, employee benefit plan, foundation, association, organization or other legal entity which such person is or was serving at our request, but does not include the status of a person who is serving or has served as a director, officer, employee or agent of a constituent corporation absorbed in a merger or consolidation transaction with the Company with respect to such person's activities prior to said transaction unless specifically authorized by our Board of Directors or our stockholders. Pursuant to our amended and restated bylaws, we also have the power to indemnify our employees to the extent permitted under Delaware law. Our amended and restated bylaws provide that we shall advance expenses to directors in connection with any proceeding in which such director is involved because of his or her status as a director and we may, at the discretion of our Board of Directors, advance expenses to officers and employees in connection with any proceeding in which such officer or employee is involved because of his or her status as such. Our amended and restated bylaws permit us to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of us or, at our request, served in such a capacity for another enterprise.

We have entered into indemnification agreements with each of our directors and certain of our executive officers that are, in some cases, broader than the specific indemnification provisions permitted by Delaware law, and that may provide additional procedural protection. The indemnification agreements require us, among other things, to:

- indemnify officers and directors against certain liabilities that may arise because of their status as officers or directors; and
- advance expenses, as incurred, to officers and directors in connection with a legal proceeding, subject to limited exceptions.

At present, there is no pending litigation or proceeding involving any of our directors, officers or employees in which indemnification is sought, nor are we aware of any threatened litigation or proceeding that may result in claims for indemnification.

#### **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.

## 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 and each nominee to become a director, (ii) each named executive officer, (iii) all directors, nominees and executive officers as a group, and (iv) each person who we know beneficially owns more than 5% of our common stock as of April 30, 2010.

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 April 30, 2010, but excludes unvested stock options that 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 April 30, 2010. 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 22,305,570 shares outstanding as of April 30, 2010. 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.

<u>Name of Beneficial Owner</u>	<u>Number of Shares Beneficially Owned</u>	<u>Percent of Class</u>
<b>5% or Greater Stockholders:</b>		
VantagePoint Venture Partners IV, L.P. and affiliated entities, or VantagePoint(1) . . . . .	6,460,813	28.74%
Sofinnova Venture Partners VI, L.P. and affiliated entities, or Sofinnova(2) . . . . .	4,177,621	18.64%
Caxton Advantage Life Sciences Fund, L.P.(3) . . . . .	1,207,749	5.41%
HBM BioCapital, L.P. and affiliated entities(4) . . . . .	1,521,851	6.81%
A.M. Pappas Life Science Ventures III, L.P. and affiliated entities(5) . . . . .	1,159,806	5.19%
All 5% or greater stockholders as a group . . . . .	14,527,840	64.06%
<b>Named Executive Officers and Directors:</b>		
Paul F. Truex(6) . . . . .	1,143,331	5.03%
Christopher P. Lowe(7) . . . . .	207,259	*
James E. Pennington, M.D.(8) . . . . .	156,094	*
Colin Hislop, M.D.(9) . . . . .	173,265	*
Debra Odink, Ph.D.(10) . . . . .	117,224	*
Stephen Lau(11) . . . . .	72,524	*
Christopher S. Henney, Ph.D.(12) . . . . .	102,429	*
Annette Bianchi(13) . . . . .	11,499	*
James I. Healy, M.D., Ph.D.(2)(14) . . . . .	4,198,064	18.73%
A. Rachel Leheny, Ph.D.(3)(15) . . . . .	1,211,095	5.42%
Donald J. Santel(16) . . . . .	12,412	*
Daniel K. Spiegelman(17) . . . . .	—	—
David E. Thompson(18) . . . . .	29,811	*
All named executive officers and directors as a group (13 persons) . . . . .	7,438,577	31.89%

\* 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 11,499 shares of common stock that are exercisable within 60 days of April 30, 2010 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 4,072,203 shares of common stock and 105,418 shares of common stock issuable upon exercise of warrants, all owned of record by Sofinnova Venture Partners 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 holds 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.

- (3) Includes (i) 1,173,896 shares of common stock and 30,506 shares of common stock issuable upon exercise of warrants, all owned of record by Caxton Advantage Life Sciences Fund, L.P. and (ii) options to purchase an additional 3,347 shares of common stock that are exercisable within 60 days of April 30, 2010 that are owned of record by Dr. A. Rachel Leheny over which Caxton Advantage Life Sciences Fund, L.P. may be deemed to hold voting power. Caxton Advantage Venture Partners, L.P. has voting and investment power with respect to such shares. Decisions by Caxton Advantage Venture Partners, L.P. with respect to such shares are made by Advantage Life Sciences Partners, LLC, the Managing General Partner of Caxton Advantage Venture Partners, L.P., together with the investment committee of Caxton Advantage Venture Partners, L.P. Dr. Leheny and Eric Roberts have authority to take action on behalf of Advantage Life Sciences Partners, LLC as members of Advantage Life Sciences Partners, LLC. The investment committee of Caxton Advantage Venture Partners, L.P. as of the date hereof is comprised of (i) Mr. Roberts, (ii) Dr. Leheny, (iii) Bruce Kovner and (iv) Peter D'Angelo and the consent of four members is required with respect to any decision by the Investment Committee. Dr. Leheny is a director of Anthera, is (i) a Managing Director of Caxton Advantage Venture Partners, L.P., which is the General Partner of Caxton Advantage Life Sciences Fund, L.P., a life-sciences venture capital fund that she co-founded in 2006 and is (ii) a member of Advantage Life Sciences Partners LLC. Mr. Roberts and Dr. Leheny and the members of the Caxton Advantage Venture Partners, L.P. investment committee disclaim beneficial ownership, except to the extent of their proportionate pecuniary interests, either directly, or indirectly through Caxton Advantage Venture Partners, L.P. (or through any other entity which is a limited partner in Caxton Advantage Life Sciences Fund, L.P.), in Caxton Advantage Life Sciences Fund, L.P. The address for Caxton Advantage Life Sciences Fund, L.P. is 500 Park Avenue, New York, NY 10022.
- (4) Includes (i) 1,267,645 shares of common stock and 25,930 shares of common stock issuable upon exercise of warrants, all owned of record by HBM BioCapital (EUR) L.P. and (ii) 223,701 shares of common stock and 4,575 shares of common stock issuable upon exercise of warrants, all owned of record by HBM BioCapital (USD) L.P., collectively, the HBM BioCapital Funds. The board of directors of HBM 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 HBM 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.
- (5) Includes (i) 1,066,042 shares of common stock and 25,897 shares of common stock issuable upon exercise of warrants, all owned of record by A. M. Pappas Life Science Ventures III, L.P. and (ii) 66,257 shares of common stock and 1,610 shares of common stock issuable upon exercise of warrants, all owned of record by PV III CEO Fund, L.P. Arthur M. Pappas, in his role as chairman of the investment committee of AMP&A Management III, LLC, the general partner of A. M. Pappas Life Science Ventures III, L.P. and PV III CEO Fund, L.P., 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 A. M. Pappas Life Science Ventures III, L.P. and PV III CEO Fund, L.P. is 2520 Meridian Parkway, Suite 400, Durham, NC 27713.
- (6) Includes 716,617 shares of common stock and options to purchase an additional 426,714 shares of common stock that are exercisable within 60 days of April 30, 2010, all owned of record by Paul F. Truex.
- (7) Includes (i) 9,637 shares of common stock owned of recorded by Dina Gonzalez, Mr. Lowe's spouse, (ii) options to purchase 99,102 shares of common stock that are exercisable within 60 days of April 30, 2010 and 17,523 shares of common stock owned of record by Mr. Lowe and (iii) 80,997 shares of common stock owned of record by BioVest III. Mr. Lowe has sole voting and sole investment power with respect to the shares owned of record by BioVest III. Mr. Lowe disclaims beneficial ownership with respect to such shares except to the extent of his pecuniary interest therein. The address for BioVest III is 25801 Industrial Blvd., Suite B, Hayward, CA 94545.

- (8) Includes 105,140 shares of common stock, 19,714 shares of which are subject to the Company's right of repurchase, and options to purchase an additional 50,954 shares of common stock that are exercisable within 60 days of April 30, 2010 owned of record by Dr. Pennington.
- (9) Includes 5,841 shares of common stock and options to purchase an additional 167,424 shares of common stock that are exercisable within 60 days of April 30, 2010 owned of record by Dr. Hislop.
- (10) Includes 78,405 shares of common stock, options to purchase an additional 21,296 shares of common stock that are exercisable within 60 days of April 30, 2010 and 17,523 shares of common stock, all owned of record by the Debra A. Odink Living Trust, for which Dr. Odink serves as trustee.
- (11) Includes options to purchase 72,524 shares of common stock that are exercisable within 60 days of April 30, 2010 owned of record by Mr. Lau.
- (12) Includes (i) 55,489 shares of common stock, 16,550 shares of which are subject to the Company's right of repurchase, (ii) 33,960 shares of common stock and (iii) 12,980 shares of common stock, all owned of record by Dr. Henney.
- (13) Includes options to purchase 11,499 shares of common stock that are exercisable within 60 days of April 30, 2010 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.
- (14) Includes 20,443 shares of common stock owned of record by Dr. Healy, 8,944 shares of which are subject to the Company's right of repurchase.
- (15) Includes options to purchase 6,693 shares of common stock that are exercisable within 60 days of April 30, 2010 owned of record by Dr. Leheny. Caxton Advantage Life Sciences Fund, L.P. may be deemed to hold voting power with respect to 3,347 of these shares.
- (16) Includes options to purchase 12,412 shares of common stock that are exercisable within 60 days of April 30, 2010 owned of record by the Donald J. Santel and Kelly L. McGinnis Revocable Living Trust.
- (17) Mr. Spiegelman joined our Board of Directors on February 2, 2010.
- (18) Includes 20,443 shares of common stock and options to purchase an additional 9,368 shares of common stock that are exercisable within 60 days of April 30, 2010 owned of record by Mr. Thompson.



## 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 since the closing of our initial public offering on March 4, 2010.

*The following Compensation Committee Report and Audit Committee Report are not considered proxy solicitation materials and are 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 and Audit 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 proxy statement 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 proxy statement on Schedule 14A for filing with the SEC.

### COMPENSATION COMMITTEE

DAVID E. THOMPSON, CHAIRMAN  
A. RACHEL LEHENY, PH.D.  
DONALD J. SANTEL

## AUDIT COMMITTEE REPORT

The Audit Committee of the Board of Directors (the "Audit Committee") has furnished this report concerning the independent audit of the Company's financial statements. Each member of the Audit Committee meets the enhanced independence standards established by the Sarbanes-Oxley Act of 2002 and rulemaking of the Securities and Exchange Commission (the "SEC") and the NASDAQ Stock Market regulations. A copy of the Audit Committee Charter is available on the Company's website at <http://www.anthera.com>.

The Audit Committee's responsibilities include assisting the Board of Directors regarding the oversight of the integrity of the Company's financial statements, the Company's compliance with legal and regulatory requirements, the independent registered public accounting firm's qualifications and independence, and the performance of the Company's internal audit function and the independent registered public accounting firm.

In fulfilling its oversight responsibilities, the Audit Committee reviewed and discussed the Company's financial statements for the fiscal year ended December 31, 2009 with the Company's management and Deloitte & Touche LLP, the Company's independent registered public accounting firm. In addition, the Audit Committee has discussed with Deloitte & Touche LLP, with and without management present, their evaluation of the Company's internal accounting controls and overall quality of the Company's financial reporting. The Audit Committee also discussed with Deloitte & Touche LLP the matters required to be discussed by Statement on Auditing Standards No. 114, as amended (AICPA, Professional Standards, Vol. 1, AU Section 380), as adopted by the Public Company Accounting Oversight Board in Rule 3200T. The Audit Committee also received the written disclosures and the letter from Deloitte & Touche LLP required by the Public Company Accounting Oversight Board Rule 3526 and the Audit Committee discussed the independence of Deloitte & Touche LLP with that firm.

Based on the Audit Committee's review and discussions noted above, the Audit Committee recommended to the Board of Directors, and the Board of Directors approved, that the audited financial statements be included in the Company's Annual Report for the fiscal year ended December 31, 2009.

The Audit Committee and the Board of Directors also have recommended, subject to stockholder approval, the selection of Deloitte & Touche LLP as the Company's independent registered public accounting firm for the year ending December 31, 2010.

### AUDIT COMMITTEE

DANIEL K. SPIEGELMAN, CHAIRMAN  
JAMES I. HEALY, M.D., PH.D.  
DONALD J. SANTEL

## HOUSEHOLDING OF PROXY MATERIALS

We have adopted a procedure approved by the SEC known as "householding." This procedure allows multiple stockholders residing at the same address the convenience of receiving a single copy of our Notice, annual report on Form 10-K and proxy materials, as applicable. This allows us to save money by reducing the number of documents we must print and mail, and helps protect the environment as well.

Householding is available to both registered stockholders (i.e., those stockholders with certificates registered in their name) and streetname holders (i.e., those stockholders who hold their shares through a brokerage).

### Registered Stockholders

If you are a registered stockholder and have consented to our mailing of proxy materials and other stockholder information only to one account in your household, as identified by you, we will deliver or mail a single copy of our annual report and proxy materials for all registered stockholders residing at the same address. Your consent will be perpetual unless you revoke it, which you may do at any time by contacting the Householding Department of

Broadridge Financial Solutions, Inc., at 51 Mercedes Way, Edgewood, NY 11717, or by calling 1-800-542-1061. If you revoke your consent, we will begin sending you individual copies of future mailings of these documents within 30 days after we receive your revocation notice. If you received a householded mailing this year, and you would like to receive additional copies of our annual report and proxy materials, please submit your request to Investor Relations who will promptly deliver the requested copy.

Registered stockholders who have not consented to householding will continue to receive copies of annual reports and proxy materials for each registered stockholder residing at the same address. As a registered stockholder, you may elect to participate in householding and receive only a single copy of annual reports or proxy statements for all registered stockholders residing at the same address by contacting Broadridge as outlined above.

#### **Streetname Holders**

Stockholders who hold their shares through a brokerage may elect to participate in householding or revoke their consent to participate in householding by contacting their respective brokers.

#### **OTHER MATTERS**

We are not aware of any matters that may come before the meeting other than those referred to in the Notice of Annual Meeting of Stockholders. If any other matter shall properly come before the Annual Meeting, however, the persons named in the accompanying proxy intend to vote all proxies in accordance with their best judgment.

Accompanying this proxy statement is our Annual Report for the fiscal year ended December 31, 2009. Copies of our Annual Report for the fiscal year ended December 31, 2009 are available free of charge on our website at [www.anthera.com](http://www.anthera.com) or you can request a copy free of charge by calling Investor Relations at 510-856-5600 or sending an e-mail request to Investor Relations by accessing our website ([www.anthera.com](http://www.anthera.com)), selecting the "Investors" tab and then selecting "Investor Contact." Please include your contact information with the request.

By Order of the Board of Directors

Anthera Pharmaceuticals, Inc.



Sincerely,  
Bradley A. Bugdanowitz  
*Secretary*

Hayward, California  
June 7, 2010

*Amended and Restated 2010 Stock Option and Incentive Plan*

**ANTHERA PHARMACEUTICALS, INC.**

**AMENDED AND RESTATED 2010 STOCK OPTION AND INCENTIVE PLAN**

SECTION 1. GENERAL PURPOSE OF THE PLAN; DEFINITIONS

The name of the plan is the Anthera Pharmaceuticals, Inc. Amended and Restated 2010 Stock Option and Incentive Plan (the "Plan"). The purpose of the Plan is to encourage and enable the officers, employees, Non-Employee Directors and other key persons (including Consultants and prospective employees) of Anthera Pharmaceuticals, Inc. (the "Company") and its Subsidiaries upon whose judgment, initiative and efforts the Company largely depends for the successful conduct of its business to acquire a proprietary interest in the Company. It is anticipated that providing such persons with a direct stake in the Company's welfare will assure a closer identification of their interests with those of the Company and its stockholders, thereby stimulating their efforts on the Company's behalf and strengthening their desire to remain with the Company.

The following terms shall be defined as set forth below:

"*Act*" means the Securities Act of 1933, as amended, and the rules and regulations thereunder.

"*Administrator*" means either the Board or the compensation committee of the Board or a similar committee performing the functions of the compensation committee and which is comprised of not less than two Non-Employee Directors who are independent.

"*Award*" or "*Awards*," except where referring to a particular category of grant under the Plan, shall include Incentive Stock Options, Non-Qualified Stock Options, Stock Appreciation Rights, Restricted Stock Units, Restricted Stock Awards, Unrestricted Stock Awards, Cash-Based Awards, Performance Share Awards and Dividend Equivalent Rights.

"*Award Certificate*" means a written or electronic document setting forth the terms and provisions applicable to an Award granted under the Plan. Each Award Certificate is subject to the terms and conditions of the Plan.

"*Board*" means the Board of Directors of the Company.

"*Cash-Based Award*" means an Award entitling the recipient to receive a cash-denominated payment.

"*Code*" means the Internal Revenue Code of 1986, as amended, and any successor Code, and related rules, regulations and interpretations.

"*Consultant*" means any natural person that provides bona fide services to the Company, and such services are not in connection with the offer or sale of securities in a capital-raising transaction and do not directly or indirectly promote or maintain a market for the Company's securities.

"*Covered Employee*" means an employee who is a "Covered Employee" within the meaning of Section 162(m) of the Code.

"*Dividend Equivalent Right*" means an Award entitling the grantee to receive credits based on cash dividends that would have been paid on the shares of Stock specified in the Dividend Equivalent Right (or other award to which it relates) if such shares had been issued to and held by the grantee.

"*Effective Date*" means the date on which the Plan is approved by stockholders as set forth in Section 21.

"*Exchange Act*" means the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder.

"*Fair Market Value*" of the Stock on any given date means the fair market value of the Stock determined in good faith by the Administrator; provided, however, that if the Stock is admitted to quotation on the National Association of Securities Dealers Automated Quotation System ("NASDAQ"), NASDAQ Global Market or another national securities exchange, the determination shall be made by reference to market quotations. If

there are no market quotations for such date, the determination shall be made by reference to the last date preceding such date for which there are market quotations.

*"Incentive Stock Option"* means any Stock Option designated and qualified as an "incentive stock option" as defined in Section 422 of the Code.

*"Non-Employee Director"* means a member of the Board who is not also an employee of the Company or any Subsidiary.

*"Non-Qualified Stock Option"* means any Stock Option that is not an Incentive Stock Option.

*"Option"* or *"Stock Option"* means any option to purchase shares of Stock granted pursuant to Section 5.

*"Performance-Based Award"* means any Restricted Stock Award, Restricted Stock Units, Performance Share Award or Cash-Based Award granted to a Covered Employee that is intended to qualify as "performance-based compensation" under Section 162(m) of the Code and the regulations promulgated thereunder.

*"Performance Criteria"* means the criteria that the Administrator selects for purposes of establishing the Performance Goal or Performance Goals for an individual for a Performance Cycle. The Performance Criteria (which shall be applicable to the organizational level specified by the Administrator, including, but not limited to, the Company or a unit, division, group, or Subsidiary of the Company) that will be used to establish Performance Goals are limited to the following: achievement of key clinical milestones, earnings before interest, taxes, depreciation and amortization, net income (loss) (either before or after interest, taxes, depreciation and/or amortization), changes in the market price of the Stock, economic value-added, sales or revenue, acquisitions or strategic transactions, operating income (loss), cash flow (including, but not limited to, operating cash flow and free cash flow), return on capital, assets, equity, or investment, stockholder returns, return on sales, gross or net profit levels, productivity, expense, margins, operating efficiency, customer satisfaction, working capital, earnings (loss) per share of Stock, sales or market shares and number of customers, any of which may be measured either in absolute terms or as compared to any incremental increase or as compared to results of a peer group.

*"Performance Cycle"* means one or more periods of time, which may be of varying and overlapping durations, as the Administrator may select, over which the attainment of one or more Performance Criteria will be measured for the purpose of determining a grantee's right to and the payment of a Restricted Stock Award, Restricted Stock Units, Performance Share Award or Cash-Based Award. Each such period shall not be less than 12 months.

*"Performance Goals"* means, for a Performance Cycle, the specific goals established in writing by the Administrator for a Performance Cycle based upon the Performance Criteria.

*"Performance Share Award"* means an Award entitling the recipient to acquire shares of Stock upon the attainment of specified Performance Goals.

*"Restricted Stock Award"* means an Award entitling the recipient to acquire, at such purchase price (which may be zero) as determined by the Administrator, shares of Stock subject to such restrictions and conditions as the Administrator may determine at the time of grant.

*"Restricted Stock Units"* means an Award of phantom stock units to a grantee.

*"Sale Event"* shall mean (i) the sale of all or substantially all of the assets of the Company on a consolidated basis to an unrelated person or entity, (ii) a merger, reorganization or consolidation pursuant to which the holders of the Company's outstanding voting power immediately prior to such transaction do not own a majority of the outstanding voting power of the resulting or successor entity (or its ultimate parent, if applicable) immediately upon completion of such transaction, or (iii) the sale of all of the Stock of the Company to an unrelated person or entity.

“*Sale Price*” means the value as determined by the Administrator of the consideration payable, or otherwise to be received by stockholders, per share of Stock pursuant to a Sale Event.

“*Section 409A*” means Section 409A of the Code and the regulations and other guidance promulgated thereunder.

“*Stock*” means the Common Stock, par value \$0.001 per share, of the Company, subject to adjustments pursuant to Section 3.

“*Stock Appreciation Right*” means an Award entitling the recipient to receive shares of Stock having a value equal to the excess of the Fair Market Value of the Stock on the date of exercise over the exercise price of the Stock Appreciation Right multiplied by the number of shares of Stock with respect to which the Stock Appreciation Right shall have been exercised.

“*Subsidiary*” means any corporation or other entity (other than the Company) in which the Company has at least a 50 percent interest, either directly or indirectly.

“*Ten Percent Owner*” means an employee who owns or is deemed to own (by reason of the attribution rules of Section 424(d) of the Code) more than 10 percent of the combined voting power of all classes of stock of the Company or any parent or subsidiary corporation.

“*Unrestricted Stock Award*” means an Award of shares of Stock free of any restrictions.

SECTION 2. ADMINISTRATION OF PLAN; ADMINISTRATOR AUTHORITY TO SELECT GRANTEEES AND DETERMINE AWARDS

(a) Administration of Plan. The Plan shall be administered by the Administrator.

(b) Powers of Administrator. The Administrator shall have the power and authority to grant Awards consistent with the terms of the Plan, including the power and authority:

(i) to select the individuals to whom Awards may from time to time be granted;

(ii) to determine the time or times of grant, and the extent, if any, of Incentive Stock Options, Non-Qualified Stock Options, Stock Appreciation Rights, Restricted Stock Awards, Restricted Stock Units, Unrestricted Stock Awards, Cash-Based Awards, Performance Share Awards and Dividend Equivalent Rights, or any combination of the foregoing, granted to any one or more grantees;

(iii) to determine the number of shares of Stock to be covered by any Award;

(iv) to determine and modify from time to time the terms and conditions, including restrictions, not inconsistent with the terms of the Plan, of any Award, which terms and conditions may differ among individual Awards and grantees, and to approve the forms of Award Certificates;

(v) to accelerate at any time the exercisability or vesting of all or any portion of any Award;

(vi) subject to the provisions of Section 5(b), to extend at any time the period in which Stock Options may be exercised; and

(vii) at any time to adopt, alter and repeal such rules, guidelines and practices for administration of the Plan and for its own acts and proceedings as it shall deem advisable; to interpret the terms and provisions of the Plan and any Award (including related written instruments); to make all determinations it deems advisable for the administration of the Plan; to decide all disputes arising in connection with the Plan; and to otherwise supervise the administration of the Plan.

All decisions and interpretations of the Administrator shall be binding on all persons, including the Company and Plan grantees.

(c) Delegation of Authority to Grant Options. Subject to applicable law, the Administrator, in its discretion, may delegate to the Chief Executive Officer of the Company all or part of the Administrator’s authority and duties

with respect to the granting of Options to individuals who are (i) not subject to the reporting and other provisions of Section 16 of the Exchange Act and (ii) not Covered Employees. Any such delegation by the Administrator shall include a limitation as to the amount of Options that may be granted during the period of the delegation and shall contain guidelines as to the determination of the exercise price and the vesting criteria. The Administrator may revoke or amend the terms of a delegation at any time but such action shall not invalidate any prior actions of the Administrator's delegate or delegates that were consistent with the terms of the Plan.

(d) *Award Certificate.* Awards under the Plan shall be evidenced by Award Certificates that set forth the terms, conditions and limitations for each Award which may include, without limitation, the term of an Award and the provisions applicable in the event employment or service terminates.

(e) *Indemnification.* Neither the Board nor the Administrator, nor any member of either or any delegate thereof, shall be liable for any act, omission, interpretation, construction or determination made in good faith in connection with the Plan, and the members of the Board and the Administrator (and any delegate thereof) shall be entitled in all cases to indemnification and reimbursement by the Company in respect of any claim, loss, damage or expense (including, without limitation, reasonable attorneys' fees) arising or resulting therefrom to the fullest extent permitted by law and/or under the Company's articles or bylaws or any directors' and officers' liability insurance coverage which may be in effect from time to time and/or any indemnification agreement between such individual and the Company.

(f) *Foreign Award Recipients.* Notwithstanding any provision of the Plan to the contrary, in order to comply with the laws in other countries in which the Company and its Subsidiaries may operate or have employees or other individuals eligible for Awards, the Administrator, in its sole discretion, shall have the power and authority to: (i) determine which Subsidiaries shall be covered by the Plan; (ii) determine which individuals outside the United States are eligible to participate in the Plan; (iii) modify the terms and conditions of any Award granted to individuals outside the United States to comply with applicable foreign laws; (iv) establish subplans and modify exercise procedures and other terms and procedures, to the extent the Administrator determines such actions to be necessary or advisable (and such subplans and/or modifications shall be attached to this Plan as appendices); provided, however, that no such subplans and/or modifications shall increase the share limitations contained in Section 3(a) hereof; and (v) take any action, before or after an Award is made, that the Administrator determines to be necessary or advisable to obtain approval or comply with any local governmental regulatory exemptions or approvals. Notwithstanding the foregoing, the Administrator may not take any actions hereunder, and no Awards shall be granted, that would violate the Exchange Act or any other applicable United States securities law, the Code, or any other applicable United States governing statute or law.

### SECTION 3. STOCK ISSUABLE UNDER THE PLAN; MERGERS; SUBSTITUTION

(a) *Stock Issuable.* The maximum number of shares of Stock reserved and available for issuance under the Plan shall be the sum of (i) 433,644 shares, subject to adjustment as provided in Section 3(b), (ii) the number of shares of Stock that remain available for grants under the Anthera Pharmaceuticals, Inc. 2005 Equity Incentive Plan (the "2005 Plan") as of the Effective Date, (iii) the number of shares of Stock underlying any grants under the 2005 Plan that are forfeited, canceled or terminated (other than by exercise) from and after the Effective Date, and (iv) 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 four percent (4%) of the number of shares of Stock issued and outstanding on the immediately preceding December 31. Subject to such overall limitation, 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 pursuant to the first sentence of this Section 3(a) or (ii) 1,460,280 shares of Stock, subject in all cases to adjustment as provided in Section 3(b). For purposes of this limitation, the shares of Stock underlying any Awards that are forfeited, canceled, held back upon exercise of an Option or settlement of an Award to cover the exercise price or tax withholding, reacquired by the Company prior to vesting, satisfied without the issuance of Stock or otherwise terminated (other than by exercise) shall be added back to the shares of Stock available for issuance under the Plan. In the event the Company repurchases shares of Stock on the open market, such shares shall not be added to the shares of Stock available for issuance under the Plan. Subject to such overall limitations, shares of Stock may be issued up to such maximum



number pursuant to any type or types of Award; provided, however, that Stock Options or Stock Appreciation Rights with respect to no more than 116,822 shares of Stock may be granted to any one individual grantee during any one calendar year period. The shares available for issuance under the Plan may be authorized but unissued shares of Stock or shares of Stock reacquired by the Company.

(b) Changes in Stock. Subject to Section 3(c) hereof, if, as a result of any reorganization, recapitalization, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Company's capital stock, the outstanding shares of Stock are increased or decreased or are exchanged for a different number or kind of shares or other securities of the Company, or additional shares or new or different shares or other securities of the Company or other non-cash assets are distributed with respect to such shares of Stock or other securities, or, if, as a result of any merger or consolidation, sale of all or substantially all of the assets of the Company, the outstanding shares of Stock are converted into or exchanged for securities of the Company or any successor entity (or a parent or subsidiary thereof), the Administrator shall make an appropriate or proportionate adjustment in (i) the maximum number of shares reserved for issuance under the Plan, including the maximum number of shares that may be issued in the form of Incentive Stock Options, (ii) the number of Stock Options or Stock Appreciation Rights that can be granted to any one individual grantee and the maximum number of shares that may be granted under a Performance-Based Award, (iii) the number and kind of shares or other securities subject to any then outstanding Awards under the Plan, (iv) the repurchase price, if any, per share subject to each outstanding Restricted Stock Award, and (v) the exercise price for each share subject to any then outstanding Stock Options and Stock Appreciation Rights under the Plan, without changing the aggregate exercise price (i.e., the exercise price multiplied by the number of Stock Options and Stock Appreciation Rights) as to which such Stock Options and Stock Appreciation Rights remain exercisable. The Administrator shall also make equitable or proportionate adjustments in the number of shares subject to outstanding Awards and the exercise price and the terms of outstanding Awards to take into consideration cash dividends paid other than in the ordinary course or any other extraordinary corporate event. The adjustment by the Administrator shall be final, binding and conclusive. No fractional shares of Stock shall be issued under the Plan resulting from any such adjustment, but the Administrator in its discretion may make a cash payment in lieu of fractional shares.

(c) Mergers and Other Transactions. Except as the Administrator may otherwise specify with respect to particular Awards in the relevant Award Certificate, in the case of and subject to the consummation of a Sale Event, the Plan and all outstanding Awards granted hereunder shall terminate, unless provision is made in connection with the Sale Event in the sole discretion of the parties thereto for the assumption or continuation of Awards theretofore granted by the successor entity, or the substitution of such Awards with new Awards of the successor entity or parent thereof, with appropriate adjustment as to the number and kind of shares and, if appropriate, the per share exercise prices, as such parties shall agree (after taking into account any acceleration hereunder). In the event of such termination, (i) the Company shall have the option (in its sole discretion) to make or provide for a cash payment to the grantees holding Options and Stock Appreciation Rights, in exchange for the cancellation thereof, in an amount equal to the difference between (A) the Sale Price multiplied by the number of shares of Stock subject to outstanding Options and Stock Appreciation Rights (to the extent then exercisable (after taking into account any acceleration hereunder) at prices not in excess of the Sale Price) and (B) the aggregate exercise price of all such outstanding Options and Stock Appreciation Rights; or (ii) each grantee shall be permitted, within a specified period of time prior to the consummation of the Sale Event as determined by the Administrator, to exercise all outstanding Options and Stock Appreciation Rights held by such grantee. The Administrator shall also have the discretion to accelerate the vesting of all other Awards.

(d) Substitute Awards. The Administrator may grant Awards under the Plan in substitution for stock and stock based awards held by employees, directors or other key persons of another corporation in connection with the merger or consolidation of the employing corporation with the Company or a Subsidiary or the acquisition by the Company or a Subsidiary of property or stock of the employing corporation. The Administrator may direct that the substitute awards be granted on such terms and conditions as the Administrator considers appropriate in the circumstances. Any substitute Awards granted under the Plan shall not count against the share limitation set forth in Section 3(a).

SECTION 4. ELIGIBILITY

Grantees under the Plan will be such full or part-time officers and other employees, Non-Employee Directors and key persons (including Consultants and prospective employees) of the Company and its Subsidiaries as are selected from time to time by the Administrator in its sole discretion.

SECTION 5. STOCK OPTIONS

Any Stock Option granted under the Plan shall be in such form as the Administrator may from time to time approve.

Stock Options granted under the Plan may be either Incentive Stock Options or Non-Qualified Stock Options. Incentive Stock Options may be granted only to employees of the Company or any Subsidiary that is a "subsidiary corporation" within the meaning of Section 424(f) of the Code. To the extent that any Option does not qualify as an Incentive Stock Option, it shall be deemed a Non-Qualified Stock Option.

Stock Options granted pursuant to this Section 5 shall be subject to the following terms and conditions and shall contain such additional terms and conditions, not inconsistent with the terms of the Plan, as the Administrator shall deem desirable. If the Administrator so determines, Stock Options may be granted in lieu of cash compensation at the optionee's election, subject to such terms and conditions as the Administrator may establish.

(a) Exercise Price. The exercise price per share for the Stock covered by a Stock Option granted pursuant to this Section 5 shall be determined by the Administrator at the time of grant but shall not be less than 100 percent of the Fair Market Value on the date of grant. In the case of an Incentive Stock Option that is granted to a Ten Percent Owner, the option price of such Incentive Stock Option shall be not less than 110 percent of the Fair Market Value on the grant date.

(b) Option Term. The term of each Stock Option shall be fixed by the Administrator, but no Stock Option shall be exercisable more than ten years after the date the Stock Option is granted. In the case of an Incentive Stock Option that is granted to a Ten Percent Owner, the term of such Stock Option shall be no more than five years from the date of grant.

(c) Exercisability; Rights of a Stockholder. Stock Options shall become exercisable at such time or times, whether or not in installments, as shall be determined by the Administrator at or after the grant date. The Administrator may at any time accelerate the exercisability of all or any portion of any Stock Option. An optionee shall have the rights of a stockholder only as to shares acquired upon the exercise of a Stock Option and not as to unexercised Stock Options.

(d) Method of Exercise. Stock Options may be exercised in whole or in part, by giving written or electronic notice of exercise to the Company, specifying the number of shares to be purchased. Payment of the purchase price may be made by one or more of the following methods to the extent provided in the Option Award Certificate:

(i) In cash, by certified or bank check or other instrument acceptable to the Administrator;

(ii) Through the delivery (or attestation to the ownership) of shares of Stock that have been purchased by the optionee on the open market or that have been beneficially owned by the optionee for at least six months and that are not then subject to restrictions under any Company plan. Such surrendered shares shall be valued at Fair Market Value on the exercise date;

(iii) By the optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company for the purchase price; provided that in the event the optionee chooses to pay the purchase price as so provided, the optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Administrator shall prescribe as a condition of such payment procedure; or

(iv) With respect to Stock Options that are not Incentive Stock Options, by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price.

Payment instruments will be received subject to collection. The transfer to the optionee on the records of the Company or of the transfer agent of the shares of Stock to be purchased pursuant to the exercise of a Stock Option will be contingent upon receipt from the optionee (or a purchaser acting in his stead in accordance with the provisions of the Stock Option) by the Company of the full purchase price for such shares and the fulfillment of any other requirements contained in the Option Award Certificate or applicable provisions of laws (including the satisfaction of any withholding taxes that the Company is obligated to withhold with respect to the optionee). In the event an optionee chooses to pay the purchase price by previously-owned shares of Stock through the attestation method, the number of shares of Stock transferred to the optionee upon the exercise of the Stock Option shall be net of the number of attested shares. In the event that the Company establishes, for itself or using the services of a third party, an automated system for the exercise of Stock Options, such as a system using an internet website or interactive voice response, then the paperless exercise of Stock Options may be permitted through the use of such an automated system.

(e) Annual Limit on Incentive Stock Options. To the extent required for "incentive stock option" treatment under Section 422 of the Code, the aggregate Fair Market Value (determined as of the time of grant) of the shares of Stock with respect to which Incentive Stock Options granted under this Plan and any other plan of the Company or its parent and subsidiary corporations become exercisable for the first time by an optionee during any calendar year shall not exceed \$100,000. To the extent that any Stock Option exceeds this limit, it shall constitute a Non-Qualified Stock Option.

#### SECTION 6. STOCK APPRECIATION RIGHTS

(a) Exercise Price of Stock Appreciation Rights. The exercise price of a Stock Appreciation Right shall not be less than 100 percent of the Fair Market Value of the Stock on the date of grant.

(b) Grant and Exercise of Stock Appreciation Rights. Stock Appreciation Rights may be granted by the Administrator independently of any Stock Option granted pursuant to Section 5 of the Plan.

(c) Terms and Conditions of Stock Appreciation Rights. Stock Appreciation Rights shall be subject to such terms and conditions as shall be determined from time to time by the Administrator. The term of a Stock Appreciation Right may not exceed ten years.

#### SECTION 7. RESTRICTED STOCK AWARDS

(a) Nature of Restricted Stock Awards. The Administrator shall determine the restrictions and conditions applicable to each Restricted Stock Award at the time of grant. Conditions may be based on continuing employment (or other service relationship) and/or achievement of pre-established performance goals and objectives. The terms and conditions of each such Award Certificate shall be determined by the Administrator, and such terms and conditions may differ among individual Awards and grantees.

(b) Rights as a Stockholder. Upon the grant of the Restricted Stock Award and payment of any applicable purchase price, a grantee shall have the rights of a stockholder with respect to the voting of the Restricted Stock, subject to such conditions contained in the Restricted Stock Award Certificate. Unless the Administrator shall otherwise determine, (i) uncertificated Restricted Stock shall be accompanied by a notation on the records of the Company or the transfer agent to the effect that they are subject to forfeiture until such Restricted Stock are vested as provided in Section 7(d) below, and (ii) certificated Restricted Stock shall remain in the possession of the Company until such Restricted Stock is vested as provided in Section 7(d) below, and the grantee shall be required, as a condition of the grant, to deliver to the Company such instruments of transfer as the Administrator may prescribe.

(c) Restrictions. Restricted Stock may not be sold, assigned, transferred, pledged or otherwise encumbered or disposed of except as specifically provided herein or in the Restricted Stock Award Certificate. Except as may otherwise be provided by the Administrator either in the Award Certificate or, subject to Section 18 below, in

writing after the Award is issued, if a grantee's employment (or other service relationship) with the Company and its Subsidiaries terminates for any reason, any Restricted Stock that has not vested at the time of termination shall automatically and without any requirement of notice to such grantee from or other action by or on behalf of, the Company be deemed to have been reacquired by the Company at its original purchase price (if any) from such grantee or such grantee's legal representative simultaneously with such termination of employment (or other service relationship), and thereafter shall cease to represent any ownership of the Company by the grantee or rights of the grantee as a stockholder. Following such deemed reacquisition of unvested Restricted Stock that are represented by physical certificates, a grantee shall surrender such certificates to the Company upon request without consideration.

(d) Vesting of Restricted Stock. The Administrator at the time of grant shall specify the date or dates and/or the attainment of pre-established performance goals, objectives and other conditions on which the non-transferability of the Restricted Stock and the Company's right of repurchase or forfeiture shall lapse. Subsequent to such date or dates and/or the attainment of such pre-established performance goals, objectives and other conditions, the shares on which all restrictions have lapsed shall no longer be Restricted Stock and shall be deemed "vested." Except as may otherwise be provided by the Administrator either in the Award Certificate or, subject to Section 18 below, in writing after the Award is issued, a grantee's rights in any shares of Restricted Stock that have not vested shall automatically terminate upon the grantee's termination of employment (or other service relationship) with the Company and its Subsidiaries and such shares shall be subject to the provisions of Section 7(c) above.

#### SECTION 8. RESTRICTED STOCK UNITS

(a) Nature of Restricted Stock Units. The Administrator shall determine the restrictions and conditions applicable to each Restricted Stock Unit at the time of grant. Conditions may be based on continuing employment (or other service relationship) and/or achievement of pre-established performance goals and objectives. The terms and conditions of each such Award Certificate shall be determined by the Administrator, and such terms and conditions may differ among individual Awards and grantees. At the end of the deferral period, the Restricted Stock Units, to the extent vested, shall be settled in the form of shares of Stock. To the extent that an award of Restricted Stock Units is subject to Section 409A, it may contain such additional terms and conditions as the Administrator shall determine in its sole discretion in order for such Award to comply with the requirements of Section 409A.

(b) Election to Receive Restricted Stock Units in Lieu of Compensation. The Administrator may, in its sole discretion, permit a grantee to elect to receive a portion of future cash compensation otherwise due to such grantee in the form of an award of Restricted Stock Units. Any such election shall be made in writing and shall be delivered to the Company no later than the date specified by the Administrator and in accordance with Section 409A and such other rules and procedures established by the Administrator. Any such future cash compensation that the grantee elects to defer shall be converted to a fixed number of Restricted Stock Units based on the Fair Market Value of Stock on the date the compensation would otherwise have been paid to the grantee if such payment had not been deferred as provided herein. The Administrator shall have the sole right to determine whether and under what circumstances to permit such elections and to impose such limitations and other terms and conditions thereon as the Administrator deems appropriate. Any Restricted Stock Units that are elected to be received in lieu of cash compensation shall be fully vested.

(c) Rights as a Stockholder. A grantee shall have the rights as a stockholder only as to shares of Stock acquired by the grantee upon settlement of Restricted Stock Units; provided, however, that the grantee may be credited with Dividend Equivalent Rights with respect to the phantom stock units underlying his Restricted Stock Units, subject to such terms and conditions as the Administrator may determine.

(d) Termination. Except as may otherwise be provided by the Administrator either in the Award Certificate or, subject to Section 18 below, in writing after the Award is issued, a grantee's right in all Restricted Stock Units that have not vested shall automatically terminate upon the grantee's termination of employment (or cessation of service relationship) with the Company and its Subsidiaries for any reason.

#### SECTION 9. UNRESTRICTED STOCK AWARDS

Grant or Sale of Unrestricted Stock. The Administrator may, in its sole discretion, grant (or sell at par value or such higher purchase price determined by the Administrator) an Unrestricted Stock Award under the Plan. Unrestricted Stock Awards may be granted in respect of past services or other valid consideration, or in lieu of cash compensation due to such grantee.

SECTION 10. CASH-BASED AWARDS

Grant of Cash-Based Awards. The Administrator may, in its sole discretion, grant Cash-Based Awards to any grantee in such number or amount and upon such terms, and subject to such conditions, as the Administrator shall determine at the time of grant. The Administrator shall determine the maximum duration of the Cash-Based Award, the amount of cash to which the Cash-Based Award pertains, the conditions upon which the Cash-Based Award shall become vested or payable, and such other provisions as the Administrator shall determine. Each Cash-Based Award shall specify a cash-denominated payment amount, formula or payment ranges as determined by the Administrator. Payment, if any, with respect to a Cash-Based Award shall be made in accordance with the terms of the Award and may be made in cash or in shares of Stock, as the Administrator determines.

SECTION 11. PERFORMANCE SHARE AWARDS

(a) Nature of Performance Share Awards. The Administrator may, in its sole discretion, grant Performance Share Awards independent of, or in connection with, the granting of any other Award under the Plan. The Administrator shall determine whether and to whom Performance Share Awards shall be granted, the Performance Goals, the periods during which performance is to be measured, and such other limitations and conditions as the Administrator shall determine.

(b) Rights as a Stockholder. A grantee receiving a Performance Share Award shall have the rights of a stockholder only as to shares actually received by the grantee under the Plan and not with respect to shares subject to the Award but not actually received by the grantee. A grantee shall be entitled to receive shares of Stock under a Performance Share Award only upon satisfaction of all conditions specified in the Performance Share Award Certificate (or in a performance plan adopted by the Administrator).

(c) Termination. Except as may otherwise be provided by the Administrator either in the Award agreement or, subject to Section 18 below, in writing after the Award is issued, a grantee's rights in all Performance Share Awards shall automatically terminate upon the grantee's termination of employment (or cessation of service relationship) with the Company and its Subsidiaries for any reason.

SECTION 12. PERFORMANCE-BASED AWARDS TO COVERED EMPLOYEES

(a) Performance-Based Awards. Any employee or other key person providing services to the Company and who is selected by the Administrator may be granted one or more Performance-Based Awards in the form of a Restricted Stock Award, Restricted Stock Units, Performance Share Awards or Cash-Based Award payable upon the attainment of Performance Goals that are established by the Administrator and relate to one or more of the Performance Criteria, in each case on a specified date or dates or over any period or periods determined by the Administrator. The Administrator shall define in an objective fashion the manner of calculating the Performance Criteria it selects to use for any Performance Cycle. Depending on the Performance Criteria used to establish such Performance Goals, the Performance Goals may be expressed in terms of overall Company performance or the performance of a division, business unit, or an individual. The Administrator, in its discretion, may adjust or modify the calculation of Performance Goals for such Performance Cycle in order to prevent the dilution or enlargement of the rights of an individual (i) in the event of, or in anticipation of, any unusual or extraordinary corporate item, transaction, event or development, (ii) in recognition of, or in anticipation of, any other unusual or nonrecurring events affecting the Company, or the financial statements of the Company, or (iii) in response to, or in anticipation of, changes in applicable laws, regulations, accounting principles, or business conditions provided however, that the Administrator may not exercise such discretion in a manner that would increase the Performance-Based Award granted to a Covered Employee. Each Performance-Based Award shall comply with the provisions set forth below.

(b) Grant of Performance-Based Awards. With respect to each Performance-Based Award granted to a Covered Employee, the Administrator shall select, within the first 90 days of a Performance Cycle (or, if shorter,

within the maximum period allowed under Section 162(m) of the Code) the Performance Criteria for such grant, and the Performance Goals with respect to each Performance Criterion (including a threshold level of performance below which no amount will become payable with respect to such Award). Each Performance-Based Award will specify the amount payable, or the formula for determining the amount payable, upon achievement of the various applicable performance targets. The Performance Criteria established by the Administrator may be (but need not be) different for each Performance Cycle and different Performance Goals may be applicable to Performance-Based Awards to different Covered Employees.

(c) Payment of Performance-Based Awards. Following the completion of a Performance Cycle, the Administrator shall meet to review and certify in writing whether, and to what extent, the Performance Goals for the Performance Cycle have been achieved and, if so, to also calculate and certify in writing the amount of the Performance-Based Awards earned for the Performance Cycle. The Administrator shall then determine the actual size of each Covered Employee's Performance-Based Award, and, in doing so, may reduce or eliminate the amount of the Performance-Based Award for a Covered Employee if, in its sole judgment, such reduction or elimination is appropriate.

(d) Maximum Award Payable. The maximum Performance-Based Award payable to any one Covered Employee under the Plan for a Performance Cycle is 116,822 shares of Stock (subject to adjustment as provided in Section 3(c) hereof) or \$2 million in the case of a Performance-Based Award that is a Cash-Based Award.

#### SECTION 13. DIVIDEND EQUIVALENT RIGHTS

(a) Dividend Equivalent Rights. A Dividend Equivalent Right may be granted hereunder to any grantee as a component of an award of Restricted Stock Units, Restricted Stock Award or Performance Share Award or as a freestanding award. The terms and conditions of Dividend Equivalent Rights shall be specified in the Award Certificate. Dividend equivalents credited to the holder of a Dividend Equivalent Right may be paid currently or may be deemed to be reinvested in additional shares of Stock, which may thereafter accrue additional equivalents. Any such reinvestment shall be at Fair Market Value on the date of reinvestment or such other price as may then apply under a dividend reinvestment plan sponsored by the Company, if any. Dividend Equivalent Rights may be settled in cash or shares of Stock or a combination thereof, in a single installment or installments. A Dividend Equivalent Right granted as a component of an award of Restricted Stock Units, Restricted Stock Award or Performance Share Award may provide that such Dividend Equivalent Right shall be settled upon settlement or payment of, or lapse of restrictions on, such other Award, and that such Dividend Equivalent Right shall expire or be forfeited or annulled under the same conditions as such other Award. A Dividend Equivalent Right granted as a component of a Restricted Stock Units, Restricted Stock Award or Performance Share Award may also contain terms and conditions different from such other Award.

(b) Interest Equivalents. Any Award under this Plan that is settled in whole or in part in cash on a deferred basis may provide in the grant for interest equivalents to be credited with respect to such cash payment. Interest equivalents may be compounded and shall be paid upon such terms and conditions as may be specified by the grant.

(c) Termination. Except as may otherwise be provided by the Administrator either in the Award Certificate or, subject to Section 18 below, in writing after the Award is issued, a grantee's rights in all Dividend Equivalent Rights or interest equivalents granted as a component of an award of Restricted Stock Units, Restricted Stock Award or Performance Share Award that has not vested shall automatically terminate upon the grantee's termination of employment (or cessation of service relationship) with the Company and its Subsidiaries for any reason.

#### SECTION 14. TRANSFERABILITY OF AWARDS

(a) Transferability. Except as provided in Section 14(b) below, during a grantee's lifetime, his or her Awards shall be exercisable only by the grantee, or by the grantee's legal representative or guardian in the event of the grantee's incapacity. No Awards shall be sold, assigned, transferred or otherwise encumbered or disposed of by a grantee other than by will or by the laws of descent and distribution or pursuant to a domestic relations order. No Awards shall be subject, in whole or in part, to attachment, execution, or levy of any kind, and any purported transfer in violation hereof shall be null and void.

(b) *Administrator Action.* Notwithstanding Section 14(a), the Administrator, in its discretion, may provide either in the Award Certificate regarding a given Award or by subsequent written approval that the grantee (who is an employee or director) may transfer his or her Awards (other than any Incentive Stock Options or Restricted Stock Units) to his or her immediate family members, to trusts for the benefit of such family members, or to partnerships in which such family members are the only partners, provided that the transferee agrees in writing with the Company to be bound by all of the terms and conditions of this Plan and the applicable Award. In no event may an Award be transferred by a grantee for value.

(c) *Family Member.* For purposes of Section 14(b), “family member” shall mean a grantee’s child, stepchild, grandchild, parent, stepparent, grandparent, spouse, former spouse, sibling, niece, nephew, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships, any person sharing the grantee’s household (other than a tenant of the grantee), a trust in which these persons (or the grantee) have more than 50 percent of the beneficial interest, a foundation in which these persons (or the grantee) control the management of assets, and any other entity in which these persons (or the grantee) own more than 50 percent of the voting interests.

(d) *Designation of Beneficiary.* Each grantee to whom an Award has been made under the Plan may designate a beneficiary or beneficiaries to exercise any Award or receive any payment under any Award payable on or after the grantee’s death. Any such designation shall be on a form provided for that purpose by the Administrator and shall not be effective until received by the Administrator. If no beneficiary has been designated by a deceased grantee, or if the designated beneficiaries have predeceased the grantee, the beneficiary shall be the grantee’s estate.

#### SECTION 15. TAX WITHHOLDING

(a) *Payment by Grantee.* Each grantee shall, no later than the date as of which the value of an Award or of any Stock or other amounts received thereunder first becomes includable in the gross income of the grantee for Federal income tax purposes, pay to the Company, or make arrangements satisfactory to the Administrator regarding payment of, any Federal, state, or local taxes of any kind required by law to be withheld by the Company with respect to such income. The Company and its Subsidiaries shall, to the extent permitted by law, have the right to deduct any such taxes from any payment of any kind otherwise due to the grantee. The Company’s obligation to deliver evidence of book entry (or stock certificates) to any grantee is subject to and conditioned on tax withholding obligations being satisfied by the grantee.

(b) *Payment in Stock.* Subject to approval by the Administrator, a grantee may elect to have the Company’s minimum required tax withholding obligation satisfied, in whole or in part, by authorizing the Company to withhold from shares of Stock to be issued pursuant to any Award a number of shares with an aggregate Fair Market Value (as of the date the withholding is effected) that would satisfy the withholding amount due.

#### SECTION 16. SECTION 409A AWARDS

To the extent that any Award is determined to constitute “nonqualified deferred compensation” within the meaning of Section 409A (a “409A Award”), the Award shall be subject to such additional rules and requirements as specified by the Administrator from time to time in order to comply with Section 409A. In this regard, if any amount under a 409A Award is payable upon a “separation from service” (within the meaning of Section 409A) to a grantee who is then considered a “specified employee” (within the meaning of Section 409A), then no such payment shall be made prior to the date that is the earlier of (i) six months and one day after the grantee’s separation from service, or (ii) the grantee’s death, but only to the extent such delay is necessary to prevent such payment from being subject to interest, penalties and/or additional tax imposed pursuant to Section 409A. Further, the settlement of any such Award may not be accelerated except to the extent permitted by Section 409A.

#### SECTION 17. TRANSFER, LEAVE OF ABSENCE, ETC.

For purposes of the Plan, the following events shall not be deemed a termination of employment:

(a) a transfer to the employment of the Company from a Subsidiary or from the Company to a Subsidiary, or from one Subsidiary to another; or

(b) an approved leave of absence for military service or sickness, or for any other purpose approved by the Company, if the employee's right to re-employment is guaranteed either by a statute or by contract or under the policy pursuant to which the leave of absence was granted or if the Administrator otherwise so provides in writing.

SECTION 18. AMENDMENTS AND TERMINATION

The Board may, at any time, amend or discontinue the Plan and the Administrator may, at any time, amend or cancel any outstanding Award for the purpose of satisfying changes in law or for any other lawful purpose, but no such action shall adversely affect rights under any outstanding Award without the holder's consent. The Administrator is specifically authorized to exercise its discretion to reduce the exercise price of outstanding Stock Options or Stock Appreciation Rights or effect the repricing of such Awards through cancellation and re-grants. To the extent required under the rules of any securities exchange or market system on which the Stock is listed, to the extent determined by the Administrator to be required by the Code to ensure that Incentive Stock Options granted under the Plan are qualified under Section 422 of the Code, or to ensure that compensation earned under Awards qualifies as performance-based compensation under Section 162(m) of the Code, Plan amendments shall be subject to approval by the Company stockholders entitled to vote at a meeting of stockholders. Nothing in this Section 18 shall limit the Administrator's authority to take any action permitted pursuant to Section 3(b) or 3(c).

SECTION 19. STATUS OF PLAN

With respect to the portion of any Award that has not been exercised and any payments in cash, Stock or other consideration not received by a grantee, a grantee shall have no rights greater than those of a general creditor of the Company unless the Administrator shall otherwise expressly determine in connection with any Award or Awards. In its sole discretion, the Administrator may authorize the creation of trusts or other arrangements to meet the Company's obligations to deliver Stock or make payments with respect to Awards hereunder, provided that the existence of such trusts or other arrangements is consistent with the foregoing sentence.

SECTION 20. GENERAL PROVISIONS

(a) No Distribution. The Administrator may require each person acquiring Stock pursuant to an Award to represent to and agree with the Company in writing that such person is acquiring the shares without a view to distribution thereof.

(b) Delivery of Stock Certificates. Stock certificates to grantees under this Plan shall be deemed delivered for all purposes when the Company or a stock transfer agent of the Company shall have mailed such certificates in the United States mail, addressed to the grantee, at the grantee's last known address on file with the Company. Uncertificated Stock shall be deemed delivered for all purposes when the Company or a Stock transfer agent of the Company shall have given to the grantee by electronic mail (with proof of receipt) or by United States mail, addressed to the grantee, at the grantee's last known address on file with the Company, notice of issuance and recorded the issuance in its records (which may include electronic "book entry" records). Notwithstanding anything herein to the contrary, the Company shall not be required to issue or deliver any certificates evidencing shares of Stock pursuant to the exercise of any Award, unless and until the Administrator has determined, with advice of counsel (to the extent the Administrator deems such advice necessary or advisable), that the issuance and delivery of such certificates is in compliance with all applicable laws, regulations of governmental authorities and, if applicable, the requirements of any exchange on which the shares of Stock are listed, quoted or traded. All Stock certificates delivered pursuant to the Plan shall be subject to any stop-transfer orders and other restrictions as the Administrator deems necessary or advisable to comply with federal, state or foreign jurisdiction, securities or other laws, rules and quotation system on which the Stock is listed, quoted or traded. The Administrator may place legends on any Stock certificate to reference restrictions applicable to the Stock. In addition to the terms and conditions provided herein, the Administrator may require that an individual make such reasonable covenants, agreements, and representations as the Administrator, in its discretion, deems necessary or advisable in order to comply with any such laws, regulations, or requirements. The Administrator shall have the right to require any individual to comply with any timing or other restrictions with respect to the settlement or exercise of any Award, including a window-period limitation, as may be imposed in the discretion of the Administrator.



(c) Stockholder Rights. Until Stock is deemed delivered in accordance with Section 20(b), no right to vote or receive dividends or any other rights of a stockholder will exist with respect to shares of Stock to be issued in connection with an Award, notwithstanding the exercise of a Stock Option or any other action by the grantee with respect to an Award.

(d) Other Compensation Arrangements; No Employment Rights. Nothing contained in this Plan shall prevent the Board from adopting other or additional compensation arrangements, including trusts, and such arrangements may be either generally applicable or applicable only in specific cases. The adoption of this Plan and the grant of Awards do not confer upon any employee any right to continued employment with the Company or any Subsidiary.

(e) Trading Policy Restrictions. Option exercises and other Awards under the Plan shall be subject to the Company's insider trading policies and procedures, as in effect from time to time.

(f) Forfeiture of Awards under Sarbanes-Oxley Act. If the Company is required to prepare an accounting restatement due to the material noncompliance of the Company, as a result of misconduct, with any financial reporting requirement under the securities laws, then any grantee who is one of the individuals subject to automatic forfeiture under Section 304 of the Sarbanes-Oxley Act of 2002 shall reimburse the Company for the amount of any Award received by such individual under the Plan during the 12-month period following the first public issuance or filing with the United States Securities and Exchange Commission, as the case may be, of the financial document embodying such financial reporting requirement.

SECTION 21. EFFECTIVE DATE OF PLAN

This Plan shall become effective upon stockholder approval in accordance with applicable state law, the Company's bylaws and certificate of incorporation, and applicable stock exchange rules. No grants of Stock Options and other Awards may be made hereunder after the tenth anniversary of the Effective Date and no grants of Incentive Stock Options may be made hereunder after the tenth anniversary of the date the Plan is approved by the Board.

SECTION 22. GOVERNING LAW

This Plan and all Awards and actions taken thereunder shall be governed by, and construed in accordance with, the laws of the State of Delaware, applied without regard to conflict of law principles.

DATE APPROVED BY BOARD OF DIRECTORS: May 20, 2010

DATE APPROVED BY STOCKHOLDERS:

**2010 Employee Stock Purchase Plan**

## ANTHERA PHARMACEUTICALS, INC.

### 2010 EMPLOYEE STOCK PURCHASE PLAN

The purpose of the Anthera Pharmaceuticals, Inc. 2010 Employee Stock Purchase Plan (“the Plan”) is to provide eligible employees of Anthera Pharmaceuticals, Inc. (the “Company”) and each Designated Subsidiary (as defined in Section 11) with opportunities to purchase shares of the Company’s common stock, par value \$0.001 per share (the “Common Stock”). 100,000 shares of Common Stock have been approved and reserved for this purpose, plus on January 1, 2011 and each January 1 thereafter, the number of shares of Common Stock reserved and available for issuance under the Plan shall be cumulatively increased by the lesser of (i) 1 percent 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. The Plan is intended to constitute an “employee stock purchase plan” within the meaning of Section 423(b) of the Internal Revenue Code of 1986, as amended (the “Code”), and shall be interpreted in accordance with that intent.

1. Administration. The Plan will be administered by the person or persons (the “Administrator”) appointed by the Company’s Board of Directors (the “Board”) for such purpose. The Administrator has authority at any time to: (i) adopt, alter and repeal such rules, guidelines and practices for the administration of the Plan and for its own acts and proceedings as it shall deem advisable; (ii) interpret the terms and provisions of the Plan; (iii) make all determinations it deems advisable for the administration of the Plan; (iv) decide all disputes arising in connection with the Plan; and (v) otherwise supervise the administration of the Plan. All interpretations and decisions of the Administrator shall be binding on all persons, including the Company and the Participants. No member of the Board or individual exercising administrative authority with respect to the Plan shall be liable for any action or determination made in good faith with respect to the Plan or any option granted hereunder.

2. Offerings. The Company will make one or more offerings to eligible employees to purchase Common Stock under the Plan (“Offerings”). Unless otherwise determined by the Administrator, the initial Offering will begin on September 1, 2010 and will end on the following December 31, 2010 (the “Initial Offering”). Thereafter, unless otherwise determined by the Administrator, an Offering will begin on the first business day occurring on or after each January 1st and July 1st and will end on the last business day occurring on or before the following June 30th and December 31st, respectively. The Administrator may, in its discretion, designate a different period for any Offering, provided that no Offering shall exceed six months in duration or overlap any other Offering.

3. Eligibility. All individuals classified as employees on the payroll records of the Company and each Designated Subsidiary are eligible to participate in any one or more of the Offerings under the Plan, provided that as of the first day of the applicable Offering (the “Offering Date”) they are customarily employed by the Company or a Designated Subsidiary for more than 20 hours a week. Notwithstanding any other provision herein, individuals who are not contemporaneously classified as employees of the Company or a Designated Subsidiary for purposes of the Company’s or applicable Designated Subsidiary’s payroll system are not considered to be eligible employees of the Company or any Designated Subsidiary and shall not be eligible to participate in the Plan. In the event any such individuals are reclassified as employees of the Company or a Designated Subsidiary for any purpose, including, without limitation, common law or statutory employees, by any action of any third party, including, without limitation, any government agency, or as a result of any private lawsuit, action or administrative proceeding, such individuals shall, notwithstanding such reclassification, remain ineligible for participation. Notwithstanding the foregoing, the exclusive means for individuals who are not contemporaneously classified as employees of the Company or a Designated Subsidiary on the Company’s or Designated Subsidiary’s payroll system to become eligible to participate in this Plan is through an amendment to this Plan, duly executed by the Company, which specifically renders such individuals eligible to participate herein.

4. Participation.

(a) Participants in Offerings. An eligible employee who is not a Participant on any Offering Date may participate in such Offering by submitting an enrollment form to his or her appropriate payroll location at least 15 business days before the Offering Date (or by such other deadline as shall be established by the Administrator for the Offering).

(b) Enrollment. The enrollment form will (a) state a whole percentage to be deducted from an eligible employee's Compensation (as defined in Section 11) per pay period, (b) authorize the purchase of Common Stock in each Offering in accordance with the terms of the Plan and (c) specify the exact name or names in which shares of Common Stock purchased for such individual are to be issued pursuant to Section 10. An employee who does not enroll in accordance with these procedures will be deemed to have waived the right to participate. Unless a Participant files a new enrollment form or withdraws from the Plan, such Participant's deductions and purchases will continue at the same percentage of Compensation for future Offerings, provided he or she remains eligible.

(c) Notwithstanding the foregoing, participation in the Plan will neither be permitted nor be denied contrary to the requirements of the Code.

5. Employee Contributions. Each eligible employee may authorize payroll deductions at a minimum of 1 percent up to a maximum of 10 percent of such employee's Compensation for each pay period. The Company will maintain book accounts showing the amount of payroll deductions made by each Participant for each Offering. No interest will accrue or be paid on payroll deductions.

6. Deduction Changes. Except as may be determined by the Administrator in advance of an Offering, a Participant may not increase or decrease his or her payroll deduction during any Offering, but may increase or decrease his or her payroll deduction with respect to the next Offering (subject to the limitations of Section 5) by filing a new enrollment form at least 15 business days before the next Offering Date (or by such other deadline as shall be established by the Administrator for the Offering). The Administrator may, in advance of any Offering, establish rules permitting a Participant to increase, decrease or terminate his or her payroll deduction during an Offering.

7. Withdrawal. A Participant may withdraw from participation in the Plan by delivering a written notice of withdrawal to his or her appropriate payroll location. The Participant's withdrawal will be effective as of the next business day. Following a Participant's withdrawal, the Company will promptly refund such individual's entire account balance under the Plan to him or her (after payment for any Common Stock purchased before the effective date of withdrawal). Partial withdrawals are not permitted. Such an employee may not begin participation again during the remainder of the Offering, but may enroll in a subsequent Offering in accordance with Section 4.

8. Grant of Options. On each Offering Date, the Company will grant to each eligible employee who is then a Participant in the Plan an option ("Option") to purchase on the last day of such Offering (the "Exercise Date"), at the Option Price hereinafter provided for, the lowest of (a) a number of shares of Common Stock determined by dividing such Participant's accumulated payroll deductions on such Exercise Date by the Option Price (as defined herein), (b) 5,000 shares; or (c) such other lesser maximum number of shares as shall have been established by the Administrator in advance of the Offering; provided, however, that such Option shall be subject to the limitations set forth below. Each Participant's Option shall be exercisable only to the extent of such Participant's accumulated payroll deductions on the Exercise Date. The purchase price for each share purchased under each Option (the "Option Price") will be 85 percent of the Fair Market Value of the Common Stock on the Offering Date or the Exercise Date, whichever is less.

Notwithstanding the foregoing, no Participant may be granted an option hereunder if such Participant, immediately after the option was granted, would be treated as owning stock possessing 5 percent or more of the total combined voting power or value of all classes of stock of the Company or any Parent or Subsidiary (as defined in Section 11). For purposes of the preceding sentence, the attribution rules of Section 424(d) of the Code shall apply in determining the stock ownership of a Participant, and all stock which the Participant has a contractual right to purchase shall be treated as stock owned by the Participant. In addition, no Participant may be granted an Option which permits his or her rights to purchase stock under the Plan, and any other employee stock purchase plan of the Company and its Parents and Subsidiaries, to accrue at a rate which exceeds \$25,000 of the fair market value of such stock (determined on the option grant date or dates) for each calendar year in which the Option is outstanding at any time. The purpose of the limitation in the preceding sentence is to comply with Section 423(b)(8) of the Code and shall be applied taking Options into account in the order in which they were granted.

9. Exercise of Option and Purchase of Shares. Each employee who continues to be a Participant in the Plan on the Exercise Date shall be deemed to have exercised his or her Option on such date and shall acquire from the Company such number of whole shares of Common Stock reserved for the purpose of the Plan as his or her accumulated payroll deductions on such date will purchase at the Option Price, subject to any other limitations contained in the Plan. Any amount remaining in a Participant's account at the end of an Offering solely by reason of the inability to purchase a fractional share will be carried forward to the next Offering; any other balance remaining in a Participant's account at the end of an Offering will be refunded to the Participant promptly.

10. Issuance of Certificates. Certificates (or, in the case of uncertificated Common Stock, registration in book entry form) representing shares of Common Stock purchased under the Plan may be issued only in the name of the employee, in the name of the employee and another person of legal age as joint tenants with rights of survivorship, or in the name of a broker authorized by the employee to be his, her or their, nominee for such purpose.

11. Definitions.

The term "Compensation" means the amount of base pay, prior to salary reduction pursuant to Sections 125, 132(f) or 401(k) of the Code, but excluding overtime, commissions, incentive or bonus awards, allowances and reimbursements for expenses such as relocation allowances or travel expenses, income or gains on the exercise of Company stock options, and similar items.

The term "Designated Subsidiary" means any present or future Subsidiary (as defined below) that has been designated by the Board to participate in the Plan. The Board may so designate any Subsidiary, or revoke any such designation, at any time and from time to time, either before or after the Plan is approved by the stockholders. The current list of Designated Subsidiaries is attached hereto as Appendix A.

The term "Fair Market Value of the Common Stock" on any given date means the fair market value of the Common Stock determined in good faith by the Administrator; provided, however, that if the Common Stock is admitted to quotation on the National Association of Securities Dealers Automated Quotation System ("NASDAQ"), NASDAQ Global Market or another national securities exchange, the determination shall be made by reference to the closing price on such date. If there is no closing price for such date, the determination shall be made by reference to the last date preceding such date for which there is a closing price.

The term "Parent" means a "parent corporation" with respect to the Company, as defined in Section 424(e) of the Code.

The term "Participant" means an individual who is eligible as determined in Section 3 and who has complied with the provisions of Section 4.

The term "Subsidiary" means a "subsidiary corporation" with respect to the Company, as defined in Section 424(f) of the Code.

12. Rights on Termination of Employment. If a Participant's employment terminates for any reason before the Exercise Date for any Offering, no payroll deduction will be taken from any pay due and owing to the Participant and the balance in the Participant's account will be paid to such Participant or, in the case of such Participant's death, to his or her designated beneficiary as if such Participant had withdrawn from the Plan under Section 7. An employee will be deemed to have terminated employment, for this purpose, if the corporation that employs him or her, having been a Designated Subsidiary, ceases to be a Subsidiary, or if the employee is transferred to any corporation other than the Company or a Designated Subsidiary. An employee will not be deemed to have terminated employment for this purpose, if the employee is on an approved leave of absence for military service or sickness or for any other purpose approved by the Company, if the employee's right to reemployment is guaranteed either by a statute or by contract or under the policy pursuant to which the leave of absence was granted or if the Administrator otherwise provides in writing.

13. Special Rules. Notwithstanding anything herein to the contrary, the Administrator may adopt special rules applicable to the employees of a particular Designated Subsidiary, whenever the Administrator determines that such rules are necessary or appropriate for the implementation of the Plan in a jurisdiction where such

Designated Subsidiary has employees; provided that such rules are consistent with the requirements of Section 423(b) of the Code. Any special rules established pursuant to this Section 13 shall, to the extent possible, result in the employees subject to such rules having substantially the same rights as other Participants in the Plan.

14. Optionees Not Stockholders. Neither the granting of an Option to a Participant nor the deductions from his or her pay shall constitute such Participant a holder of the shares of Common Stock covered by an Option under the Plan until such shares have been purchased by and issued to him or her.

15. Rights Not Transferable. Rights under the Plan are not transferable by a Participant other than by will or the laws of descent and distribution, and are exercisable during the Participant's lifetime only by the Participant.

16. Application of Funds. All funds received or held by the Company under the Plan may be combined with other corporate funds and may be used for any corporate purpose.

17. Adjustment in Case of Changes Affecting Common Stock. In the event of a subdivision of outstanding shares of Common Stock, the payment of a dividend in Common Stock or any other change affecting the Common Stock, the number of shares approved for the Plan and the share limitation set forth in Section 8 shall be equitably or proportionately adjusted to give proper effect to such event.

18. Amendment of the Plan. The Board may at any time and from time to time amend the Plan in any respect, except that without the approval within 12 months of such Board action by the stockholders, no amendment shall be made increasing the number of shares approved for the Plan or making any other change that would require stockholder approval in order for the Plan, as amended, to qualify as an "employee stock purchase plan" under Section 423(b) of the Code.

19. Insufficient Shares. If the total number of shares of Common Stock that would otherwise be purchased on any Exercise Date plus the number of shares purchased under previous Offerings under the Plan exceeds the maximum number of shares issuable under the Plan, the shares then available shall be apportioned among Participants in proportion to the amount of payroll deductions accumulated on behalf of each Participant that would otherwise be used to purchase Common Stock on such Exercise Date.

20. Termination of the Plan. The Plan may be terminated at any time by the Board; provided that the Plan shall automatically terminate upon the tenth anniversary of the adoption of the Plan by the Board. Upon termination of the Plan, all amounts in the accounts of Participants shall be promptly refunded.

21. Governmental Regulations. The Company's obligation to sell and deliver Common Stock under the Plan is subject to obtaining all governmental approvals required in connection with the authorization, issuance, or sale of such stock.

22. Governing Law. This Plan and all Options and actions taken thereunder shall be governed by, and construed in accordance with, the laws of the State of Delaware, applied without regard to conflict of law principles.

23. Issuance of Shares. Shares may be issued upon exercise of an Option from authorized but unissued Common Stock, from shares held in the treasury of the Company, or from any other proper source.

24. Tax Withholding. Participation in the Plan is subject to any minimum required tax withholding on income of the Participant in connection with the Plan. Each Participant agrees, by entering the Plan, that the Company and its Subsidiaries shall have the right to deduct any such taxes from any payment of any kind otherwise due to the Participant, including shares issuable under the Plan.

25. Notification Upon Sale of Shares. Each Participant agrees, by entering the Plan, to give the Company prompt notice of any disposition of shares purchased under the Plan where such disposition occurs within two years after the date of grant of the Option pursuant to which such shares were purchased.

26. Effective Date and Approval of Shareholders. The Plan shall take effect on the later of the date it is adopted by the Board and the date it is approved by the holders of a majority of the votes cast at a meeting of stockholders at which a quorum is present or by written consent of the stockholders.

Designated Subsidiaries

NONE

# **2009 Annual Report**



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## **COMPANY INFORMATION**

We were incorporated in Delaware on September 9, 2004 as Anthera Pharmaceuticals, Inc. Our corporate headquarters are located at 25801 Industrial Boulevard, Suite B, Hayward, California 94545 and our telephone number is (510) 856-5600. Our website address is [www.anthera.com](http://www.anthera.com). The information contained on our website or that can be accessed through our website is not incorporated by reference into this annual report and is not part of this annual report.

We use various trademarks, service marks and trade names in our business, including without limitation "Anthera Pharmaceuticals" and "Anthera." This annual report also contains trademarks, services marks and trade names of other businesses that are the property of their respective holders.

Unless the context otherwise requires, we use the terms "Anthera Pharmaceuticals," "Anthera," "we," "us," "the Company" and "our" in this annual report to refer to Anthera Pharmaceuticals, Inc. and its sole subsidiary.

## **INFORMATION REGARDING THIS ANNUAL REPORT**

This Annual Report for the fiscal year ended December 31, 2009 includes excerpts from our Registration Statement on Form S-1 (File No. 333-161930), as amended, for our initial public offering. The Registration Statement was declared effective by the Securities and Exchange Commission on February 26, 2010. All information included in this Annual Report is current as of such date, unless otherwise stated in this Annual Report.

## BUSINESS

### 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 ready clinical program, A-002, and two Phase 2 clinical programs, A-623 and A-001. Two of our product candidates, A-002 and A-001, are designed to inhibit a novel enzyme target known as secretory phospholipase A<sub>2</sub>, or sPLA<sub>2</sub>. Elevated levels of sPLA<sub>2</sub> 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 chronic stable coronary artery disease, or CAD. In addition, our Phase 2 ready product candidate, A-623, targets elevated levels of B-lymphocyte stimulator, or BLYS, 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.

### Product Development Programs

Product Candidates	Indication	Development Phase			
		Pre	P1	P2	P3
<b>A-002</b> <i>Oral sPLA<sub>2</sub></i>	Acute Coronary Syndrome (Cardiovascular Disease)	→			
<b>A-623</b> <i>Anti-BLYS/BAFF</i>	Systemic Lupus Erythematosus (Autoimmune Disease)	→			
<b>A-001</b> <i>IV sPLA<sub>2</sub></i>	Acute Chest Syndrome (Sickle Cell Disease)	→			
<b>A-003</b> <i>Novel sPLA<sub>2</sub></i>	Multiple Indications	→			

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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> inhibition. Our sPLA<sub>2</sub> inhibitors have been studied in a number of inflammatory disorders in multiple therapeutic areas, which validate the effect of our sPLA<sub>2</sub> inhibitors on sPLA<sub>2</sub> concentration and activity, both of which have been implicated in acute coronary syndrome and acute chest syndrome associated with sickle cell disease. We currently have the two most advanced sPLA<sub>2</sub> inhibitors in clinical development.

Our lead product candidate, varespladib methyl, A-002 (a prodrug of A-001), is a Phase 3 ready oral broad-spectrum inhibitor of sPLA<sub>2</sub> enzymes and is being developed initially for short-term (16-week) treatment of patients experiencing 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. A-002, when combined with lipid-lowering therapies, is one of only a few therapeutics in development with the potential to offer a unique and synergistic approach targeting inflammation, elevated lipid levels and atherosclerosis as part of physician-directed standard of care. Through its novel mechanism of action, A-002 may have applications in a broad range of acute and chronic cardiovascular diseases. Based on the successful results of our recently completed Phase 2b clinical study, we plan to initiate a Phase 3 clinical study in patients with acute coronary syndrome after completion of our initial public offering.

Our second product candidate, varespladib sodium, A-001, is an intravenously administered inhibitor of sPLA<sub>2</sub>, which is 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<sub>2</sub> inhibitors designed with distinct chemical scaffolds in preclinical development. These product candidates are intended to provide new sPLA<sub>2</sub> 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 A-002 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 A-002 and A-001 sPLA<sub>2</sub> 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 A-002 was equivalent to the marketed immunosuppressant Elidel in resolving inflammation. In a sheep model of allergen-induced asthma, inhaled A-002 and A-001 demonstrated an improvement in lung function similar to inhaled steroids.

## ***sPLA<sub>2</sub> Biology***

sPLA<sub>2</sub> is a family of enzymes directly involved in the acute and chronic steps of an inflammatory response. sPLA<sub>2</sub> activity is highly elevated during the early stages of inflammation, and its acute effects serve to substantially amplify the inflammatory process. The sPLA<sub>2</sub> 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<sub>2</sub>

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, excess sPLA<sub>2</sub> activity has acute and chronic implications on disease progression and patient outcomes. In published studies and our own clinical studies, significant elevations in sPLA<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> are significantly correlated with a well-established inflammatory marker, C-reactive protein, or CRP. These and other clinical studies have also demonstrated that sPLA<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> enzymes includes at least three forms that play a role in inflammation and the development of cardiovascular disease or lung injury. While sPLA<sub>2</sub> enzymes are a member of the phospholipase family that includes a lipoprotein associated phospholipase A<sub>2</sub>, or Lp-PLA<sub>2</sub>, there are important distinctions. Although both are present in blood, Lp-PLA<sub>2</sub> is mostly bound to LDL-C and high-density lipoprotein, or HDL, while sPLA<sub>2</sub> enzymes are not. Based on our clinical studies, we believe that our sPLA<sub>2</sub> inhibitor, A-002, can be distinguished from other PLA<sub>2</sub> enzyme inhibitors such as those targeted at inhibiting Lp-PLA<sub>2</sub> because A-002 treatment:

- is synergistic with HMG-CoA reductase inhibitors, or statins, 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<sub>2</sub> 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.

In diseases such as acute chest syndrome, a very serious form of lung injury associated with sickle cell disease, sPLA<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> enzymes and provide fuel for an already established inflammatory response, increasing lung injury. In addition, sPLA<sub>2</sub> 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<sub>2</sub> 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 BLYS Antagonism Portfolio**

BLYS 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 BLYS in lupus has recently been clinically validated in multiple clinical studies with other BLYS antagonists. We intend to advance the development of our BLYS targeting 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 plan to initiate a Phase 2b clinical study in lupus in the second half of 2010 after we reactivate the IND that was transferred from Amgen.

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

- dosing flexibility with both subcutaneous and intravenous routes of delivery;
- selective modulation and reduction of relevant B-cell sub-types in lupus patients;
- the ability to bind to both membrane-bound and soluble BLYS;
- 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 an *escherichia coli* production process;
- differentiated intellectual property as a peptibody circumventing existing antibody, antibody-fragment and other related patents; and
- potential safety and manufacturing advantages.

## 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)
<b>Lead Development Programs</b>				
A-002-vaespladib methyl with atorvastatin, also known as Lipitor in the United States	Phase 3 ready	Anthera (1)	<ul style="list-style-type: none"> <li>Orally administered sPLA<sub>2</sub> inhibitor</li> <li>Indicated for the prevention of secondary MACE following an acute coronary syndrome (16-week treatment)</li> </ul>	<ul style="list-style-type: none"> <li>Initiate patient enrollment in the Phase 3 VISTA-16 study after completion of our initial public offering</li> </ul>
A-623	Phase 2 ready	Anthera	<ul style="list-style-type: none"> <li>Selective peptibody antagonist of BlyS cytokine being developed for the treatment of B-cell mediated autoimmune diseases</li> <li>Indicated for systemic lupus erythematosus</li> </ul>	<ul style="list-style-type: none"> <li>FDA review of Phase 2b study protocol amendment in connection with the IND reactivation</li> <li>Initiate Phase 2b clinical study in the second half of 2010</li> </ul>
<b>Additional Programs</b>				
A-001-vaespladib sodium	Phase 2	Anthera (1)	<ul style="list-style-type: none"> <li>Intravenous sPLA<sub>2</sub> inhibitor with orphan drug and fast track status</li> <li>Indicated for prevention of acute chest syndrome in hospitalized patients with sickle cell disease</li> </ul>	<ul style="list-style-type: none"> <li>Publication of IMPACTS-2 data</li> </ul>
A-002-vaespladib methyl	Phase 2 investigator study	Anthera (1)	<ul style="list-style-type: none"> <li>Orally administered sPLA<sub>2</sub> inhibitor to reduce inflammatory markers in patients undergoing interventional cardiovascular procedures</li> </ul>	<ul style="list-style-type: none"> <li>Enrollment complete. Data publication targeted in 2010</li> </ul>

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



## A-002

A-002 is an orally administered pro-drug of A-001, which is a broad-spectrum, once-daily inhibitor of the IIa, V and X forms of the sPLA<sub>2</sub> enzyme that has demonstrated potent anti-inflammatory, lipid-lowering and lipid-modulating treatment effects in multiple clinical studies. We plan to initiate the Phase 3 VISTA-16 study to evaluate A-002 in combination with statin therapy for the short-term (16-week) treatment of acute coronary syndrome after completion of our initial public offering. We have reached agreement with the FDA on an SPA for the VISTA-16 study. An SPA provides an opportunity for the clinical study sponsor to receive feedback from the FDA regarding the adequacy of a clinical study to meet 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, a total of 1,107 patients and healthy volunteers in at least 15 clinical studies have been exposed to A-002. The administration of A-002 was generally well-tolerated in studies where patients were exposed to a maximum of 48 weeks of therapy. A-002 has been studied in combination with 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 A-002, except in Japan where Shionogi & Co., Ltd. retains rights. We originally licensed our sPLA<sub>2</sub> inhibitor portfolio, including A-002 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<sub>2</sub> 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 reductions in subsequent MACE. We believe, if our Phase 3 pivotal study is successful, that A-002 would represent the first anti-inflammatory therapeutic approved for prevention of MACE.

CRP is the most commonly used marker of inflammation. It has been independently and strongly 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 atorvastatin or placebo. 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, 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 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 over all.

#### *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 that 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<sub>2</sub> inhibition during the early phase of an acute coronary syndrome will further improve patient outcomes.

We believe that A-002 is one of only a few novel drugs in development with the potential to offer, through a unique mechanism, anti-inflammatory activity, as measured by reductions in sPLA<sub>2</sub>, CRP and IL-6, lipid-lowering, 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 A-002 can provide synergistic anti-inflammatory and lipid-lowering benefits. Additionally, we have preliminary data to suggest that A-002 may be synergistic with other cardiovascular therapeutic regimens, such as niacin.

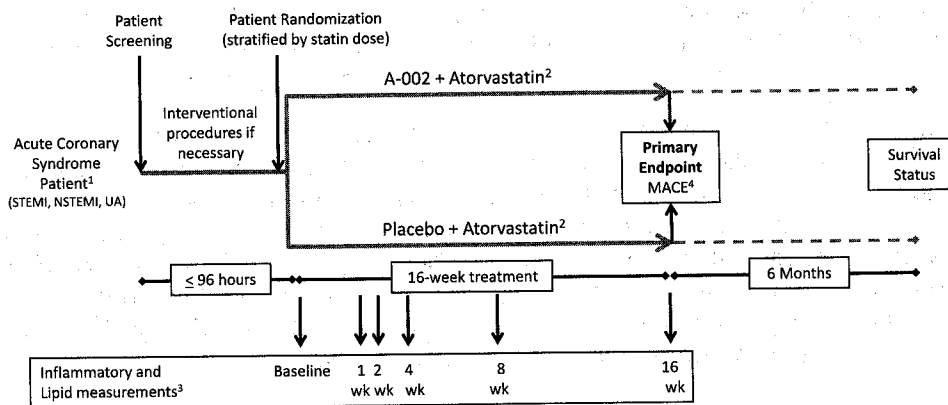
#### *Pivotal VISTA-16 Study—Acute Coronary Syndrome*

In February 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 A-002 during our end of Phase 2 meeting. As a result of that meeting and the results from our recently completed Phase 2b acute coronary syndrome study, we had been in discussions with the FDA to finalize an SPA agreement for the Phase 3 VISTA-16 study of A-002 for the acute and short-term (16-week) treatment of patients who have recently experienced an acute coronary syndrome. We have 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.

A DSMB will continually evaluate the performance of the VISTA-16 study over time to ensure patient safety and to review certain blinded laboratory data from the VISTA-16 study. After a minimum of 1,000 patients have completed the 16-week treatment in the VISTA-16 study, the DSMB will conduct a biomarker futility analysis to ensure patient levels of inflammation, as measured by sPLA<sub>2</sub>, CRP and IL-6, and lipid profiles, as measured by LDL-C,

have met pre-specified reductions from baseline at various time-points. These markers of inflammation and lipid profiles are well-established in the clinical community and pharmaceutical industry as independent predictors of future cardiovascular risk and, if positive, will provide additional validation of our previous findings from the FRANCIS Phase 2b clinical study. Other than being informed by the DSMB to continue or stop the clinical study, we will remain blinded to all clinical study data, including the biomarker results.

### Vascular Inflammation Suppression to Treat Acute Coronary Syndrome – 16 Weeks (VISTA-16)



- 1 Patients will receive physician-directed interventional and therapeutic standard of care throughout the study
- 2 A dose of atorvastatin
- 3 There will be a DSMB review of safety and selected biomarkers after a minimum of 1,000 patients have completed 16 weeks of treatment.
- 4 As per FDA Guidance, Major Adverse Coronary Events (MACE) is defined as Cardiovascular Death, Non-Fatal Myocardial Infarction, Non-Fatal Stroke, and Unstable Angina requiring urgent hospitalization

Pursuant to our discussions with the FDA, our planned multinational, randomized, double-blind, placebo-controlled Phase 3 acute coronary syndrome VISTA-16 study will enroll up to 6,500 patients in up to 15 countries and up to 500 centers. However, enrollment may be stopped anytime after a minimum of 395 adjudicated endpoint events as described in the protocol have occurred. 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 either 500 mg once-daily of A-002 or placebo in addition to a dose of atorvastatin. The dose of atorvastatin may be adjusted after eight weeks based on the subjects' LDL-C measurement. Upon completion of a planned animal combination study, the Phase 3 protocol may be amended to allow the use of simvastatin, a broadly available generic statin, as an alternative to atorvastatin. Patients will be treated with A-002 or placebo and a dose of atorvastatin for 16 weeks and survival status will be obtained for patients six months after the completion of dosing. The clinical study will 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, 48 hours and weeks one, two, four, eight and 16. Randomization will be 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 40% of the total patient population.

The primary endpoint of the VISTA-16 study will be to determine whether 16 weeks of once-daily treatment with A-002 plus a dose of atorvastatin is superior to placebo plus 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.

### *Components of VISTA-16 Primary Endpoint*

- Cardiovascular Death
- Non-Fatal Myocardial Infarction
- Non-Fatal Stroke
- Documented UA with Objective Evidence of Ischemia Requiring Hospitalization

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.

A secondary endpoint for the VISTA-16 study is to determine whether A-002 plus a dose of atorvastatin is superior to placebo plus 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<sub>2</sub> 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 A-002 in acute coronary syndrome patients with high levels of inflammation and dyslipidemia. The clinical study was designed to evaluate the safety and efficacy of A-002 when co-administered with the highest dose (80 mg) of atorvastatin. The clinical study randomized all patients to a minimum of 24 weeks of treatment with either 500 mg once-daily of A-002 or placebo in combination with 80 mg 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/m<sup>2</sup>, 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 A-002 with the highest available dose of 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.

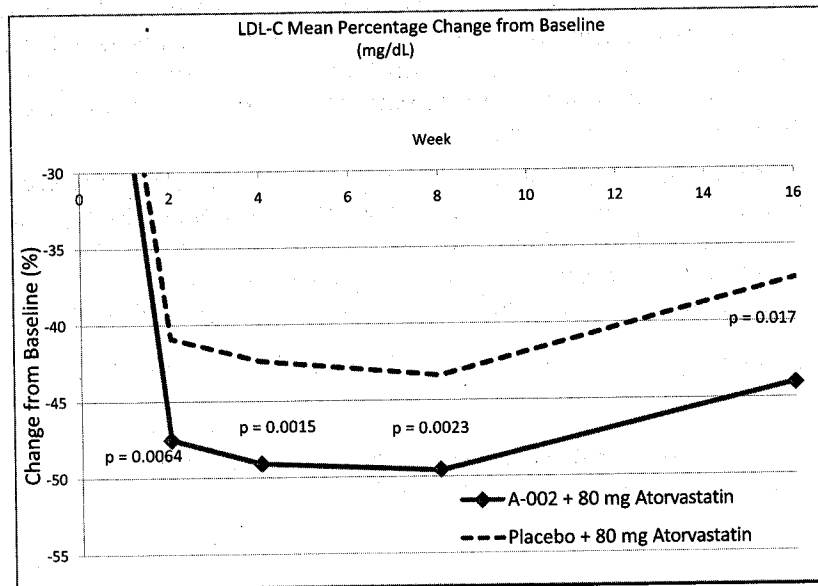
The primary efficacy endpoint evaluated the change in LDL-C after 500 patients completed eight weeks of treatment. LDL-C is the most widely recognized surrogate for predicting

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<sub>2</sub>, 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  $\geq$  60 days post the index event or non-fatal stroke).

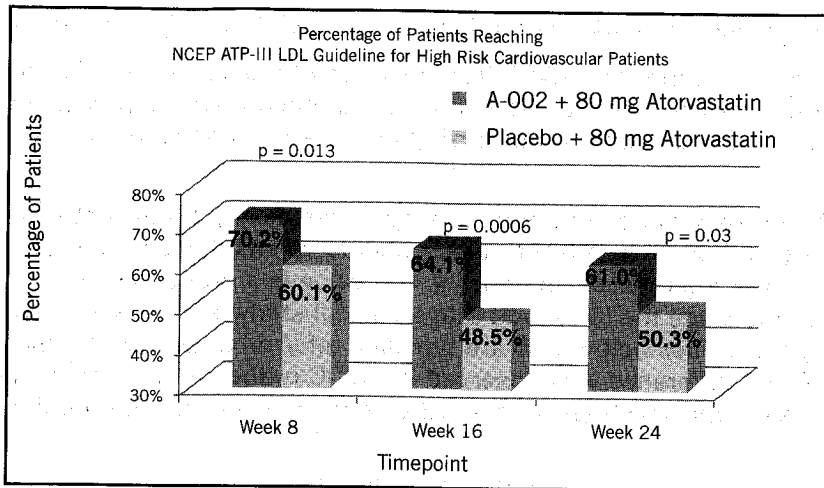
Results of the primary endpoint demonstrated a statistically significant incremental LDL-C reduction of 5.7% ( $p = 0.0023$ ) in A-002 treated patients versus those treated with 80 mg atorvastatin alone after eight weeks of therapy. A p value is a probability with a value ranging from 0 to 1, which indicates the likelihood that a clinical study is different between treatment and control groups. P values below 0.05 are typically referred to as 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.

Figure 1: Mean Percentage Change in LDL-C from Baseline



Treatment with A-002 resulted in more subjects with LDL-C levels less than 70 mg/dL than those on placebo (80 mg 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 A-002 treatment helps patients achieve their LDL-C target levels more quickly and maintain them longer than with high-dose statin (80 mg atorvastatin) therapy alone.

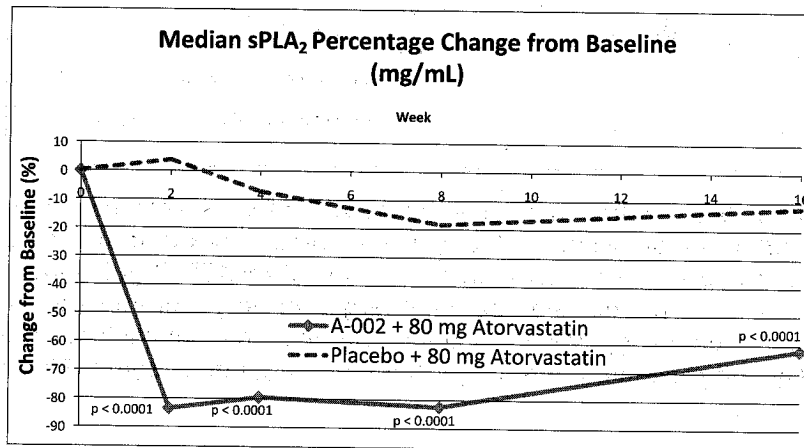
Figure 2: Percentage of Patients Achieving LDL-C < 70 mg/dL



Secondary endpoints measured effects of A-002 on sPLA<sub>2</sub>, 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.

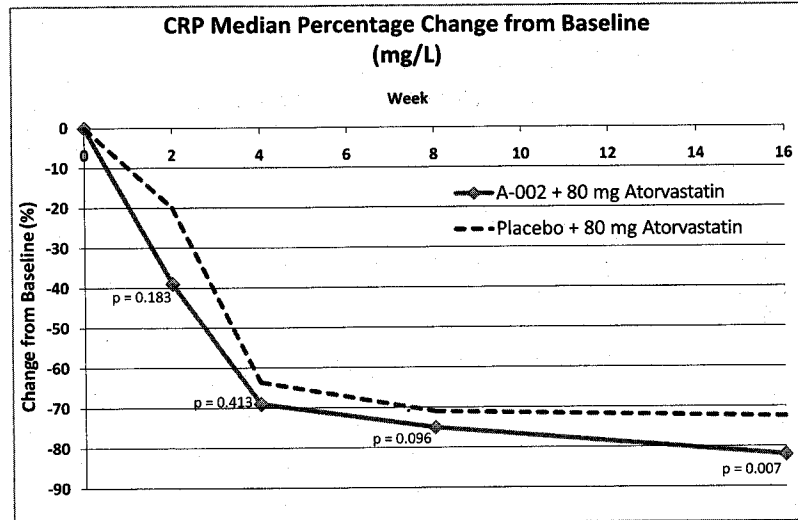
sPLA<sub>2</sub> concentration was statistically significantly reduced from the earliest time point of two weeks through the 16-week time point (p < 0.0001) as compared to high-dose statin (80 mg atorvastatin) therapy alone. While our first sPLA<sub>2</sub> measurement in this clinical study occurred at two weeks, data from previous clinical studies utilizing A-002 or A-001 demonstrated reductions in sPLA<sub>2</sub> as early as two days following treatment.

Figure 3: Median Percentage Change in sPLA<sub>2</sub> Concentration from Baseline



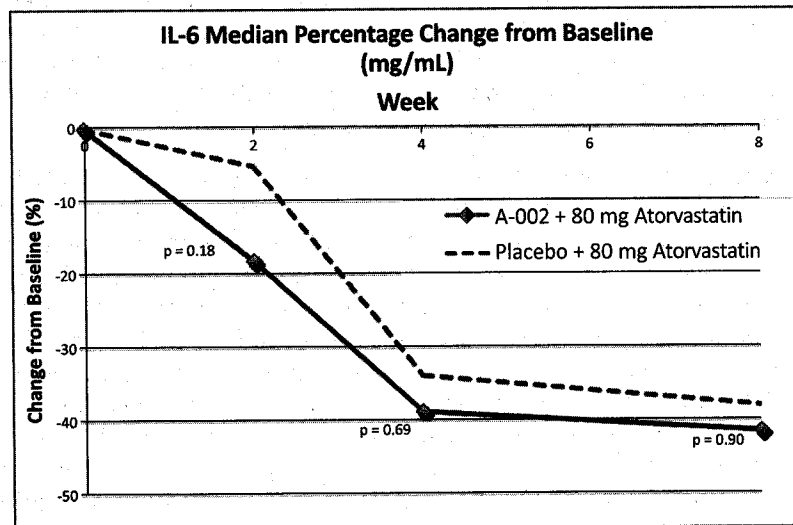
In addition, treatment-related reductions in CRP and IL-6 levels were also greater in A-002 treated patients compared to those treated with placebo at all time points in the clinical study. The percent decrease in CRP at week two was nearly two-fold greater among A-002 and 80 mg atorvastatin treated patients than those treated with placebo and 80 mg 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, A-002 treated patients had numerically reduced levels of CRP versus patients treated with placebo.

Figure 4: Median Percentage Change in CRP Concentration from Baseline



The percent decrease in IL-6 in patients on A-002 at week two was more than three times the reduction in IL-6 in patients on placebo (-18% versus -5.1%,  $p = 0.18$ ).

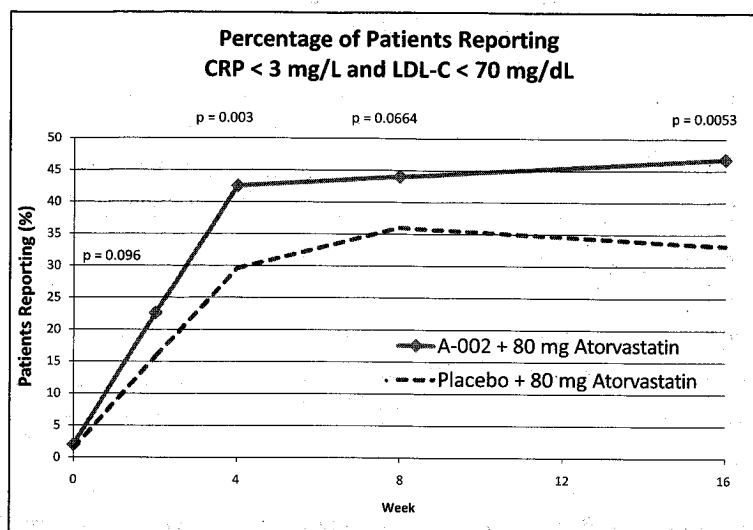
Figure 5: Median Percentage Change in IL-6 Concentration from Baseline



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 3 mg/L. As indicated in the figure below, results demonstrated that more patients treated with A-002 and 80 mg atorvastatin achieved these dual goals than those treated with placebo and 80 mg atorvastatin alone at all time points in the clinical study with statistically significantly greater percentages of patients achieving these levels at week four and week 16 ( $p = 0.0025$  and  $p = 0.005$ ).



Figure 6: Percentage of Patients Achieving Combined Targets of CRP < 3.0 mg/L and LDL-C < 70 mg/dL



We also conducted an exploratory analysis of MACE in the clinical study. At 16 weeks, there were 13 (4.2%) MACE in the A-002 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 A-002 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 will help us to design our VISTA-16 study.

Overall, A-002 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 A-002 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 A-002, 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 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.

We anticipate publishing detailed results from the FRANCIS study in 2010 at a scientific conference and in a scientific journal.

Phase 2 Stable Coronary Artery Disease Study—PLASMA (Phospholipase Levels and Serological Markers of Atherosclerosis): A-002 Twice-Daily Versus Placebo

Our Phase 2 PLASMA study was designed to confirm the safety and effect of A-002 on sPLA<sub>2</sub> 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 A-002 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 A-002 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<sub>2</sub> concentration from baseline to week eight in A-002, 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 A-002 led to statistically significant reductions in sPLA<sub>2</sub>, LDL-C and various plaque-building and pro-inflammatory forms of LDL-C. In patients receiving A-002, 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 A-002, median sPLA<sub>2</sub> concentration decreased by 86.7% from baseline to week eight, as compared to 4.8% in the placebo group ( $p < 0.0001$ ). Median sPLA<sub>2</sub> concentration decreased among the A-002 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 A-002.

A-002 was generally well-tolerated among all patients treated. In general, adverse effects were mild or moderate with no imbalance of adverse events in the A-002 groups as compared to placebo. The most common adverse effects seen in the A-002 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 A-002.

*Phase 2 Stable Coronary Artery Disease Study—PLASMA-2 (Phospholipase Levels and Serological Markers of Atherosclerosis -2): Once-Daily of A-002 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 A-002 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 A-002 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 A-002 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.

The primary endpoint of the clinical study was a comparison between once-daily doses of A-002 and placebo in changes in sPLA<sub>2</sub> 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<sub>2</sub>, were statistically significant and consistent with those generated from the first PLASMA study described above. Patients on A-002 demonstrated a 77.8% reduction in sPLA<sub>2</sub> concentration as compared to an increase of 8.3% in placebo treated patients ( $p < 0.0001$ ). Pharmacokinetic data indicated that once-daily dosing

with A-002 would be sufficient to achieve over 90% inhibition of sPLA<sub>2</sub> mass and activity over a 24-hour period.

The anti-inflammatory, lipid-lowering and lipid-modulating effects of A-002 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 A-002.

The adverse effect profile for A-002 was consistent with earlier studies and there was no imbalance of adverse events among the A-002 groups and placebo. A-002 was generally well-tolerated. The most common effects seen in the A-002 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 A-002.

Table 7: Placebo-corrected Percent Decrease from Baseline to Week Eight in Biomarkers

	sPLA <sub>2</sub>	LDL Cholesterol	Total Cholesterol	Non-HDL Cholesterol	Oxidized LDL-C
PLASMA (All doses A-002)	81.9% (p < 0.0001)	9.7% (p = 0.0035)	4.9% (p = 0.0069)	7.2% (p = 0.0009)	5.4% (p = 0.0065)
PLASMA-2 (500 mg A-002)*	86.1% (p < 0.0001)	13.9% (p = 0.0007)	9.2% (p = 0.0006)	14.2% (p = 0.0001)	7.3% (pNS)

\* Dose selected for Phase 3

*Ongoing Investigator-Sponsored Phase 2 Percutaneous Intervention Study–SPIDER-PCI (sPLA<sub>2</sub> Inhibition to Decrease Enzyme Release after PCI): A-002 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 A-002 in patients undergoing a percutaneous intervention, or PCI. The primary endpoint of this study was to determine if inhibition of sPLA<sub>2</sub> with A-002 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 are 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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> as early as 18 hours post-PCI procedure, which persisted throughout the five days of dosing (-93.0%, p < 0.001). Consistent with results from other clinical studies with A-002, 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 A-002 and A-001 in various inflammatory conditions. In total, at least 17 Phase 1 and Phase 2 clinical studies evaluated A-002 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 A-002 and A-001 with more than 1,000 healthy volunteers and subjects receiving treatment.

Throughout these studies, A-002 was generally well-tolerated.

### *Non-Clinical Studies with A-002 and A-001*

Approximately 150 preclinical pharmacology and toxicology studies have been completed with A-002 and A-001, including two-year rat and mouse carcinogenicity studies, one-year primate study and three-month rat study in combination with atorvastatin.

### **A-623**

A-623 is a selective peptibody antagonist of the BLYS 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 A-623 in 107 lupus patients have already been completed. Results from these studies demonstrated A-623 generated anti-BLYS activity and showed statistically significant reductions in B-cells among lupus patients ( $p < 0.001$ ). We believe A-623 may offer a number of potential differentiations over other BLYS antagonists as well as other novel B-cell directed therapies given subcutaneous dosing opportunities. In addition, A-623 may confer improved pharmacodynamic benefits since it binds to both membrane bound and soluble forms of BLYS as well as potential manufacturing benefits and lower cost of goods based on an *escherichia coli* production process. We expect to initiate a Phase 2b clinical study for lupus during the second half of 2010. 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 BLYS targeting molecule, A-623, a selective peptibody, to exploit its broad clinical utility in autoimmune diseases. A-623, as a peptibody directed against BLYS, was developed as an alternative to antibodies and is produced in *escherichia coli* versus antibodies that are produced in mammalian cells. In addition, A-623 offers a number of potential differentiations over other anti-BLYS compounds, as well as other novel B-cell directed therapies, including:

- both subcutaneous and intravenous dosing, which may offer dosing convenience and flexibility;
- selective modulation and reduction of B-cell subsets that are relevant in lupus patients, which may offer safety and efficacy benefits;
- ability to bind to both membrane-bound and soluble BLYS, which may confer differentiating pharmacodynamic characteristics; and

- non-glycosylated protein that is produced in *escherichia coli*, which may reduce the potential to be immunogenic, and may provide manufacturing benefits and lower cost of goods.

### *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.

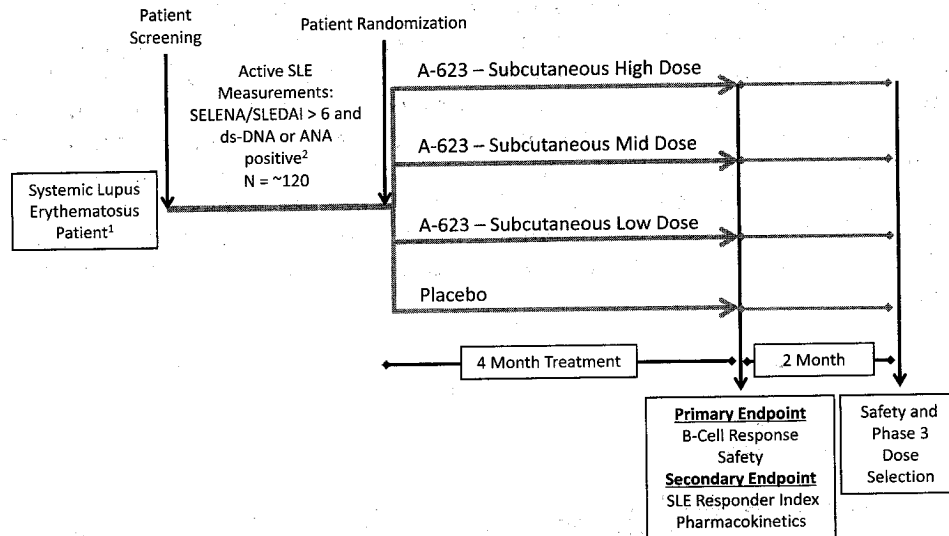
Patients with active lupus may have a broad range of symptoms related to the inflammation. Inflammation of the brain may cause seizures and other neurologic abnormalities. Inflammation of the heart may cause heart failure or sudden death. Lung inflammation causes shortness of breath. Lupus may also cause swollen joints and severe rash. In addition, LN may lead to 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 BLYS plays an important role in this disease process. In preclinical studies, transgenic mice created to over-express BLYS begin to exhibit symptoms similar to lupus. In addition, treatment of these same mice with BLYS antagonists appears to ameliorate the disease.

### *Phase 2b Clinical Study in Patients with Lupus*

Based on positive results among 107 lupus patients in our Phase 1a and 1b clinical studies, we are currently finalizing plans for a Phase 2b clinical study in lupus patients. We have completed the transfer of the IND for A-623 from Amgen and are in the process of reactivating the IND, which we expect to have active by mid-2010. In order to reactivate the IND, we will need to submit a protocol amendment and additional information necessary to support our proposed Phase 2 clinical study to the FDA, and if the FDA does not have any comments on such protocol amendment, we will be able to begin enrollment in our clinical study 30 days after the FDA receives our submission. Our current study design would enroll at least 120 patients with serologically active lupus, as defined by Safety of Estrogen in Lupus Erythematosus National Assessment, or SELENA, and Systemic Lupus Erythematosus Disease Activity Index, or SLEDAI, with scores of equal to and greater than six, and positive levels of autoantibody or positive levels of double-stranded DNA. Patients in the clinical study will be randomized to one of three subcutaneous administration treatment groups of A-623 or placebo. All patients enrolled will be treated with A-623 plus physician-directed standard of care, or placebo plus physician-directed standard of care, for at least four months, followed by a two-month safety follow-up following the treatment period.

## Phase 2B Clinical Study: Systemic Lupus Erythematosus (SLE) Subcutaneous Administration Study



- 1 Patients will receive physician-directed therapeutic standard of care throughout the study
- 2 SELENA / SLEDAI: Safety of Estrogen in Lupus Erythematosus National Assessment (SELENA) and SLE Disease Activity Index (SLEDAI)  
ds-DNA: Double Stranded DNA  
ANA: Anti-Nuclear Antibody

The primary endpoint of the study is designed to evaluate percent changes in B-cell populations, including total B-cells and memory B-cells, as well as other relevant immunological biomarkers, such as changes in double-stranded DNA, immunoglobulin G and immunoglobulin M levels. Secondary endpoints would include evaluating the clinical efficacy of A-623 compared to placebo based on a systemic lupus erythematosus responder index, as defined by 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.

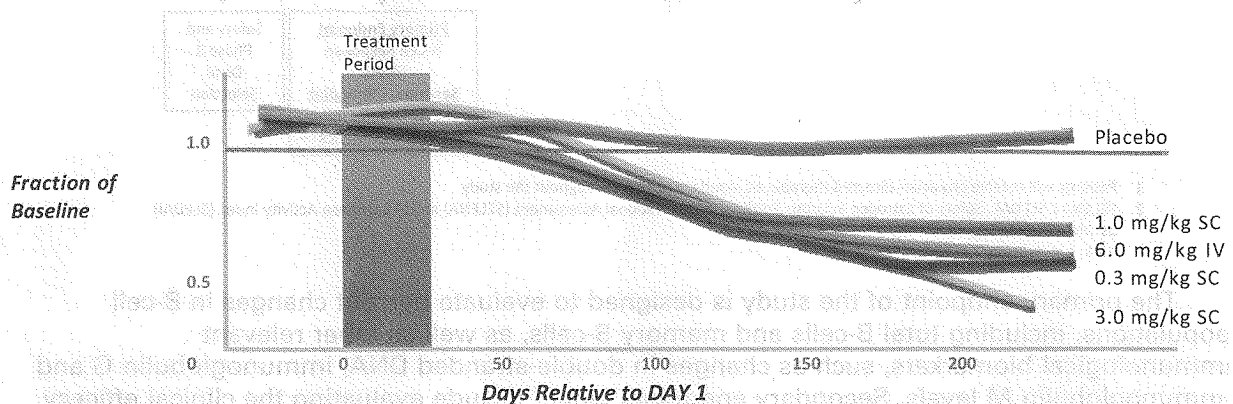
### Historical Clinical Studies

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 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 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.

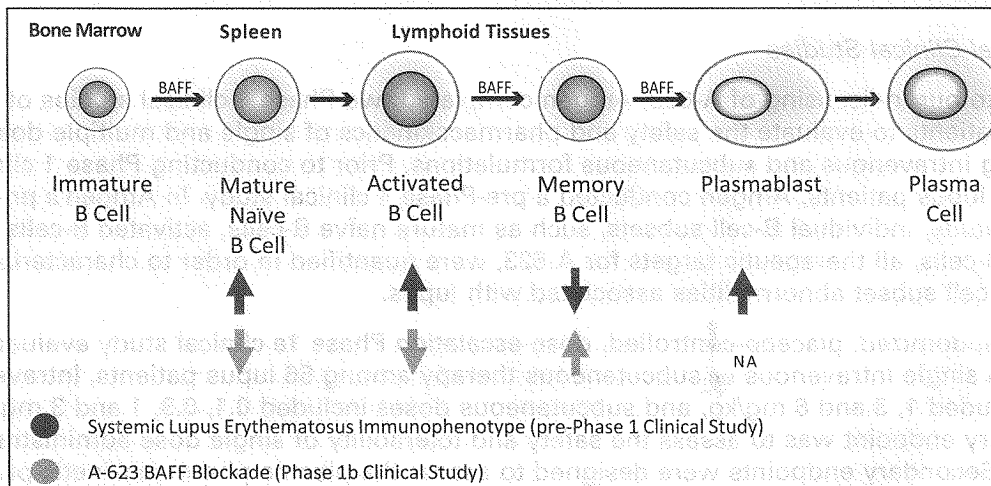
The randomized, placebo-controlled, dose-escalation Phase 1a clinical study evaluated A-623 as a single intravenous or subcutaneous therapy among 56 lupus patients. Intravenous doses included 1, 3 and 6 mg/kg, and subcutaneous doses included 0.1, 0.3, 1 and 3 mg/kg. The primary endpoint was to assess 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.

Figure 8: Total B-cell Depletion



An experimental analysis was also conducted to assess B-cell subsets in patients following multiple doses. Results demonstrated that A-623 selectively modulate certain B-cell subsets and induced trends toward normal that are consistent with findings 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. Few neutralization antibodies were seen, and all resolved in subsequent visits. Based on these results and pending further data from competitor studies, we expect to initiate 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<sub>2</sub>, including forms IIa, V and X. A-001 is currently being 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<sub>2</sub> 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 associated with sickle cell disease 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<sub>2</sub> 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<sub>2</sub> in this patient population. Patients with acute chest syndrome associated with sickle cell disease can exhibit levels of sPLA<sub>2</sub> that can be 100 times greater than normal. We believe that early intervention with A-001 to inhibit sPLA<sub>2</sub> 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.

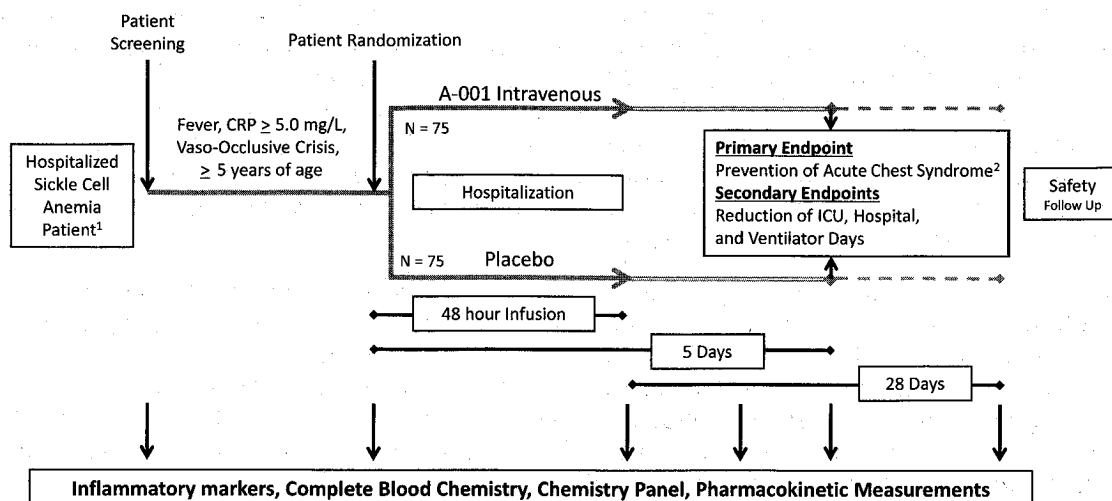
The disease is characterized by structurally altered red blood cells that assume an abnormal shape, similar to a sickle, and produce an altered form of hemoglobin. These altered red blood cells have a shortened life-cycle, become stiff and have difficulty passing through the body's small blood vessels. 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 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



- 1 Patients will receive physician-directed therapeutic standard of care throughout the study
- 2 Efficacy will be determined as "Freedom from acute chest syndrome" by both physician assessment and chest x-ray examination

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, vaso-occlusive crisis, and  $\text{CRP} \geq 5.0$  mg/L 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, fever and serum sPLA<sub>2</sub> 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<sub>2</sub>, 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 30<sup>th</sup> patient completed treatment to examine safety and adjust dosing schedules. The interim data was balanced between two dosing arms of 30  $\mu\text{g}/\text{kg}/\text{hr}$  (n = 11) and 55  $\mu\text{g}/\text{kg}/\text{hr}$  (n = 6). Interim results indicated serum levels of A-001 when dosed at 55  $\mu\text{g}/\text{kg}/\text{hr}$  reduced sPLA<sub>2</sub> 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<sub>2</sub> 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 suggest A-001 can suppress sPLA<sub>2</sub> at levels that may prevent the complication of acute chest syndrome associated with sickle cell disease.

Table 9: Reductions of sPLA<sub>2</sub> 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<sub>2</sub> suppression and incidence of acute chest syndrome.

48-Hour sPLA <sub>2</sub> Activity as a Percentage of Baseline	0.0% < 25.0%	≥ 25% < 50%	≥ 50% < 75%	≥ 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 A-002 through Phase 3.*

Inflammatory processes and lipid abnormalities are central to the onset of acute coronary syndrome and the development of CAD. A-002 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 A-002 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 A-002 in chronic indications such as CAD.

#### *Advancing clinical development of A-623.*

We intend to advance the development of A-623 to exploit the broad potential clinical utility of BLYS antagonism. We plan to internally develop this compound beginning with a Phase 2b clinical study in lupus as resources permit. 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 BLYS antagonism, including securing corporate partners whose capabilities complement ours.

We are also actively pursuing a partnership with major pharmaceutical companies to develop and commercialize A-623. We believe that a partnership could enable us to obtain funding for the further development of A-623 and to accelerate its clinical, manufacturing and commercial development with collaborators whose capabilities complement ours. We are seeking to structure a partnership that allows us to retain significant control over the development and commercialization of A-623 in the United States, and to retain economic interests in regions outside of the United States. Given the recent positive results of a BLYS-specific antagonist in multiple large, late-stage clinical studies, we believe that A-623 could be an attractive product candidate for pharmaceutical companies interested in exploiting opportunities in autoimmune diseases directed at lupus, as well as to other B-cell related autoimmune diseases.

In the future, if additional funds are available, we may develop A-001, an intravenous sPLA<sub>2</sub> inhibitor for prevention of acute chest syndrome associated with sickle cell disease, because we identified that elevations in sPLA<sub>2</sub> 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.

*Leveraging our sPLA<sub>2</sub> expertise to develop products for additional disease indications.*

We believe that we have developed a leadership position in the field of sPLA<sub>2</sub> inhibition. Beyond our acute coronary syndrome and acute chest syndrome program, we believe that sPLA<sub>2</sub> 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<sub>2</sub> expertise to develop novel therapeutics for a number of chronic diseases. For example, sPLA<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> product candidates we are currently developing, if approved, will face intense competition, either as monotherapies or in combination therapies. Although there are no sPLA<sub>2</sub> 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<sub>2</sub> in Acute Coronary Syndrome*

Our lead product candidate, A-002, 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 A-002 for the treatment of acute coronary syndrome patients, if approved, may compete with the following anti-inflammatory therapeutics in development.

Compound	Stage	Company	Indications	Notes
Darapladib	Phase 3	GlaxoSmithKline plc	Acute coronary syndrome	<ul style="list-style-type: none"> <li>• Lp-PLA<sub>2</sub> inhibitor</li> <li>• Collaboration with Human Genome Sciences, Inc.</li> <li>• Various back-up compounds</li> </ul>
VIA-2291	Phase 2	Via Pharmaceuticals, Inc.	Acute coronary syndrome or atherosclerosis	<ul style="list-style-type: none"> <li>• 5-lipoxygenase inhibitor</li> <li>• Discussions on-going with FDA</li> </ul>
E-5555	Phase 2	Eisai Inc.	Acute coronary syndrome or atherosclerosis	<ul style="list-style-type: none"> <li>• 600 patient study completed October 2009</li> <li>• Evaluating biomarkers and events</li> </ul>

#### *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<sub>2</sub> inhibitor currently being evaluated in Phase 3 clinical studies. If approved, these products or others in development may compete directly with A-002.

#### *Approved Categories of Drugs*

**Statins** – Treatment with A-002 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 A-002.

**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. A-002 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, A-002 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

No new therapies have been approved for lupus in the last 50 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.

Recently, several new biological agents under development have targeted BLYS for the treatment of lupus. These product candidates include Benlysta (bellimumab) from Human Genome Sciences, Inc., atacicept, or TACI-Ig, from ZymoGenetics Inc. and what we believe to be more non-specific B-cell depleting agents such as Rituxan from Genentech, Inc. and epratuzumab from Immunomedics, Inc. 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 bind to both membrane-bound and soluble BLYS; 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 safety and manufacturing advantages and lower cost of goods based on an *escherichia coli* production process.

Compound	Stage	Company	Indications	Notes
Benlysta	Phase 3	Human Genome Sciences, Inc.	Lupus	<ul style="list-style-type: none"> <li>• Monoclonal antibody against BLYS, an agent that demonstrated partial reduction in B-cells</li> <li>• Positive results reported in first of two Phase 3 clinical studies</li> </ul>
Atacicept	Phase 3	ZymoGenetics Inc.	Lupus, LN	<ul style="list-style-type: none"> <li>• Fusion protein against BLYS and APRIL; Phase 3 clinical study in LN stopped due to safety issues</li> <li>• Phase 3 clinical study in lupus on-going</li> </ul>
Epratuzumab	Phase 2b	Immunomedics, Inc.	Lupus, Non-Hodgkin's Lymphoma	<ul style="list-style-type: none"> <li>• Humanized antibody against CD-22, an agent that specifically targets B-cells and leads to partial depletion of peripheral B-cells</li> <li>• Positive Phase 2b clinical study results reported</li> </ul>
Ocrelizumab	Phase 3	F. Hoffman - La Roche Ltd./Biogen Idec Inc.	LN	<ul style="list-style-type: none"> <li>• Monoclonal antibody against CD-20 that leads to rapid and profound depletion of circulating B-cells</li> <li>• Phase 3 clinical study in lupus halted</li> </ul>
Lupuzor	Phase 2b	Cephalon, Inc./ImmuPharma PLC	Lupus	<ul style="list-style-type: none"> <li>• Modulates CD4 T cells</li> <li>• 125 patient Phase 2b clinical study stopped early</li> </ul>

### *sPLA<sub>2</sub> 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
- operate our business without infringing the patents and proprietary rights of third parties.

### *A-002 and A-001*

As of the date of this annual report, our licensed A-002 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;
- 17 non-EP foreign patents in Argentina, Australia, Brazil, Canada, China, Finland, Malaysia, Mexico, the Philippines, South Korea, Taiwan and Turkey; and
- Five pending non-EP foreign patent applications in Brazil, Canada, China, India 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 A-002 and A-001 compositions of matter and to various methods of making and using A-002 and A-001, including methods of treating various inflammatory conditions. The issued U.S. patents are currently scheduled to expire between 2014 and 2021.

As of the date of this annual report, our internally developed A-002 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 16 other countries (Australia, Brazil, Canada, China, 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-002 and A-001 compositions of matter and methods of treating various cardiovascular indications.

#### A-003

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

- Two licensed U.S. patents;
- One licensed pending U.S. non-provisional patent application (also listed above as covering A-002 and A-001);
- Five licensed EP patents (two also listed above as covering A-002 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;
- One licensed pending EP patent application (also listed above as covering A-002 and A-001);
- Eleven licensed non-EP foreign patents (four also listed above as covering A-002 and A-001) in Argentina, Australia, Canada, China, Mexico, South Korea and Taiwan; and
- Five licensed pending non-EP foreign patent applications (three also listed above as covering A-002 and A-001) in Argentina, Brazil, Canada, China and India.

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 annual report, our internally developed A-003 patent portfolio includes:

- Four U.S. non-provisional patent applications (all also listed above as covering A-002 and A-001);
- Two pending U.S. provisional patent applications (both also listed above as covering A-002 and A-001);
- Two pending PCT patent applications (both also listed above as covering A-002 and A-001); and

- National phase applications in the European Patent Office, the Eurasian Patent Organization and 16 other countries (Australia, Brazil, Canada, China, 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<sub>2</sub> Compounds*

As of the date of this annual report, our new sPLA<sub>2</sub> compound patent portfolio includes over 30 licensed U.S. patents and three EP patents not listed above as covering A-001, A-002 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<sub>2</sub> second generation compounds, as well as methods of making and using these new sPLA<sub>2</sub> compounds. The issued U.S. patents are currently scheduled to expire between 2013 and 2024.

#### *A-623*

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

- One U.S. patent;
- 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;
- One pending EP patent application;
- Eight non-EP foreign patents in Australia, China, Eurasia (validated in all nine Eurasian countries), New Zealand, Singapore, South Korea and South Africa; and
- 17 pending non-EP foreign patent applications in Brazil, Bulgaria, Canada, China, the Czech Republic, Estonia, Hong Kong, Hungary, Israel, Japan, Mexico, Norway, the Philippines, Poland, Serbia/Yugoslavia and Slovakia.

We hold exclusive worldwide licenses from Amgen to all of these patents and patent applications.

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 A-002, A-623, A-001, A-003 or one or more new sPLA<sub>2</sub> 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.”

## **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<sub>2</sub> 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 two 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<sub>2</sub> inhibitors, (ii) develop, make, have made, use, import, offer for sale and sell licensed compounds and pharmaceutical formulations thereof, including A-002, A-001, A-003 and other sPLA<sub>2</sub> 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 took over all prosecution and maintenance of core patents prosecuted and maintained by Eli Lilly prior to the agreement. All core patents prosecuted and maintained 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. In addition, we are required to make various milestone payments, including payment upon initiation of the first Phase 3 clinical study for a particular product. We amended the milestone payment terms with each of Eli Lilly and Shionogi & Co., Ltd. to no later than 12 months from the enrollment of the first patient in a Phase 3 clinical study for A-002. In consideration for the extension, the milestone payments increased to \$1.75 million to each party. The \$1.75 million milestone payment to Eli Lilly will be paid in the form of shares of our common stock issued at the price per share at which shares are sold to the public in our initial public offering, minus any per-share underwriting discounts, commissions or fees, which would result in the issuance of 265,957 shares, based on the initial

public offering price of \$7.00 per share. We are obligated to issue such shares to Eli Lilly within 10 business days after the closing of this offering. The \$1.75 million milestone payment to Shionogi & Co., Ltd. will be paid in the form of shares of our common stock issued at the price per share at which shares are sold to the public in our initial public offering, minus any per-share underwriting discounts, commissions or fees, which would result in the issuance of 265,957 shares, based on the initial public offering price of \$7.00 per share. The shares will be issued within 10 business days after the closing of our initial public offering. We are also required 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 A-002, we are required to pay up to \$3.5 million (as discussed above) upon achievement of certain clinical development milestones and 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, pursuant to which we obtained an exclusive worldwide license to certain technology and compounds relating to A-623.

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 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.

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.

The license agreement provided for a first installment fee of \$3.0 million and a second installment fee of \$3.0 million upon the earlier of our termination of the agreement or

February 1, 2009. We have paid all of these up-front fees. 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, 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.

On October 16, 2009, we executed an amendment to the license agreement to amend certain terms and conditions, including the terms and conditions on which technology transfer activities, support and assistance would be provided to us and forgiveness of accrued interest on an unpaid license fee, which has since been paid in full.

### **Manufacturing and Supply**

We currently rely on contract manufacturers to produce drug substances and drug products required for our clinical studies under current good manufacturing practices, or 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. We currently rely on a single manufacturer for the preclinical and clinical supplies of each of our product candidates and do not currently have agreements in place for redundant supply or a second source for any of our product candidates. We believe that there are other manufacturers and alternate sources of supply that can satisfy our clinical study requirements without significant delay or material additional costs should our current manufacturer fail to meet our needs. However, 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 only, 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 A-002 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 A-002, 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 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 also may be imposed by the FDA at any time before or during 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 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 IND for FDA 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.

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 also is 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 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 product development and 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 term 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 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 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.

Pediatric exclusivity is another type of exclusivity in the United States. Pediatric exclusivity, if granted, provides 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 also could 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 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.

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 A-002 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.

### *Reimbursement*

Sales of pharmaceutical products depend significantly on the availability of third-party reimbursement. Third-party payors include government health administrative authorities, 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.

The passage of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the MMA, imposes new requirements for the distribution and pricing of prescription drugs for Medicare beneficiaries, and includes 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.

In addition, Congress is considering a number of legislative and regulatory proposals which are intended to reduce or limit the growth of health care costs and which could significantly transform the market for pharmaceuticals and biological products. Legislative and regulatory proposals under consideration include health care reform initiatives, such as private health insurance expansion or the creation of competing public health insurance plans. Further, Congress is considering passing legislation that would allow Medicare to negotiate directly with pharmaceutical companies. 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. 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. 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 January 31, 2010, we had 14 employees, seven of which 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.

### **Property and Facilities**

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 will expire on September 30, 2010. 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.

### **Legal Proceedings**

We are not currently subject to any material legal proceedings.

## **SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This annual report contains forward-looking statements. 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," "contemplates," "believes," "estimates," "predicts," "assume," "intend," "potential," "continue" or other similar words or the negative of these terms. These statements 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 and elsewhere in this annual 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 annual report include, but are not limited to, statements about:

- our expectations related to the use of proceeds from our initial public offering;
- 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 annual report.

The forward-looking statements made in this annual 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 annual report 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.

## SELECTED FINANCIAL DATA

The following selected financial data should be read together with our financial statements and the related notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations" appearing elsewhere in this annual report. The selected financial data in this section is not intended to replace our financial statements and the related notes. Our historical results are not necessarily indicative of the results to be expected for any future period.

We were incorporated on September 9, 2004. The following statement of operations data, including share data, for the years ended December 31, 2007, 2008 and 2009 and for the cumulative period from September 9, 2004 to December 31, 2009, and the balance sheet data as of December 31, 2008 and 2009 have been derived from our audited financial statements and related notes appearing elsewhere in this annual report. The statement of operations data for the years ended December 31, 2005 and 2006 and the balance sheet data as of December 31, 2005, 2006 and 2007 have been derived from our audited financial statements not included in this annual report. The operating results for any period are not necessarily indicative of financial results that may be expected for any future period.

The pro forma basic and diluted net loss per share and pro forma weighted-average number of shares gives effect to the conversion of all our outstanding preferred stock into shares of common stock as if the conversion occurred on the date of issuance.

	Years Ended December 31,					Period from September 9, 2004 (Date of Inception) to December 31, 2009
	2005	2006	2007	2008	2009	
<b>Statement of Operations Data:</b>						
Operating expenses						
Research and development	\$ 345,208	\$ 7,759,106	\$ 23,921,932	\$ 10,882,322	\$ 8,415,414	\$ 51,323,981
General and administrative	205,527	822,732	2,468,607	2,980,170	3,425,690	9,917,567
Total operating expenses	<u>(550,735)</u>	<u>(8,581,838)</u>	<u>(26,390,539)</u>	<u>(13,862,492)</u>	<u>(11,841,104)</u>	<u>(61,241,548)</u>
<b>Other Income (Expense)</b>						
Interest and other income	11,148	109,987	696,962	178,129	23,534	1,019,760
Interest and other expense	—	(17,395)	—	(296,303)	(385,922)	(699,620)
Beneficial conversion feature	—	(190,000)	—	(4,118,544)	—	(4,308,544)
Total other income (expense)	<u>11,148</u>	<u>(97,408)</u>	<u>696,962</u>	<u>(4,236,718)</u>	<u>(362,388)</u>	<u>(3,988,404)</u>
Net loss	<u>\$(539,587)</u>	<u>\$(8,679,246)</u>	<u>\$(25,693,577)</u>	<u>\$(18,099,210)</u>	<u>\$(12,203,492)</u>	<u>\$(65,229,952)</u>
Net loss per share—basic and diluted (1)	<u>\$ (1.38)</u>	<u>\$ (13.82)</u>	<u>\$ (28.15)</u>	<u>\$ (13.47)</u>	<u>\$ (8.06)</u>	
Weighted-average number of shares used in per share calculation—basic and diluted (2)	<u>390,279</u>	<u>627,904</u>	<u>912,668</u>	<u>1,343,420</u>	<u>1,513,598</u>	
Pro forma net loss per share—basic and diluted (1)					<u>\$ (1.24)</u>	
Pro forma weighted-average number of shares used in per share calculation—basic and diluted (2)					<u>9,854,380</u>	

- (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, 2005, 2006, 2007, 2008 and 2009 do not include weighted-average shares of unvested stock of 478,799, 297,596, 261,649, 230,028 and 110,079, respectively. These shares are subject to a risk of repurchase by us until such shares are vested. See Note 8 to our financial statements for more information.

	<b>As of December 31,</b>				
	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>Balance Sheet Data:</b>					
Cash and cash equivalents . . . . .	\$ 381,964	\$20,781,916	\$ 152,744	\$ 7,895,113	\$ 3,803,384
Short-term investments . . . . .	—	—	5,825,000	—	—
Working capital . . . . .	232,136	19,629,639	(2,907,995)	(495,836)	(14,344,436)
Total assets . . . . .	404,091	20,856,892	6,193,213	8,034,154	5,888,789
Indebtedness . . . . .	150,790	1,174,621	12,058,184	8,494,417	18,167,645
Convertible preferred stock . . . . .	804,951	28,892,004	28,892,004	52,123,859	52,123,859
Deficit accumulated during the development stage . . . . .	(554,427)	(9,233,673)	(34,927,250)	(53,026,460)	(65,229,952)
Total stockholders' (deficit) equity . . . . .	253,301	19,682,271	(5,864,971)	(460,263)	(12,278,856)



## 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 appearing elsewhere in this annual report. 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 discussed elsewhere in this annual 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 ready clinical program, A-002, and two Phase 2 clinical programs, A-623 and A-001. Two of our product candidates, A-002 and A-001, are designed to inhibit a novel enzyme target known as secretory phospholipase A<sub>2</sub>, or sPLA<sub>2</sub>. Elevated levels of sPLA<sub>2</sub> 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 ready product candidate, A-623, targets elevated levels of B-lymphocyte stimulator, 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, 2009, we had an accumulated deficit of approximately \$65.2 million. As of the date of this annual report, 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. In their report on our financial statements for the year ended December 31, 2009, our independent auditors included an explanatory paragraph regarding concerns about our ability to continue as a going concern. Our financial statements contain additional note disclosures describing the circumstances that led to this disclosure.

To date, we have funded our operations through private placements of preferred stock and convertible debt, raising an aggregate of approximately \$58.6 million through those private placements. 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 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 anticipated Phase 3 clinical study named VISTA-16 for A-002, 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, consulting fees and travel.

The following table shows our total research and development expenses for the years ended December 31, 2007, 2008 and 2009, and for the period from September 9, 2004 (Date of Inception) through December 31, 2009:

	Years Ended December 31,			For the Period
	2007	2008	2009	September 9, 2004 (Date of Inception) to December 31, 2009
Allocated costs:				
A-001.....	\$ 2,302,454	\$ 456,633	\$ 192,979	\$ 6,520,046
A-002.....	12,053,943	7,370,850	5,535,529	27,860,645
A-623.....	6,004,667 (1)	100,851	34,179	6,143,417 (1)
Unallocated costs.....	<u>3,560,868</u>	<u>2,953,988</u>	<u>2,652,727</u>	<u>10,799,873</u>
Total development.....	<u>\$23,921,932</u>	<u>\$10,882,322</u>	<u>\$8,415,414</u>	<u>\$51,323,981</u>

(1) 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 expect to initiate the VISTA-16 study of A-002 for the treatment of patients experiencing acute coronary syndrome after completion of our initial public offering, which we expect to fund with proceeds we raised from existing investors and from the proceeds raised in our initial public offering.

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;
- 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. After completion of our initial public offering, we anticipate incurring a significant increase in general and administrative expenses as we operate as a public company. These increases will likely include increased costs for insurance, costs related to the hiring of additional personnel and payment to outside consultants, lawyers and accountants. We also expect to incur

significant costs to comply 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 Note 2 to our financial statements included at the end of this annual report, 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 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 estimate the fair value of our share-based payment awards on the date of grant using an option-pricing model.

We recognized employee stock-based compensation expense of \$74,861 in 2007, \$143,406 in 2008, and \$253,964 in 2009, respectively. As of December 31, 2009, we had \$456,288 in total unrecognized compensation cost related to non-vested employee stock-based compensation arrangements, which we expect to recognize over a weighted-average period of approximately 2.25 years. The intrinsic value of all outstanding vested and non-vested stock-based compensation arrangements, based on the initial public offering price of \$7.00 per share, is \$8.0 million, based on 1,323,776 shares of our common stock issuable upon exercise of stock-based compensation arrangements outstanding at December 31, 2009 at a weighted-average exercise price of \$0.92 per share.

We calculate the fair value of stock-based compensation awards using the Black-Scholes option-pricing model. For the years ended December 31, 2008 and 2009, the weighted-average assumptions used in the Black-Scholes model were 6.25 years for the expected terms, 81% and 74% for the expected volatility, 3.08% and 2.10% for the risk free rate and 0.0% for dividend yield, respectively. Expense amounts for future awards for any particular quarterly or annual period could be affected by changes in our assumptions. The weighted-average expected option terms for 2008 and 2009 reflect the application of the simplified method set out in FASB ASC 718-10. The simplified method defines the life as the average of the contractual term of the stock-based compensation award and the weighted-average vesting period for all tranches. Estimated volatility for fiscal 2008 and 2009 also reflects the application of interpretive guidance provided in FASB ASC 718-10 and, accordingly, incorporates historical volatility of similar public entities.

The exercise price of options to purchase our common stock granted to our employees, directors and consultants was the fair value of our common stock on the date of grant. The fair value of our common stock was determined by our board of directors. Prior to our initial public offering, there has been no public market for our common stock. Our board of directors determined the fair value of our common stock based on several factors, including:

- the rights, preferences and privileges of our preferred stock relative to our common stock;
- our performance and stage of development;
- the likelihood of achieving a liquidity event for the shares of our common stock underlying these stock options, such as an initial public offering or sale of our company, given prevailing market conditions;
- the trading value of common stock of public companies comparable to our company;
- the sale prices of comparable acquisition transactions of public companies comparable to ours; and
- the available data resulting from our clinical studies and development to date.

In considering the rights, preferences and privileges of our preferred stock relative to our common stock, our board of directors considered the following rights, preferences and privileges of our Series B-1 and Series B-2 preferred stock:

- a senior liquidation preference of \$7.28 per share in the event of any sale of our company or similar liquidity event;
- a right to participate alongside our common stock in the event of any sale or similar liquidity event with a 3.5x cap on such participation;
- a senior non-cumulative dividend of 7.0% of the original issue price;
- protection against dilutive issuances of new shares;
- a right to convert each share of preferred stock into common stock;
- a right to receive quarterly unaudited and annual audited financial statements, to inspect our books and records and to meet with our management team;
- a right to vote with other holders of preferred and common stock to elect members of our board of directors; and
- a right to vote separately on issues such as changes in capital structure, interested party transactions, mergers, sales and acquisitions.

Specifically, with respect to liquidation preference and participation features, each share of Series B-1 and Series B-2 preferred stock has a liquidation preference equal to the price per share at which such share was sold, and in addition, participates with the common stock on proceeds available for distribution in a buy-out or sale of our company until such preferred shares receive three-and-one-half times the original price per share. As a result of these participation rights and preferences, the preferred shareholders would receive substantially more of our company's value in the event of the dissolution or liquidation of our company, such as in a buy-out or sale of our company, or on the payment of the dividends. For example, on a buy-out or sale of our company, the Series B-1 and B-2 shareholders are each entitled to receive liquidation preferences of \$7.28 per share, before then participating equally with the common shareholders in the remaining value of our company until they have received \$25.46 per share.

In addition, we obtained the reports of independent valuation firms with respect to their estimates of the fair values of our common stock. We obtained reports of the fair value of our common stock as of October 31, 2006 on December 4, 2006, as of December 31, 2007 on February 12, 2008, and as of October 15, 2008 on October 24, 2008. In estimating the fair value of our common stock, the independent firms used the income approach. The income approach is an estimate of the present value of the future monetary benefits expected to flow to the owners of a business. It requires a projection of the cash flows that the business expected to generate over a forecast period and an estimate of the present value of cash flows beyond that period, which is referred to as residual value. These cash flows are converted to present value by means of discounting, using a rate of return that accounts for the time value of money and the appropriate degree of risks inherent in the business. After calculation of the company's enterprise value using this approach, the value of a share of common stock is then discounted for lack of marketability, or the inability to readily sell shares, which increases the owner's exposure to changing market conditions and increases the risk of ownership.

In its report as of December 31, 2007, the independent valuation firm estimated our enterprise value using discounted cash flows, a terminal value based on comparable publicly traded company revenue multiples and a risk-adjusted discount rate of 39.1%. Our enterprise value was estimated to be approximately \$34.0 million. This enterprise value was then allocated among the various classes of our securities, including preferred stock, common stock and options to purchase common stock using the Black-Scholes option-pricing model, which yielded an estimated value per share of our common stock of \$1.76, which was in turn reduced by a

discount for lack of marketability of 24.0% using a protective put analysis and an estimated time to liquidity of two years, which resulted in an estimated value per share of \$1.34.

In its report as of October 15, 2008, the independent valuation firm estimated our enterprise value using discounted cash flows, a terminal value based on comparable publicly traded company revenue multiples and a risk-adjusted discount rate of 32.6%. Our enterprise value was estimated to be approximately \$60.6 million. This enterprise value was then allocated among the various classes of our securities, including preferred stock, common stock and options to purchase common stock using the Black-Scholes option-pricing model, which yielded an estimated value per share of our common stock of \$2.02, which was in turn reduced by a discount for lack of marketability of 25.0% using a protective put analysis and an estimated time to liquidity of two years, which resulted in an estimated value per share of \$1.51.

On October 13, 2009, our board of directors determined an estimated fair value per share of \$7.70 for our common stock. Our board of directors examined the enterprise values of 10 peer companies in the life sciences industry and used the mean enterprise value to approximate our anticipated enterprise value upon completion of a public offering. Our board of directors used the mean enterprise value, rather than a multiple of earnings or revenue, since we have no earnings or revenue, nor do any of the companies in the peer group. We selected the peer group based on the following criteria: publicly traded drug development companies that have one or more pharmaceutical compounds targeted at patient markets of approximately the same size as the target market for our compounds in Phase 2 or Phase 3 clinical studies and no compounds yet approved for general use. To estimate our enterprise value, our board of directors discounted the enterprise value by 15% to reflect a lack of marketability. Our board of directors then further discounted the estimated enterprise value by an additional 25% to reflect the time our board of directors estimated would be necessary to complete our initial public offering as well as the risk that such offering will not be completed. 100% of this enterprise value was then allocated to our common stock, assuming the conversion of all shares of preferred stock outstanding and the exercise of all outstanding options and warrants, which yielded an estimated fair value of our common stock of \$7.70 per share. In determining the valuation of our common stock, our board of directors did not take into account (i) the expected timing of commercialization of our A-002 product candidate, other than 2012 being the earliest possible time of commercialization, which is already reflected in the discount for lack of marketability and liquidity, or (ii) any future revenues and operating profits expected to be generated from sales of A-002.

Based on the factors listed above, our board of directors determined the fair value of our common stock for option grants made in October 2009 to be \$7.70 per share, for option grants made in February and April 2009 to be \$1.51 per share, and for option grants made in 2008 to be \$1.34 per share. The following table summarizes by grant date the number of shares of common stock subject to options granted in 2008 and 2009 through the date of this annual report and the associated per-share exercise price. The exercise prices were set by our board of directors at prices believed to equal the fair value of our common stock at each of the grant dates.

<u>Grant Date</u>	<u>Number of Options</u>	<u>Per Share Exercise Price</u>
2/21/2008.....	287,086	\$1.34
6/26/2008.....	40,887	\$1.34
2/18/2009.....	367,395	\$1.51
4/15/2009.....	26,281	\$1.51
10/13/2009.....	11,682	\$7.70

The estimated fair value common stock from June 2008 to February 2009 increased from \$1.34 per share to \$1.51 per share. The change in estimated fair value is primarily the result of an increase in the estimated enterprise value of the company from \$34.0 million to \$60.6 million, and reflects the following positive factors:

- successful completion of enrollment of our Phase 2b FRANCIS study; and
- the conclusion in February 2009 of a DSMB evaluation that our IMPACTS study was well-tolerated and should continue.

The positive factors set forth above were partially offset by:

- a sharp deterioration in financial markets with accompanying decrease in market capitalization of companies comparable to ours;
- increased difficulty in raising equity financing with accompanying financing uncertainty; and
- increased risk of failure to achieve an initial public offering, sale of the company or other similar liquidity event.

While no single factor listed above was specifically quantified or weighted greater than another in estimating the company's enterprise value, each was taken into account in calculating the discount rate for the discounted cash flow analysis, estimating the time to liquidity and the expense that would be required to achieve liquidity.

The estimated fair value of our common stock from April 2009 to October 2009 increased from \$1.51 per share to \$7.70 per share. The change in estimated fair value primarily reflects the following factors:

- we successfully achieved the primary endpoint of our Phase 2b FRANCIS study in July 2009;
- an analysis of secondary endpoints from FRANCIS revealed generally favorable efficacy trends in August 2009;
- a successful initial public offering of a company in our industry; and
- progress towards our initial public offering.

While no single factor listed above was specifically quantified or weighted greater than another in estimating the company's enterprise value, each was taken into account in estimating the time to liquidity and the expense that would be required to achieve liquidity.

As a result of the analysis conducted by us and the underwriters, the initial public offering price of our common stock is \$7.00 per share. The difference between the estimated fair value of our common stock of \$7.70 per share in October 2009 and the initial public offering price takes into account several factors considered by our board of directors and the underwriters:

- an analysis of the typical valuation ranges seen in initial public offerings for companies in our industry with similar market capitalization for the last five years;
- a review of current market conditions and the results of operations, competitive position and the stock performance of our competitors; and
- consideration of our history as a private company and previous valuation reports received by independent valuation firms.

As of December 31, 2009, 1,323,776 shares of our common stock were issuable upon exercise of stock options.



## Results of Operations

### *Comparison of the Years Ended December 31, 2009 and 2008*

*Research and Development Expenses.* Research and development expenses were \$8.4 million for the year ended December 31, 2009, compared with \$10.9 million for the year ended December 31, 2008. The \$2.5 million decrease in our research and development expenses was due to the decreased activity in our Phase 2 clinical study designed to examine the impact of A-002 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.

*General and Administrative Expenses.* General and administrative expenses were \$3.4 million for the year ended December 31, 2009; compared with \$3.0 million for the year ended December 31, 2008. The \$0.4 million increase was primarily attributable to expenses relating to the expansion of our intellectual property portfolio.

*Interest and Other Income.* Interest and other income was \$24,000 for the year ended December 31, 2009, compared with \$178,000 for the year ended December 31, 2008. The decrease in interest and other income was due to lower average cash balances.

*Interest and Other Expense.* Interest and other expense was \$386,000 for the year ended December 31, 2009, compared with \$296,000 for the year ended December 31, 2008. Interest and other expense recorded in 2009 consisted of interest accrued for convertible promissory notes and amortization of note discount and debt issuance cost. Interest and other expense recorded in 2008 consisted of interest accrued on past due license fee obligations.

*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. The convertible promissory notes issued in 2009 included a beneficial conversion feature that would be measured and recorded upon a triggering event as defined in the agreement.

### *Comparison of the Years Ended December 31, 2008 and December 31, 2007*

*Research and Development Expenses.* Research and development expenses were \$10.9 million for the year ended December 31, 2008, compared with \$23.9 million for the year ended December 31, 2007. The \$13.0 million decrease in our research and development expenses reflects a one-time license initiation fee of \$6.0 million recognized in 2007 in connection with a worldwide, exclusive license agreement we entered into with Amgen (see Note 5 to our financial statements for further details). The remaining decrease of \$7.0 million was primarily attributable to reduced clinical costs associated with our Phase 2 clinical studies for the development of A-002. In 2007, we initiated and completed two Phase 2 clinical studies for A-002, while in 2008, we initiated a single Phase 2b clinical study for A-002.

*General and Administrative Expenses.* General and administrative expenses were \$3.0 million for the year ended December 31, 2008, compared with \$2.5 million for the year ended December 31, 2007. The \$0.5 million increase was primarily attributable to our implementation of our vacation policy, professional fees relating to the expansion of our intellectual property portfolio and travel relating to business development activities primarily consisting of scientific and industry conferences and symposiums.

*Interest and Other Income.* Interest and other income was \$178,000 for the year ended December 31, 2008, compared with \$697,000 for the year ended December 31, 2007. The decrease in interest and other income of approximately \$519,000 was primarily attributable to lower average cash balances and lower average interest rates during 2008.

*Interest Expense.* Interest expense was \$296,000 for the year ended December 31, 2008, compared with no interest expense for the year ended December 31, 2007. The interest expense during the year ended December 31, 2008 was due to interest recognized in connection with issuance of convertible promissory notes in February and May 2008, which were converted into shares of our Series B-2 convertible preferred stock in connection with our Series B-2 financing consummated in August 2008 and interest accrued in connection with a license fee payable due to Amgen.

*Beneficial Conversion Features.* For the year ended December 31, 2008, we recorded \$4.1 million in expense related to the beneficial conversion features of our convertible promissory notes, which were convertible into shares of our Series B-2 convertible preferred stock at a discount of 25% from the original issue price of our Series B-2 convertible preferred stock. There were no outstanding notes with similar terms during 2007.

### **Liquidity and Capital Resources**

To date, we have funded our operations primarily through private placements of preferred stock and convertible debt. As of December 31, 2009, we had received net proceeds of approximately \$32.2 million from the sale of equity securities, and net proceeds of approximately \$26.5 million from the issuance of convertible promissory notes, of which \$12.2 million have been converted into preferred stock. As of December 31, 2009, we had cash and cash equivalents of approximately \$3.8 million. In addition, in September 2009, we entered into a stock purchase agreement, as amended to add an additional purchaser in November 2009, with certain existing holders of our preferred stock for the sale of shares of our common stock for an aggregate purchase price of \$20.5 million. The \$20.5 million currently held in an escrow account will be released upon the completion of an initial public offering in which the aggregate net proceeds to us are at least \$50.0 million (after underwriting discounts, commissions and fees). On December 11, 2009, we entered into a note purchase agreement and amended the September 2009 stock purchase and escrow agreements with such holders of our preferred stock. The agreements provided for the release of \$3.4 million of the \$20.5 million currently held in the escrow account. We issued convertible promissory notes, or escrow notes, for the released amount to the investors.

On February 24, 2010, we amended the September 2009 stock purchase and escrow agreements with the existing holders of our preferred stock to provide that the funds held in the escrow account will be released simultaneously with the completion of an initial public offering in which the aggregate net proceeds to us (after underwriting discounts, commissions and fees) are at least \$20.0 million.

#### *Cash Flows*

##### *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 and

escrow notes, partially offset by approximately \$274,000 in expense paid in connection with our initial public offering.

*Year Ended December 31, 2008*

For the year ended December 31, 2008, we incurred a net loss of \$18.1 million.

Net cash used in operating activities was approximately \$17.1 million. The net loss is higher than cash used in operating activities by \$1.0 million. The primary drivers for the difference are adjustments for non-cash charges such as depreciation and amortization of \$22,000 and stock-based compensation of \$195,000 due to increased headcount and corresponding equity grants made to new and existing employees, issuance of convertible preferred stock in lieu of interest payments of \$156,000, beneficial conversion feature of \$4.1 million and a decrease in current assets of \$31,000, offset by a decrease in current liabilities of \$2.6 million due to payments made to vendors for Phase 2 clinical study activities previously completed and a decrease in license fee payable of \$1.0 million due to payments made.

Net cash provided by investing activities was approximately \$5.8 million and consisted of proceeds received from the sale or maturity of short-term investments.

Net cash provided by financing activities was approximately \$19.0 million and consisted primarily of private placements of our convertible preferred stock, through which we received net proceeds of \$6.8 million, and issuance of convertible promissory notes for \$12.2 million, which were converted into Series B-2 convertible preferred stock during 2008.

*Year Ended December 31, 2007*

For the year ended December 31, 2007, we incurred a net loss of \$25.7 million.

Net cash used in operating activities was approximately \$15.0 million. The net loss is higher than cash used in operating activities by \$10.7 million. The primary drivers for the difference are adjustments for non-cash charges such as depreciation and amortization of \$19,000, amortization of discount on short-term investments of \$130,000 and stock-based compensation of \$87,000, offset by an increase in current liabilities of \$4.8 million as a result of increased Phase 2 clinical study expenses, an increase of license fee payable of \$6.0 million due the completion of a licensing agreement with Amgen to acquire the rights to A-623 and an increase in current assets of \$62,000.

Net cash used in investing activities was approximately \$5.8 million, consisting primarily of purchases of short-term investments of \$14.8 million, offset by proceeds from the sale or maturity of these investments totaling \$9.1 million.

Net cash provided by financing activities was approximately \$119,000, which consisted of cash proceeds from the exercise of stock options.

## Contractual Obligations and Commitments

The following table summarizes our long-term contractual obligations and commitments as of December 31, 2009:

	Payments Due by Period				
	Total	Less than 1 Year	1-3 Years	4-5 Years	After 5 Years
Operating lease obligations (1) . . .	\$ 90,696	\$ 82,896	\$7,800	\$ —	\$ —
Convertible promissory notes (2) . .	13,400,000	13,400,000	—	—	—
Total . . . . .	<u>\$13,490,696</u>	<u>\$13,482,896</u>	<u>\$7,800</u>	<u>\$ —</u>	<u>\$ —</u>

- (1) Operating lease obligations reflect our obligation to make payments in connection with a sublease that commenced in October 2008 and will expire on September 30, 2010 for approximately 7,800 square feet of office space and office equipment leases that commenced in October 2007 and will expire in June 2013.
- (2) Reflects convertible promissory notes issued in July and September 2009 and escrow notes issued in December 2009 to certain of our existing investors. The notes are convertible upon the occurrence of certain events and mature on the earlier of (i) July 17, 2010, (ii) the date of the sale of all or substantially all of our equity interests or assets or (iii) an event of default under the terms of the notes.

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<sub>2</sub> inhibitors, we are obligated to make additional milestone payments upon the achievement of certain development, regulatory, and commercial objectives, including milestone payments of \$1.75 million to each of Eli Lilly and Shionogi & Co., Ltd. due no later than 12 months from the enrollment of the first patient in a Phase 3 clinical study for A-002. The \$1.75 million milestone payment to Eli Lilly may be paid in the form of shares of our common stock issued at the price per share at which shares are sold to the public in our initial public offering, minus any per-share underwriting discounts, commissions or fees, which would result in the issuance of 265,957 shares, based on the initial public offering price of \$7.00 per share. We are obligated to issue such shares to Eli Lilly within 10 business days after the closing of our initial public offering. The \$1.75 million milestone payment to Shionogi & Co., Ltd. will be paid in the form of shares of our common stock issued at the price per share at which shares are sold to the public in our initial public offering, minus any per-share underwriting discounts, commissions or fees, which would result in the issuance of 265,957 shares, based on the initial public offering price of \$7.00 per share. The shares will be issued within 10 business days after the closing of our initial public offering. 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.

### *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:

- initiate the Phase 3 VISTA-16 study for A-002;
- continue clinical development of 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 the proceeds of our initial public offering, together with our existing resources as of the date of this annual 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 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.

### **Recent Accounting Pronouncements**

In June 2009, the FASB issued FASB ASC 105, *Generally Accepted Accounting Principles*, that establishes the FASB Accounting Standards Codification as the sole source of Generally Accepted Accounting Principles, or GAAP. Pursuant to the provisions of FASB ASC 105, we have updated references to GAAP in our financial statements issued for the period ending December 31, 2009 and thereafter. The adoption of FASB ASC 105 had no impact on our financial position or results of operations.

In June 2008, the FASB issued FASB ASC 815-40, *Derivatives and Hedging*. FASB ASC 815-40 provides guidance on how to determine if certain instruments (or embedded features) are considered indexed to a company's own stock, including instruments similar to warrants to purchase the company's stock. FASB ASC 815-40 requires companies to use a two-step approach to evaluate an instrument's contingent exercise provisions and settlement provisions in determining whether the instrument is considered to be indexed to its own stock and therefore exempt from the application of FASB ASC 815. Although FASB ASC 815-40 is effective for fiscal years beginning after December 15, 2008, any outstanding instrument at the date of adoption will require a retrospective application of the accounting through a cumulative effect adjustment to retained earnings upon adoption. We do not expect the adoption of FASB ASC 815-40 to have a material impact on either our financial position or results of operations.

### **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.

### **QUANTITATIVE AND QUALITATIVE DISCLOSURE 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. However, since a majority of our investments are in short-term certificates of deposit and money market funds, we do not believe we are subject to any material market risk exposure. We do not have any foreign currency or any other material derivative financial instruments.

### **CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

None.

## EXECUTIVE OFFICERS AND DIRECTORS

The following table sets forth information regarding our executive officers and directors, including their ages as of December 31, 2009.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Paul F. Truex . . . . .	41	Chief Executive Officer, President and Director
Christopher P. Lowe . . . . .	42	Chief Financial Officer and Vice President of Administration
James E. Pennington, M.D. . . . .	66	Chief Medical Officer and Executive Vice President
Colin Hislop, M.D. . . . .	52	Senior Vice President, Cardiovascular Products
Debra Odink, Ph.D. . . . .	46	Vice President, Pharmaceutical Research and Development
Joaquim Trias, Ph.D. . . . .	49	Senior Vice President, Preclinical Development
Stephen Lau . . . . .	38	Vice President, Corporate and Business Development
Ursula Fritsch, Pharm. D . . . . .	49	Vice President, Global Regulatory and Compliance
Christopher S. Henney, Ph.D. (1) . . . . .	68	Chairman of the Board of Directors
Annette Bianchi (1) . . . . .	51	Director
James I. Healy, M.D., Ph.D. (2) . . . . .	44	Director
A. Rachel Leheny, Ph.D. (3) . . . . .	46	Director
Donald J. Santel (2) (3) . . . . .	49	Director
Daniel K. Spiegelman (2) . . . . .	51	Director
David E. Thompson (1) (3) . . . . .	62	Director

(1) Member of nominating and corporate governance committee.

(2) Member of audit committee.

(3) Member of compensation committee.

**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. and Eiger Biopharmaceuticals, Inc.

**Christopher P. Lowe.** Mr. Lowe has served as our Chief Financial Officer and Vice President of Administration since November 2007. 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.

*James E. Pennington, M.D.* Dr. Pennington has served as our Executive Vice President and Chief Medical Officer since March 2007. Dr. Pennington came to Anthera from CoTherix, Inc. where, since February 2004, he served as Executive Vice President and Chief Medical Officer, focusing on licensing and developing and commercializing therapeutic products for the treatment of cardiovascular diseases. He holds a B.A. in General Science from the University of Oregon and an M.D. from the University of Oregon School of Medicine and is board certified in internal medicine and infectious disease.

*Colin Hislop, M.D.* Dr. Hislop has 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 has 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 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.

*Joaquim Trias, Ph.D.* Dr. Trias has served as our Senior Vice President of Preclinical Development since December 2004. From July 1996 until July 2004, Dr. Trias was Vice President of Drug Discovery Research at Vicuron Pharmaceuticals Inc. where he directed internal discovery projects, from concept to clinical candidate, and participated in its clinical development programs. Dr. Trias holds a B.S. in Biology and a Ph.D. in microbiology from the University of Barcelona and completed his training at the University of California at Berkeley.

*Stephen Lau.* Mr. Lau has served as our Vice President of Corporate and Business Development since February 2008. From October 2003 until February 2008, Mr. Lau managed and negotiated in- and out-licensing opportunities at Amgen Inc., a biopharmaceutical company. From March 2001 until September 2003, Mr. Lau was an investment banker at Adams, Harkness & Hill. Prior to that, Mr. Lau was a management consultant at Strategic Decisions Group and Deloitte Consulting. Mr. Lau holds a B.A. in microbiology and an M.S. in immunology from the University of California at Davis, and a Master's degree in health care management from Harvard University.

*Ursula Fritsch, Pharm.D.* Dr. Fritsch has served as our Vice President, Global Regulatory and Compliance since April 2005. Prior to joining the company, from 2003 to 2005, Dr. Fritsch was Senior Director of Regulatory Affairs at Peninsula Pharmaceuticals, Inc., where she oversaw both early and late stage regulatory strategy and operations for their antibiotic portfolio. Prior to Peninsula, Dr. Fritsch held various management positions and oversaw several new drug application approvals at Genentech, Inc. and Oclassen Pharmaceuticals, Inc. and was head of regulatory at Onyx Pharmaceuticals, Inc. Dr. Fritsch holds a B.A. from the University of Nebraska and a Pharm. D. from Creighton University.

*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 1997 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 is currently the Chairman and a director of Oncothyreon, Inc., is vice-chairman and a director of Cyclacel Pharmaceuticals, Inc., and is a director of AVI BioPharma 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. 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 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.

*A. Rachel Leheny, Ph.D.* Dr. Leheny has served as a member of our board of directors since August 2008. Dr. Leheny is (i) a Managing Director of Caxton Advantage Venture Partners, L.P., which is the General Partner of Caxton Advantage Life Sciences Fund, L.P., a life-sciences venture capital fund that she co-founded in 2006 and (ii) a member of Advantage Life Sciences Partners LLC, the Managing General Partner of Caxton Advantage Venture Partners, L.P. Prior to that, from April 2000 to June 2002, she was head of the biotechnology research team at Lehman Brothers. Before Lehman, from April 1998 to April 2000, Dr. Leheny headed the biotechnology research team at UBS Warburg and before that, from April 1993 to April 1998, worked at Hambrecht & Quist, most recently as Managing Director and Senior Analyst. Dr. Leheny holds an A.B. in chemistry from Harvard and a Ph.D. from Columbia University. She did post-doctoral work at the University of California at Berkeley, where she was a National Institutes of Health fellow and lecturer.

*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 November 2006 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 publicly traded biopharmaceutical companies. 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.

## MARKET PRICE OF AND DIVIDENDS ON THE REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

### Market Information

Our common stock has been traded on The NASDAQ Global Market under the symbol "ANTH" since our initial public offering on March 1, 2010. Prior to that time, there was no public market for our common stock.

The following table sets forth, for the periods indicated, the range of high and low sales prices of our common stock as quoted on The NASDAQ Global Market:

<u>2010</u>	<u>High</u>	<u>Low</u>
1st Quarter (March 1, 2010 through March 31, 2010) .....	\$7.39	\$6.86

### Holder

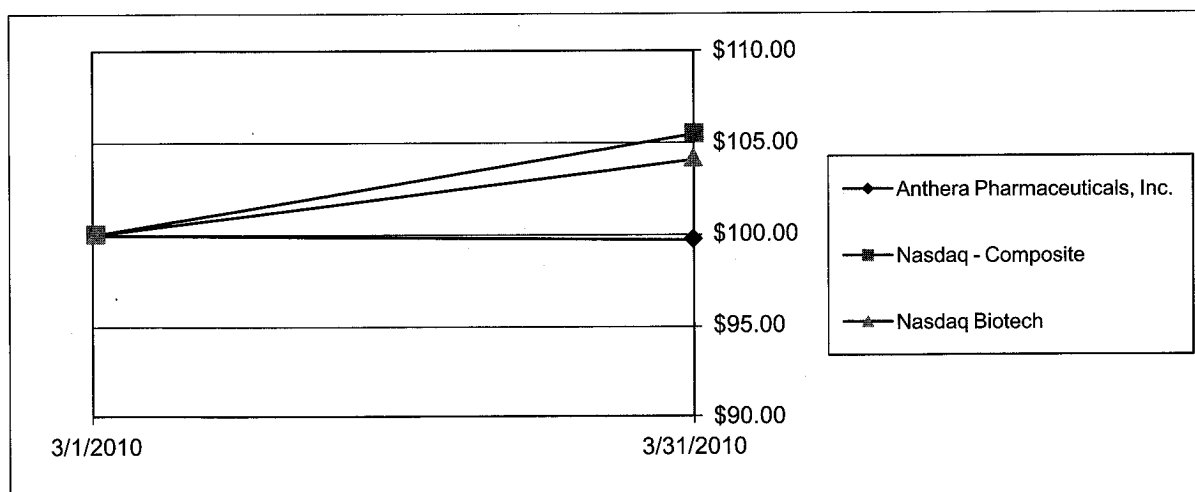
As of May 28, 2010, there were approximately 275 holders of record of our common stock.

### Dividends

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.

### Stock Performance Graph

The following graph compares the cumulative total stockholder return for our common stock, the NASDAQ Biotechnology Index and the NASDAQ Composite Index for the period beginning March 1, 2010 (the date of our initial public offering) and ending March 31, 2010. This graph assumes that \$100 was invested on March 1, 2010 in our common stock, the NASDAQ Composite Index and the NASDAQ Biotechnology Index. It also assumes that any dividends were reinvested. The data shown in the following graph is not necessarily indicative of future stock price performance.



**SELECTED QUARTERLY FINANCIAL DATA (UNAUDITED)**

	Quarter Ended			
	<u>March 31</u>	<u>June 30</u>	<u>September 30</u>	<u>December 31</u>
<b>2008</b>				
Expenses:				
Research and development . . . . .	2,996,942	2,366,494	2,111,817	3,407,069
General and administrative . . . . .	<u>849,251</u>	<u>742,992</u>	<u>713,367</u>	<u>674,560</u>
Loss from operations . . . . .	(3,846,193)	(3,109,486)	(2,825,184)	(4,081,629)
Interest income and other expense (net) . . . . .	37,938	(49,312)	(108,521)	1,721
Beneficial conversion features . . . . .	—	<u>(1,392,601)</u>	<u>(2,725,943)</u>	—
Net loss . . . . .	<u>(3,808,255)</u>	<u>(4,551,399)</u>	<u>(5,659,648)</u>	<u>(4,079,908)</u>
Net loss per share — basic and diluted . . . . .	<u>(3.15)</u>	<u>(3.45)</u>	<u>(4.05)</u>	<u>(2.83)</u>
Shares used in computing basic and diluted net loss per share . . . . .	<u>1,210,757</u>	<u>1,317,862</u>	<u>1,398,120</u>	<u>1,443,843</u>
<b>2009</b>				
Expenses:				
Research and development . . . . .	2,914,766	2,286,415	2,525,948	688,285
General and administrative . . . . .	<u>846,243</u>	<u>999,331</u>	<u>884,908</u>	<u>695,208</u>
Loss from operations . . . . .	(3,761,009)	(3,285,746)	(3,410,856)	(1,383,493)
Interest income and other expense (net) . . . . .	<u>(24,351)</u>	<u>(50,310)</u>	<u>(193,556)</u>	<u>(94,171)</u>
Net loss . . . . .	<u>(3,785,360)</u>	<u>(3,336,056)</u>	<u>(3,604,412)</u>	<u>(1,477,664)</u>
Net loss per share — basic and diluted . . . . .	(2.56)	(2.24)	(2.36)	(0.95)
Shares used in computing basic and diluted net loss per share . . . . .	1,470,722	1,496,011	1,526,903	1,557,708

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**Anthera Pharmaceuticals, Inc.**  
**(A Development Stage Company)**

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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, 2009 and 2008, and the related statements of operations, stockholders' deficit and comprehensive income (loss), and cash flows for each of the three years in the period ended December 31, 2009 and for the period from September 9, 2004 (Date of Inception) to December 31, 2009. 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, 2009 and 2008, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2009 and for the period from September 9, 2004 (Date of Inception) to December 31, 2009, in conformity with accounting principles generally accepted in the United States of America.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. 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, the deficiency in working capital at December 31, 2009 and the Company's operating losses since inception raise substantial doubt about its ability to continue as a going concern. Management's plans concerning these matters are also described in Note 1 to the financial statements. The financial statements do not include any adjustments that might result from the outcome of these uncertainties.

/s/ Deloitte & Touche LLP  
San Francisco, California  
January 28, 2010

(except for the last four paragraphs of Note 12, as to which the date is February 24, 2010)

**Anthera Pharmaceuticals, Inc.**  
**(A Development Stage Company)**

**BALANCE SHEETS**

	<u>December 31,</u> <u>2008</u>	<u>December 31,</u> <u>2009</u>	<u>December 31,</u> <u>2009</u> <u>Pro Forma</u> <u>(Note 2)</u> <u>(unaudited)</u>
<b>ASSETS</b>			
<b>CURRENT ASSETS:</b>			
Cash and cash equivalents .....	\$ 7,895,113	\$ 3,803,384	
Restricted cash .....	40,000	—	
Prepaid expenses and other current assets .....	63,468	19,825	
Total current assets .....	<u>7,998,581</u>	<u>3,823,209</u>	
Property and equipment—net .....	27,779	12,994	
Deferred financing cost .....	—	1,922,183	
Other assets .....	7,794	130,403	
<b>TOTAL .....</b>	<u><b>\$ 8,034,154</b></u>	<u><b>\$ 5,888,789</b></u>	
<b>LIABILITIES AND STOCKHOLDERS' DEFICIT</b>			
<b>CURRENT LIABILITIES:</b>			
Accounts payable .....	\$ 1,597,300	\$ 3,145,706	
Accrued clinical study .....	1,461,179	565,034	
Accrued liabilities .....	319,893	767,663	
Accrued payroll and related costs .....	116,045	153,235	
Warrant and derivative liabilities .....	—	406,130	
Convertible promissory notes .....	—	13,129,877	
License fee payable .....	5,000,000	—	
Total current liabilities .....	<u>8,494,417</u>	<u>18,167,645</u>	
Total liabilities .....	<u>8,494,417</u>	<u>18,167,645</u>	
Commitments and Contingencies (Note 5)			
Stockholders' deficit			
Series A-1 convertible preferred stock, \$0.001 par value, 552,530 shares authorized, issued and outstanding at December 31, 2008 and 2009; (aggregate liquidation value of \$813,508 as of December 31, 2008 and 2009); 0 shares outstanding pro forma at December 31, 2009 .....	552	552	\$ —
Series A-2 convertible preferred stock, \$0.001 par value, 1,635,514 shares authorized; 1,620,669, shares issued and outstanding at December 31, 2008 and 2009; (aggregate liquidation value of \$8,323,782 as of December 31, 2008 and 2009); 0 shares outstanding pro forma at December 31, 2009 .....	1,621	1,621	—
Series B-1 convertible preferred stock, \$0.001 par value, 2,751,168 shares authorized; 2,746,865 shares issued and outstanding at December 31, 2008 and 2009; (aggregate liquidation value of \$19,986,220 as of December 31, 2008 and 2009); 0 shares outstanding pro forma at December 31, 2009 .....	2,747	2,747	—
Series B-2 convertible preferred stock, \$0.001 par value, 7,009,345 shares authorized; 3,226,244 shares issued and outstanding at December 31, 2008 and December 31, 2009; (aggregate liquidation value of \$23,474,182 as of December 31, 2008 and 2009); 0 shares outstanding pro forma at December 31, 2009 .....	3,226	3,226	—
Preferred stock, \$0.001 par value .....	—	—	—
Common stock, \$0.001 par value, 18,443,341 shares authorized; 1,454,890 and 1,566,199 shares issued and outstanding at December 31, 2008 and 2009, respectively; 9,906,981 shares outstanding pro forma at December 31, 2009 .....	1,455	1,566	9,907
Additional paid-in capital .....	52,557,756	52,941,384	52,941,189
Accumulated other comprehensive loss .....	(1,160)	—	—
Deficit accumulated the during the development stage .....	(53,026,460)	(65,229,952)	(65,229,952)
Total stockholders' deficit .....	<u>(460,263)</u>	<u>(12,278,856)</u>	<u>\$(12,278,856)</u>
<b>TOTAL .....</b>	<u><b>\$ 8,034,154</b></u>	<u><b>\$ 5,888,789</b></u>	

See accompanying notes to financial statements.



**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, 2009
	2007	2008	2009	
OPERATING EXPENSES:				
Research and development . . . . .	\$ 23,921,932	\$ 10,882,322	\$ 8,415,414	\$ 51,323,981
General and administrative . . . . .	2,468,607	2,980,170	3,425,690	9,917,567
Total operating expenses . . . . .	<u>26,390,539</u>	<u>13,862,492</u>	<u>11,841,104</u>	<u>61,241,548</u>
LOSS FROM OPERATIONS . . . . .	<u>(26,390,539)</u>	<u>(13,862,492)</u>	<u>(11,841,104)</u>	<u>(61,241,548)</u>
OTHER INCOME (EXPENSE):				
Interest and other income . . . . .	696,962	178,129	23,534	1,019,760
Interest and other expense . . . . .	—	(296,303)	(385,922)	(699,620)
Beneficial conversion features . . . . .	—	(4,118,544)	—	(4,308,544)
Total other income (expense) . . . . .	<u>696,962</u>	<u>(4,236,718)</u>	<u>(362,388)</u>	<u>(3,988,404)</u>
NET LOSS . . . . .	<u>\$(25,693,577)</u>	<u>\$(18,099,210)</u>	<u>\$(12,203,492)</u>	<u>\$(65,229,952)</u>
Net loss per share—basic and diluted . . . . .	<u>\$ (28.15)</u>	<u>\$ (13.47)</u>	<u>\$ (8.06)</u>	
Weighted-average number of shares used in per share calculation—basic and diluted . . . . .	<u>912,668</u>	<u>1,343,420</u>	<u>1,513,598</u>	
Pro forma net loss per share—basic and diluted (unaudited) . . . . .			<u>\$ (1.24)</u>	
Pro forma weighted-average number of shares used in per share calculation—basic and diluted (unaudited) . . . . .			<u>9,854,380</u>	

See accompanying notes to financial statements.

**Anthera Pharmaceuticals, Inc.**  
**(A Development Stage Company)**

**STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT) AND COMPREHENSIVE LOSS**

	Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Deficit Accumulated During Development Stage	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount				
DATE OF INCEPTION—September 9, 2004								
Issuance of common stock to founders for cash . . . . .	—	\$ —	140,186	\$140	\$ 100	\$ —	\$ —	\$ 240
Issuance of common stock to founders for service . . . . .	—	—	735,981	736	524	—	—	1,260
Repurchase of common stock from founder . . . . .	—	—	(73,014)	(73)	(52)	—	—	(125)
Issuance of Series A convertible preferred stock for cash at \$1.47 per share, net of issuance cost of \$8,555 . . . . .	526,955	527	—	—	766,768	—	—	767,295
Issuance of Series A convertible preferred stock in exchange for service at \$1.47 per share . . . . .	25,575	25	—	—	37,631	—	—	37,656
Issuance of common stock upon exercise of stock options . . . . .	—	—	33,292	33	4,527	—	—	4,560
Reclass of early exercise of stock options to liability . . . . .	—	—	(29,204)	(29)	(3,971)	—	—	(4,000)
Stock-based compensation expense related to consultant options . . . . .	—	—	—	—	842	—	—	842
Net loss . . . . .	—	—	—	—	—	—	(554,427)	(554,427)
<b>BALANCE—December 31, 2005 . . . . .</b>	<b>552,530</b>	<b>552</b>	<b>807,241</b>	<b>807</b>	<b>806,369</b>	<b>—</b>	<b>(554,427)</b>	<b>253,301</b>
Conversion of Series A convertible preferred stock to Series A-1 convertible preferred stock at a ratio of 1:1 . . . . .	—	—	—	—	—	—	—	—
Issuance of Series A-2 convertible preferred stock for cash at \$5.14 per share—net of issuance cost of \$202,019 . . . . .	1,138,677	1,139	—	—	5,645,093	—	—	5,646,232
Issuance of Series A-2 convertible preferred stock upon conversion of convertible promissory notes at \$3.85 and \$5.14 per share . . . . .	224,248	224	—	—	961,527	—	—	961,751
Issuance of Series A-2 convertible preferred stock in exchange for licensed technology at \$5.14 per share . . . . .	257,744	258	—	—	1,323,524	—	—	1,323,782
Beneficial conversion feature related to conversion of convertible promissory notes into Series A-1 convertible preferred stock . . . . .	—	—	—	—	190,000	—	—	190,000
Issuance of Series B convertible preferred stock for cash at \$7.28 per share—net of issuance cost of \$20,930 . . . . .	2,619,568	2,620	—	—	19,036,450	—	—	19,039,070
Issuance of Series B convertible preferred stock in exchange for licensed technology at \$7.28 per share . . . . .	127,297	127	—	—	926,091	—	—	926,218
Issuance of common stock upon exercise of stock options . . . . .	—	—	125,581	126	17,074	—	—	17,200
Reclass of early exercise of stock options to liability . . . . .	—	—	(36,810)	(37)	(5,006)	—	—	(5,043)
Stock-based compensation expense related to consultant options . . . . .	—	—	—	—	4,358	—	—	4,358
Stock-based compensation expense related to employee options . . . . .	—	—	—	—	4,648	—	—	4,648
Net loss . . . . .	—	—	—	—	—	—	(8,679,246)	(8,679,246)
<b>BALANCE—December 31, 2006 . . . . .</b>	<b>4,920,064</b>	<b>\$4,920</b>	<b>896,012</b>	<b>\$896</b>	<b>\$28,910,128</b>	<b>\$—</b>	<b>\$(9,233,673)</b>	<b>\$19,682,271</b>

See accompanying notes to financial statements.

**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		Total Stockholders' Equity (Deficit)	
	Shares	Amount	Shares	Amount								
BALANCE—December 31, 2006.	4,920,064	\$4,920	896,012	\$ 896	\$28,910,128	\$	\$	—	\$ (9,233,673)	\$ 19,682,271		
Issuance of common stock upon exercise of stock options	—	—	493,605	494	118,426	—	—	—	—	118,920		
Release of early exercise of stock options liability	—	—	(240,165)	(240)	(60,333)	—	—	—	—	(60,573)		
Issuance of common stock for service	—	—	16,355	16	2,434	—	—	—	—	2,450		
Stock-based compensation expense related to consultant options	—	—	—	—	12,489	—	—	—	—	12,489		
Stock-based compensation expense related to employee options	—	—	—	—	74,861	—	—	—	—	74,861		
Change in other comprehensive loss—unrealized loss on investments	—	—	—	—	—	—	—	(1,812)	—	(1,812)		
Net loss	—	—	—	—	—	—	—	—	—	(25,693,577)		
Comprehensive loss	—	—	—	—	—	—	—	—	—	(25,695,389)		
BALANCE—December 31, 2007.	4,920,064	4,920	1,165,807	1,166	29,058,005	—	—	(1,812)	(34,927,250)	(5,864,971)		
Conversion of Series B convertible preferred stock to Series B-1 convertible preferred stock at a ratio of 1:1	—	—	—	—	—	—	—	—	—	—		
Issuance of Series B-2 convertible preferred stock for cash at \$7.28 per share—net of issuance cost of \$242,327 and warrants issuance (below)	962,066	962	—	—	6,512,241	—	—	—	—	6,513,203		
Issuance of Series B-2 convertible preferred stock upon conversion of convertible promissory notes at \$5.46 per share	2,235,661	2,235	—	—	12,197,765	—	—	—	—	12,200,000		
Issuance of Series B-2 convertible preferred stock in lieu of interest payment at \$5.46 per share	28,517	29	—	—	155,601	—	—	—	—	155,630		
Issuance of warrants in connection with issuance of Series B-2 convertible preferred stock	—	—	—	—	244,478	—	—	—	—	244,478		
Beneficial conversion feature related to conversion of convertible promissory notes into Series B-2 convertible preferred stock	—	—	—	—	4,118,544	—	—	—	—	4,118,544		
Issuance of common stock upon exercise of stock options	—	—	179,886	180	67,925	—	—	—	—	68,105		
Release of early exercise of stock options liability	—	—	128,180	128	12,773	—	—	—	—	12,901		
Repurchase of common stock upon employee termination	—	—	(18,983)	(19)	(4,856)	—	—	—	—	(4,875)		
Stock-based compensation expense related to consultant options	—	—	—	—	51,874	—	—	—	—	51,874		
Stock-based compensation expense related to employee options	—	—	—	—	143,406	—	—	—	—	143,406		
Change in other comprehensive loss—unrealized gain on investments	—	—	—	—	—	—	—	652	—	652		
Net loss	—	—	—	—	—	—	—	—	—	(18,099,210)		
Comprehensive loss	—	—	—	—	—	—	—	—	—	(18,098,558)		
BALANCE—December 31, 2008.	8,146,308	8,146	1,454,890	1,455	52,557,756	(1,160)	(1,160)	(1,160)	(53,026,460)	(460,263)		
Issuance of common stock upon exercise of stock options	—	—	19,089	19	15,255	—	—	—	—	15,274		
Release of early exercise of stock options liability	—	—	92,220	92	26,027	—	—	—	—	26,119		
Stock-based compensation expense related to consultant options	—	—	—	—	88,382	—	—	—	—	88,382		
Stock-based compensation expense related to employee options	—	—	—	—	253,964	—	—	—	—	253,964		
Change in other comprehensive loss—unrealized gain on investments	—	—	—	—	—	—	—	1,160	—	1,160		
Net loss	—	—	—	—	—	—	—	—	—	(12,203,492)		
Comprehensive loss	—	—	—	—	—	—	—	—	—	(12,202,332)		
Balance December 31, 2009	8,146,308	\$8,146	1,566,199	\$1,566	\$52,941,384	\$	\$	\$	\$(65,229,952)	\$(12,278,856)		

See accompanying notes to financial statements.

**Anthera Pharmaceuticals, Inc.**  
**(A Development Stage Company)**

**STATEMENTS OF CASH FLOWS**

	Years Ended December 31,			September 9,
	2007	2008	2009	2004 (Date of Inception) to December 31, 2009
<b>CASH FLOW FROM OPERATING ACTIVITIES:</b>				
Net loss	\$(25,693,577)	\$(18,099,210)	\$(12,203,492)	\$(65,229,952)
Adjustments to reconcile net loss to net cash used in operating activities:				
Depreciation	18,922	21,997	18,451	72,327
Amortization of discount on short-term investments	(130,248)	—	—	(130,248)
Realized loss on short-term investments	—	7,522	1,160	8,682
Realized gain from disposal of property and equipment	—	—	(214)	(214)
Stock-based compensation expense—employees	74,861	143,406	253,964	476,879
Stock-based compensation expense—consultants	12,489	51,874	88,382	157,945
Issuance of common stock for consulting service	2,450	—	—	41,366
Issuance of preferred stock for service and license fee	—	—	—	2,250,000
Issuance of preferred stock in lieu of interest payment	—	155,630	—	157,381
Beneficial conversion feature	—	4,118,544	—	4,308,544
Amortization of discount on convertible promissory notes	—	—	136,722	136,722
Amortization of debt issuance cost	—	—	79,644	79,644
Mark to market adjustment on warrant liability	—	—	(715)	(715)
Changes in assets and liabilities:				
Prepaid expenses and other assets	(62,269)	31,182	51,437	(19,826)
Accounts payable	3,002,254	(2,176,982)	(212,623)	1,384,676
Accrued clinical study	1,160,717	65,013	(896,145)	565,034
Accrued liabilities	8,489	135,137	473,889	732,192
Accrued payroll and related costs	651,529	(678,910)	37,190	153,235
License fee payable	6,000,000	(1,000,000)	(5,000,000)	—
Net cash used in operating activities	(14,954,383)	(17,124,797)	(17,172,350)	(54,856,328)
<b>INVESTING ACTIVITIES:</b>				
Property and equipment purchases	(27,145)	(6,752)	(3,852)	(85,507)
Proceeds from disposal of property and equipment	—	—	400	400
Purchase of short-term investments	(14,800,564)	—	—	(14,800,564)
Proceeds from sale of short-term investments	9,104,000	5,818,132	—	14,922,132
Restricted cash	(70,000)	30,000	40,000	—
Net cash provided by (used in) investing activities	(5,793,709)	5,841,380	36,548	36,461
<b>FINANCING ACTIVITIES:</b>				
Proceeds from issuance of convertible notes	—	12,200,000	13,400,000	26,560,000
Payment of debt issuance cost	—	—	(97,317)	(97,317)
Net proceeds from issuance of preferred stock	—	6,757,681	—	32,210,278
Payment of financing cost for initial public offering	—	—	(273,884)	(273,884)
Proceeds from issuance of common stock—net of repurchase	—	—	—	115
Proceeds from exercise of stock options	118,920	68,105	15,274	224,059
Net cash provided by financing activities	118,920	19,025,786	13,044,073	58,623,251
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(20,629,172)	7,742,369	(4,091,729)	3,803,384
CASH AND CASH EQUIVALENTS—Beginning of period	20,781,916	152,744	7,895,113	—
CASH AND CASH EQUIVALENTS—End of period	\$ 152,744	\$ 7,895,113	\$ 3,803,384	\$ 3,803,384
<b>SUPPLEMENTAL CASH DISCLOSURES OF CASH FLOW INFORMATION:</b>				
Interest paid	\$ —	\$ 1,413	\$ —	\$ 15,229
Taxes paid	\$ 8,235	\$ 4,379	\$ 4,900	\$ 29,587
<b>NONCASH INVESTMENT AND FINANCING ACTIVITIES:</b>				
Conversion of convertible promissory notes and accrued interest into Series A-2 convertible preferred stock and Series B-2 convertible preferred stock	\$ —	\$ 12,355,630	\$ —	\$ 13,317,381
Beneficial conversion feature	\$ —	\$ 4,118,544	\$ —	\$ 4,308,544
Accrued and deferred offering cost	\$ —	\$ —	\$ 1,648,299	\$ 1,648,299
Accrued and deferred debt issuance cost	\$ —	\$ —	\$ 112,730	\$ 112,730

See accompanying notes to financial statements.

**Anthera Pharmaceuticals, Inc.**  
**(A Development Stage Company)**

**NOTES TO FINANCIAL STATEMENTS**  
**FOR THE YEARS ENDED DECEMBER 31, 2007, 2008 AND 2009, AND FOR THE**  
**PERIOD FROM SEPTEMBER 9, 2004 (DATE OF INCEPTION) TO DECEMBER 31, 2009**

**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, A-002 and A-001, are inhibitors of the family of human enzymes known as secretory phospholipase A<sub>2</sub>, or sPLA<sub>2</sub>. The Company's other primary product candidate, A-623, targets elevated levels of B-lymphocyte stimulator. 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, 2009, as defined by the Financial Accounting Standard Board, or FASB, Accounting Standard Codification, or 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. To date, the Company has been funded by private equity and debt financings. 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 Company expects to continue to incur substantial losses over the next several years during its 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 and, in the longer term, revenue from product sales.

The accompanying financial statements have been prepared in conformity with accounting principles generally accepted in the United States, or GAAP, which contemplate continuation of the Company as a going concern. During the year ended December 31, 2009, the Company incurred a net loss of \$12,203,492 and had negative cash flows from operations of \$17,172,350. In addition, the Company had an accumulated deficit of \$65,229,952 at December 31, 2009. The Company expects to incur additional operating losses and negative cash flows for the foreseeable future. Failure to generate revenue or raise additional capital would adversely affect the Company's ability to achieve its intended business objectives.

*Going Concern*

The Company has historically incurred losses since inception. Because of these historical losses, the Company will require additional working capital to develop business operations. The Company intends to raise additional working capital through private placements, public offerings, bank financing or advances from related parties or shareholder loans.

**Anthera Pharmaceuticals, Inc.**  
**(A Development Stage Company)**

**NOTES TO FINANCIAL STATEMENTS—(Continued)**

The continuation of the Company's business is dependent upon obtaining further financing and ultimately achieving a profitable level of operations. The issuance of additional equity securities by the Company could result in a significant dilution in the equity interests of the Company's current or future stockholders. Obtaining commercial loans, assuming those loans would be available, will increase liabilities and future cash commitments.

There are no assurances that the Company will be able to either (i) achieve a level of revenues adequate to generate sufficient cash flow from operations; or (ii) obtain additional financing through either private placements, public offerings or bank financing necessary to support the Company's working capital requirements. To the extent that funds generated from operations and any private placements, public offerings or bank financing are insufficient, the Company will have to raise additional working capital. No assurance can be given that additional financing will be available, or if available, will be on terms acceptable to the Company. If adequate working capital is not available, the Company may cease operations.

These conditions raise substantial doubt about the Company's ability to continue as a going concern. The financial statements do not include any adjustments relating to the recoverability and classification of asset carrying amounts or the amount and classification of liabilities that might be necessary should the Company be unable to continue as a going concern.

## **2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

### *Pro Forma Balance Sheet and Net Loss Per Share (unaudited)*

The pro forma balance sheet data presented as of December 31, 2009, reflects the conversion of all outstanding shares of convertible preferred stock as of that date into 8,146,308 shares of common stock, which will occur immediately prior to closing of the proposed initial public offering as if the conversion had occurred on December 31, 2009, and the cashless exercise of warrants for 194,474 shares of common stock prior to the closing of our initial public offering. The pro forma basic and diluted net loss per common share and the pro forma weighted-average number of shares for the year ended December 31, 2009 has been computed to give effect to the conversion of the Company's convertible preferred stock (using the as-if-converted method) into common stock as though the conversion had occurred on the original dates of issuance and the exercise of warrants for common stock which expire upon an initial public offering. The December 31, 2009 balance sheet data also reflects the Company's authorization of 5,000,000 preferred shares upon completion of the initial public offering.

### *Use of Estimates*

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of expenses during the reporting period. Significant estimates include assumptions made in the accrual of clinical costs and stock-based compensation. Actual results could differ from those estimates.

**Anthera Pharmaceuticals, Inc.**  
**(A Development Stage Company)**

**NOTES TO FINANCIAL STATEMENTS—(Continued)**

*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.

*Restricted Cash*

At December 31, 2008, the Company had restricted cash of \$40,000 to collateralize the Company's corporate credit card. The credit card was cancelled in November 2009.

*Concentration of Credit Risk*

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents. The Company's cash equivalents consist of cash, certificates of deposits, and treasury money market funds. The Company has not experienced any losses in such accounts. The Company believes it is not exposed to significant credit risk related to cash and cash equivalents.

*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.

*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 will be charged against the proceeds of the offering once completed.

*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, 2009, the Company had not experienced impairment losses on its long-lived assets.

*Fair Value of Financial Instruments*

The Company adopted the provisions of FASB ASC 820, *Fair Value Measurements and Disclosures*, effective January 1, 2008. FASB ASC 820 defines fair value, establishes a framework for measuring fair value under generally accepted accounting principles and enhances disclosures about fair value measurements.

**Anthera Pharmaceuticals, Inc.**  
**(A Development Stage Company)**

**NOTES TO FINANCIAL STATEMENTS—(Continued)**

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 Topic 820 of the FASB ASC, 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 adoption of this statement did not have a material impact on the Company's results of operations and financial condition.

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



**Anthera Pharmaceuticals, Inc.**  
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**NOTES TO FINANCIAL STATEMENTS—(Continued)**

pharmaceutical development. Research costs typically consist of preclinical and toxicology costs. Clinical development costs include costs for Phase 1 and 2 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 quarterly 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.

*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.

*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.

FASB ASC 740-10 clarifies the accounting for income taxes, by prescribing a minimum recognition threshold a tax position is required to meet before being recognized in the financial statements. It also provides guidance on derecognition, measurement and classification of amounts relating to uncertain tax positions, accounting for and disclosure of interest and penalties, accounting in interim periods, disclosures and transition relating to the adoption of the new accounting standard. FASB ASC 740-10 is effective for fiscal years

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**NOTES TO FINANCIAL STATEMENTS—(Continued)**

beginning after December 15, 2006. The Company adopted FASB ASC 740-10 as of January 1, 2007, as required, and determined that the adoption of FASB ASC 740-10 did not have a material impact on the Company's financial position and results of operations.

*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.

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**(A Development Stage Company)**

**NOTES TO FINANCIAL STATEMENTS—(Continued)**

The following table summarizes the Company's calculation of net loss per common share:

	<b>Years Ended December 31,</b>		
	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>Historical net loss per share</b>			
Numerator			
Net loss . . . . .	\$(25,693,577)	\$(18,099,210)	\$(12,203,492)
Denominator			
Weighted-average common shares outstanding . . . . .	1,174,317	1,573,448	1,623,677
Less: Weighted-average shares subject to repurchase . . . . .	(261,649)	(230,028)	(110,079)
Denominator for basic and diluted net loss per share . . . . .	<u>912,668</u>	<u>1,343,420</u>	<u>1,513,598</u>
Basic and diluted net loss per share . . . . .	<u>\$ (28.15)</u>	<u>\$ (13.47)</u>	<u>\$ (8.06)</u>
<b>Pro forma net loss per share (unaudited):</b>			
Net loss attributed to common stockholders . . . . .			(12,203,492)
Pro forma adjustment . . . . .			<u>—</u>
Net loss used to compute pro forma net loss per share . . . . .			<u>(12,203,492)</u>
<b>Denominator</b>			
Basic and diluted weighted-average common shares, as used above . . . . .			1,513,598
Add: Pro forma adjustments to reflect assumed weighted-average effect of conversion of 8,146,308 shares of convertible preferred stock and the cashless exercise of warrants that are exercisable for 194,474 shares of common stock which expire upon an initial public offering . . . . .			<u>8,340,782</u>
Weighted-average shares used in computing pro forma basic and diluted net loss per common share . . . . .			<u>9,854,380</u>
Pro forma basic and diluted net loss per share . . . . .			<u>\$ (1.24)</u>

The following table shows weighted-average historical dilutive common share equivalents outstanding, which are not included in the above historical calculation, as the effect of their inclusion is anti-dilutive during each period.

	<b>Years Ended December 31,</b>		
	<b>2007</b>	<b>2008</b>	<b>2009</b>
Options to purchase common stock . . . . .	103,322	539,234	932,544
Common stock subject to repurchase . . . . .	261,649	230,028	110,079
Warrants to purchase common stock (1) . . . . .	—	94,230	240,516
Convertible preferred stock (on an as-if-converted basis) . . . . .	<u>4,920,064</u>	<u>6,184,045</u>	<u>8,146,308</u>
	<u>5,285,035</u>	<u>7,047,537</u>	<u>9,429,447</u>

(1) These warrants expire at the earliest of (i) seven years after the issuance date, (ii) the closing of the Company's first initial public offering or (iii) upon consummation by the Company of any consolidation or merger. Each of the warrants contains a customary net issuance feature, which allows the warrant holder to pay the exercise price of the warrant by forfeiting a portion of the executed warrant shares with a value equal to the aggregate exercise.

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*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 estimates the fair value of its share-based payment awards on the date of grant using an option-pricing model.

Prior to January 1, 2006, the Company accounted for stock-based awards to employees and directors using the intrinsic value method. Under the intrinsic value method, stock-based compensation expense was recognized based on the intrinsic value method whereby any difference between exercise price and fair value of the common stock on the date of grant was recognized as stock-based compensation expense ratably over the vesting period. As all employee stock options granted through December 31, 2005 were granted with an exercise price equal to the fair value of the common stock at the date of grant, no expense was recognized through December 31, 2005.

The Company uses the Black-Scholes option-pricing model as the method for determining the estimated fair value of stock options. The Black-Scholes 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 valuation 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 valuation 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 will monitor actual expenses and periodically update 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 are recognized as expense over the related service period.

*Recently Issued Accounting Standards*

In June 2009, the FASB issued FASB ASC 105, *Generally Accepted Accounting Principles*, which establishes the FASB Accounting Standards Codification as the sole source of authoritative generally accepted accounting principles. Pursuant to the provisions of FASB

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ASC 105, the Company has updated references to GAAP in its financial statements issued for the period ended December 31, 2009. The adoption of FASB ASC 105 did not impact the Company's financial position or results of operations.

In June 2008, the FASB issued FASB ASC 815-40, *Derivatives and Hedging*, that provides guidance on how to determine if certain instruments (or embedded features) are considered indexed to a company's own stock, including instruments similar to warrants to purchase the company's stock. FASB ASC 815-40 requires companies to use a two-step approach to evaluate an instrument's contingent exercise provisions and settlement provisions in determining whether the instrument is considered to be indexed to its own stock and therefore exempt from the application of FASB ASC 815. FASB ASC 815-40 became effective January 1, 2009. Any outstanding instrument at the date of adoption requires a retrospective application of the accounting through a cumulative effect adjustment to retained earnings upon adoption. The Company's adoption of this guidance did not have a material impact on either its financial position or results of operations.

**3. DEFERRED FINANCING COST**

At December 31, 2009, the Company capitalized and deferred \$1,922,183 of financing cost attributable to the Company's anticipated initial public offering, which will be charged against the proceeds once the initial public offering is completed.

**4. PROPERTY AND EQUIPMENT**

At December 31, 2008 and 2009, property and equipment consist of the following:

	<b>December 31,</b>	
	<b>2008</b>	<b>2009</b>
Computers and software .....	\$ 64,925	\$ 66,548
Office equipment and furniture .....	16,730	16,730
Total property and equipment .....	81,655	83,278
Less accumulated depreciation .....	(53,876)	(70,284)
Property and equipment, net .....	<b>\$ 27,779</b>	<b>\$ 12,994</b>

Depreciation expense for the years ended December 31, 2007, 2008 and 2009 and for the period from September 9, 2004 (Date of Inception) to December 31, 2009 was \$18,922, \$21,997, \$18,451 and \$72,327, respectively.

**5. COMMITMENTS AND CONTINGENCIES**

*Leases*

The Company leases its office facilities under an operating lease that expires in September 2010. Rent expense for the years ended December 31, 2007, 2008 and 2009 and for the period from September 9, 2004 (Date of Inception) to December 31, 2009, were \$97,314, \$115,506, \$165,016 and \$398,025, respectively. Future minimum payments under the operating lease for the year ending December 31, 2010 are \$70,146.

In addition to the facility lease, the Company leases office equipment under operating lease agreements, which began in 2007 and ends in 2013. Rental expense for the years ended December 31, 2007, 2008 and 2009, and the period from September 9, 2004 (Date of Inception)

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to December 31, 2009, was \$2,910, \$15,216, \$17,129 and \$35,255, respectively. Future minimum payments under the operating lease for the years ending December 31, 2010, 2011, 2012 and 2013 are \$12,750, \$3,120, \$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<sub>2</sub> inhibitors for the treatment of inflammatory diseases. The agreement granted the Company commercialization rights to Shionogi & Co., Ltd.'s and Eli Lilly's sPLA<sub>2</sub> inhibitors, including A-002 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. Additionally, in consideration for the licensed technology, the Company issued 257,744 shares of Series A-2 convertible preferred stock, or Series A-2, at \$5.14 per share and 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. There was no outstanding obligation pursuant to the license agreement in the years ended December 31, 2008 and 2009. The Company is obligated to make additional milestone payments upon the achievement of certain development, regulatory and commercial objectives, which includes a \$1.5 million milestone payment to each party upon the start of a Phase 3 clinical study. The Company amended the milestone payment terms in 2009 with each of Eli Lilly and Shionogi & Co., Ltd. to no later than 12 months from the enrollment of the first patient in a Phase 3 clinical study for A-002. In consideration for the extension, the milestone payments increased to \$1.75 million to each party. (See Note 12).

The Company is also obligated to make additional milestone payments of up to \$5.0 million and 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.

In December 2007, the Company entered into with Amgen Inc., or Amgen, a worldwide, exclusive license agreement, or the Amgen Agreement, to develop and commercialize A-623 for the treatment of systemic lupus erythematosus, or 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 agreement and the second installment due on the earlier of (i) termination of the 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. The outstanding obligation pursuant to the license agreement was \$5.0 million as of December 31, 2008. Pursuant the terms of the

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Amgen Agreement, if the Company fails to make any payment to Amgen under the agreement, interest will accrue on a daily basis equal to 2% above the then applicable prime rate. On October 16, 2009, the Company executed an amendment to the license agreement with Amgen to amend certain terms and conditions, including the terms and conditions on which technology transfer activities, support and assistance would be provided to the Company. Pursuant to the terms of this amendment, the Company paid off the license fee on October 19, 2009. Upon receipt of the license fee payment, \$297,383 of accrued interest was forgiven by Amgen.

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 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.

**6. CONVERTIBLE PROMISSORY NOTES AND EQUITY FINANCING**

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 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.

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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.

On July 17, 2009 and September 9, 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 accrue interest at a rate of 8% per annum and have a maturity date of the earliest of (i) July 17, 2010, (ii) the date of the sale of all or substantially all of the Company's equity interests or assets or (iii) an event of default pursuant to the terms of the 2009 notes. The 2009 notes are automatically convertible into the securities that are sold in the next equity financing at a 25% discount to the price to which such securities are sold to other investors, or they are alternatively convertible into shares of the Company's Series B-2 convertible preferred stock in connection with a change of control of the Company. In addition, if a sale of all or substantially all of the equity interests or assets of the Company should occur prior to the next equity financing and any 2009 note has not been converted, the Company is obligated to pay such 2009 note holder an amount equal to the accrued interest and two times the outstanding principal amount on such note in conjunction with the closing of such sale.

On September 25, 2009, the Company executed a stock purchase agreement, which was amended to add an additional purchaser on November 3, 2009, with certain existing preferred stock holders for the sale of shares of the Company's common stock equal to \$20.5 million divided by the price per share at which shares of the Company's common stock are sold to the public in an initial public offering, minus any per-share underwriting discounts, commissions or fees. 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. Pursuant to the escrow agreement, the funds held in the escrow account will be released simultaneously with the closing of an initial public offering in which the aggregate net proceeds to the Company (after underwriting discounts, commissions and fees) are at least \$50.0 million.

On December 11, 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 notes accrue interest at a rate of 8% per annum and have 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 are automatically convertible into shares of common stock upon the consummation of an initial public offering in which the aggregate net proceeds to the Company (after underwriting discounts, commissions and fees) are at least \$50.0 million, at the price per share at which shares are sold to the public, minus any per-share underwriting discounts, commissions or fees. However, if an initial public offering is not consummated by February 28, 2010, the escrow notes become exchangeable for exchange notes in the same principal amount plus any accrued interest thereon, which are automatically convertible into the securities that are sold in the next equity financing at a 25% discount to the price in which such securities are sold to other investors, or they are alternatively



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convertible into shares of the Company's Series B-2 convertible preferred stock in connection with a change of control of the Company. Furthermore, if a sale of all or substantially all of the equity interests or assets of the Company should occur prior to the next equity financing and any exchange note has not converted, the Company shall pay such exchange note holder an amount equal to the accrued interest and two times the outstanding principal amount on such note in conjunction with the closing of such sale.

**7. CAPITAL STRUCTURE**

**Common Stock**

At December 31, 2008 and 2009, the Company was authorized to issue 17,523,364 and 18,443,341 shares of common stock, respectively, and had reserved the following shares for future issuance:

	<u>December 31, 2008</u>	<u>December 31, 2009</u>
Conversion of Series A-1 convertible preferred stock . . . .	552,530	552,530
Conversion of Series A-2 convertible preferred stock . . . .	1,620,669	1,620,669
Conversion of Series B-1 convertible preferred stock . . . .	2,746,865	2,746,865
Conversion of Series B-2 convertible preferred stock . . . .	3,226,244	3,226,244
Warrants for purchase of common stock . . . . .	240,516	240,516
Common stock options outstanding . . . . .	957,125	1,323,776
Common stock options available for future grant under stock option plan . . . . .	<u>405,311</u>	<u>19,571</u>
Total . . . . .	<u>9,749,260</u>	<u>9,730,171</u>

In November 2004, the Company issued 876,167 shares of restricted common stock to founders of the Company for \$0.001 per share. The restricted common stock vested over a three-year period ending December 31, 2007.

**Convertible Preferred Stock**

At December 31, 2008 and 2009, the Company was authorized to issue the following shares of preferred stock:

	<u>December 31, 2008</u>	<u>December 31, 2009</u>
Shares designated Series A convertible preferred stock . .	—	—
Shares designated Series A-1 convertible preferred stock . . . . .	552,530	552,530
Shares designated Series A-2 convertible preferred stock . . . . .	1,635,514	1,635,514
Shares designated Series B convertible preferred stock . .	5,081,775	—
Shares designated Series B-1 convertible preferred stock . . . . .	2,751,168	2,751,168
Shares designated Series B-2 convertible preferred stock . . . . .	<u>3,606,892</u>	<u>7,009,345</u>
Total authorized shares of preferred stock . . . . .	<u>13,627,879</u>	<u>11,948,557</u>

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The Series A-1 convertible preferred stock, Series A-2 convertible preferred stock, Series B convertible preferred stock, Series B-1 convertible preferred stock and Series B-2 convertible preferred stock are collectively referred to as series preferred. The holders of the series preferred have various rights and privileges. In fiscal year 2005, the Company issued 552,530 shares of Series A convertible preferred stock that was subsequently reclassified into Series A-1 convertible preferred stock, or Series A-1 preferred, at a ratio of 1:1 in fiscal year 2006. In fiscal year 2006, the Company issued 2,746,865 shares of Series B convertible preferred stock that was subsequently reclassified into Series B-1 convertible preferred stock, or Series B-1 preferred, at a ratio of 1:1 in fiscal year 2008. In fiscal 2008, the Company issued 3,226,244 shares of Series B-2 convertible preferred stock.

*Voting*

Each holder of shares of the series preferred is entitled to the number of votes equal to the number of shares of common stock into which such shares of series preferred could be converted and have equal voting rights and powers of the common stock.

*Dividend Rights*

Holders of series preferred, in preference to the holders of common stock, are entitled to receive, when and as declared by the board of directors, but only out of funds that are legally available, cash dividends at the rate of 7% of the original issuance price per annum on each outstanding share of series preferred. The original issuance prices for Series A-1 preferred, Series A-2 convertible preferred stock, or Series A-2 preferred, Series B-1 preferred and Series B-2 convertible preferred stock, or Series B-2 preferred, were \$1.47, \$5.14, \$7.28 and \$7.28 per share, respectively. Such dividends are payable only when, as and if declared by the board of directors and are noncumulative.

*Conversion*

Holders of series preferred are entitled, at any time, to cause their shares to be converted into fully paid and nonassessable shares of common stock. The conversion rate in effect at any time for conversion of each series of series preferred is determined by dividing (i) the original issuance price of the series preferred with respect to such series by (ii) the applicable series preferred conversion price. The conversion price of the series preferred is the original issue price for such series (subject to adjustment). Additionally, the preferred stock will automatically convert into shares of common stock based on the then-effective series preferred conversion price (i) at any time upon the affirmative election of the holders of at least two-thirds of the outstanding shares of preferred stock, or (ii) immediately upon the closing of a public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offer and sale of common stock for the account of the Company in which the valuation of the Company, before giving effect to such offering, is at least \$200.0 million and the aggregate proceeds to the Company (after underwriting discounts, commission and fees) are at least \$50.0 million. Upon such automatic conversion, any declared and unpaid dividends are payable in cash to the preferred shareholders.

*Liquidation*

Upon any liquidation, dissolution, or winding up of the Company, whether voluntary or involuntary, a Liquidation Event, before any distribution or payment is made to holders of

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common stock, the holders of series preferred are entitled to be paid, with equal priority and pro rata, out of the assets of the Company legally available for distribution, or the consideration received in such transaction, for each share of series preferred held by them, an amount equal to the original issuance price per share, plus all accrued or declared but unpaid dividends (appropriately adjusted for any stock dividend, stock split, recapitalization and the like). After payment of the full liquidation preference of the series preferred, the remaining assets of the Company, if any, shall be distributed ratably to the holders of the common stock, our Series A-2 preferred, Series B-1 preferred and Series B-2 preferred stockholders, on an as-converted-to-common-stock basis, until such time as such holders of Series A-2 preferred, Series B-1 preferred and Series B-2 preferred have received a distribution equal to three-and-a-half times the original issue price of such series. If there are still assets left to be distributed by the Company, then the remaining assets shall be distributed ratably to the holders of the common stock.

*Redemption*

Shares of series preferred are not redeemable by the Company.

**Warrants**

In August 2008, in connection with the issuance of Series B-2 preferred, the Company issued 240,516 warrants to two new investors for the purchase of common stock at \$1.34 per share. The warrants expire at the earliest of (i) seven years from the issuance date, (ii) the closing date of the Company's first initial public offering or (iii) upon consummation by the Company of any consolidation or merger. The Company valued the warrants using the Black-Scholes valuation 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 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.

In connection with the issuance of the 2009 notes discussed in Note 6, the Company issued warrants to each note holder to purchase shares of 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 accounts for the 2009 warrants in accordance with FASB ASC 480, 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. The Company measured the fair value of its warrant liability on the date of issuance of the 2009 notes using the Black-Scholes valuation 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 conversion

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scenarios and calculated the fair value of the 2009 warrants to be \$320,000, which amount was recorded as a discount to the 2009 notes. The discount is amortized as interest expense over the terms of the 2009 notes. The Company will re-measure the fair value of its warrant liability at each subsequent reporting period until the number of shares underlying the warrants and the exercise price become known. Changes in the fair value of the 2009 warrants will be recognized as non-operating income or expense. For the year ended December 31, 2009, the Company re-measured the fair value of its warrant liability and adjusted the liability to \$319,285.

In connection with the issuance of the escrow notes, which are exchangeable for exchange notes, each exchange note that is issued will be accompanied by a warrant, which is exercisable for the security into which the accompanying exchange note, if any, is converted, at the price at which that security is 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, 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. The Company measured the fair value of its derivative using the Black-Scholes valuation 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 is amortized as interest expense over the terms of the escrow notes. The Company will re-measure the fair value of its derivative at each subsequent reporting period until the number of shares of warrants and the exercise price become known. Changes in the fair value of the warrants will be recognized as non-operating income or expense.

## **8. STOCK OPTIONS**

### *Option Plan*

The Company's 2005 Equity Incentive Plan, or the 2005 Equity Plan, was adopted by the board of directors in January 2005. The 2005 Equity 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 Equity 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 Equity 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 Equity 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

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**NOTES TO FINANCIAL STATEMENTS—(Continued)**

outstanding. Option activity in the table below includes options exercised prior to vesting. At December 31, 2008 and 2009, 161,646 and 69,424 shares were subject to repurchase with a corresponding liability of \$56,715 and \$31,131, respectively.

The following table summarizes stock option activity for the Company:

	<u>Shares Available for Grant</u>	<u>Number of Options</u>	<u>Weighted-Average Exercise Price</u>	<u>Weighted-Average Remaining Contractual Life in Years</u>
Balance at September 9, 2004 (Date of Inception)				
Shares authorized	248,247	—		
Options granted	(187,202)	187,202	\$0.14	
Options exercised	—	(33,292)	\$0.14	
Balance at December 31, 2005	61,045	153,910	\$0.14	8.42
Shares authorized	1,285,047	—		
Options granted	(65,998)	65,998	\$0.14	
Options exercised	—	(125,581)	\$0.14	
Balance at December 31, 2006	1,280,094	94,327	\$0.14	6.89
Shares authorized	292,056	—		
Options granted	(1,339,655)	1,339,655	\$0.26	
Options exercised	—	(493,605)	\$0.25	
Options cancelled	92,642	(92,642)	\$0.24	
Balance at December 31, 2007	325,137	847,735	\$0.26	8.08
Shares authorized	350,467	—		
Options granted	(327,973)	327,973	\$1.34	
Options exercised	—	(179,886)	\$0.38	
Options cancelled	38,697	(38,697)	\$0.42	
Repurchase	18,983	—	\$0.26	
Balance at December 31, 2008	405,311	957,125	\$0.60	8.28
Options granted	(405,358)	405,358	\$1.69	
Options exercised	—	(19,089)	\$0.80	
Options cancelled	19,618	(19,618)	\$0.92	
Balance as of December 31, 2009	<u>19,571</u>	<u>1,323,776</u>	\$0.92	7.94
Ending Vested as of December 31, 2009		979,452	\$0.78	7.71
Ending Vested and Expected to Vest as of December 31, 2009		1,323,776	\$0.92	7.94

The grant date total fair value of employee options vested during the years ended December 31, 2007, 2008 and 2009 was \$95,439, \$113,166 and \$358,121, respectively. The total intrinsic value of options exercised during the years ended December 31, 2007, 2008 and 2009 was \$5,390, \$109,741 and \$13,550, respectively. Total proceeds received for options exercised during years ended December 31, 2008 and 2009 was \$68,105 and \$15,274, respectively.

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**NOTES TO FINANCIAL STATEMENTS—(Continued)**

Information about stock options outstanding, vested and expected to vest as of December 31, 2009, is as follows:

<u>Outstanding, Vested and Expected to Vest</u>			<u>Options Vested</u>	
<u>Exercise Price</u>	<u>Number of Shares</u>	<u>Weighted-Average Remaining Contractual Life (in Years)</u>	<u>Exercise Price</u>	<u>Number of Shares</u>
\$0.14	33,584	6.22	\$0.14	31,637
\$0.26	603,162	7.15	\$0.26	577,354
\$1.34	300,776	8.16	\$1.34	146,231
\$1.51	374,572	9.14	\$1.51	212,548
\$7.70	11,682	9.78	\$7.70	11,682
	<u>1,323,776</u>	7.94		<u>979,452</u>

*Early Exercise of Employee Options*

Stock options granted under the Company's stock option plan provide employee option holders the right to elect to exercise unvested options in exchange for restricted common stock. Unvested shares, which amounted to 161,646 and 69,424 at December 31, 2008 and 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 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 periods ended December 31, 2008 and 2009, cash received for early exercise of options totaled to \$30,953 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 unvested shares for the year ended December 31, 2009 as a result of early exercise of options granted to employees is as follows:

<u>Unvested Shares</u>	<u>Shares</u>	<u>Weighted-Average Grant Price</u>
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 .....	<u>69,424</u>	<u>\$0.45</u>

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**NOTES TO FINANCIAL STATEMENTS—(Continued)**

*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, 2009
	2007	2008	2009	
Research and development .....	\$44,066	\$ 45,544	\$101,395	\$194,002
General and administrative .....	30,795	97,862	152,569	282,877
Total stock-based compensation .....	<u>\$74,861</u>	<u>\$143,406</u>	<u>\$253,964</u>	<u>\$476,879</u>

As of December 31, 2007, 2008 and 2009, total compensation cost related to unvested stock options not yet recognized was \$161,996, \$330,381 and \$456,288, which is expected to be allocated to expenses over a weighted-average period of 2.25, 2.33 and 2.25 years, respectively.

The assumptions used in the Black-Scholes option-pricing model for the years ended December 31, 2007, 2008 and 2009, and for the period from September 9, 2004 (Date of Inception) to December 31, 2009, are as follows:

	Years Ended December 31,			Period from September 9, 2004 (Date of Inception) to December 31, 2009
	2007	2008	2009	
Expected Volatility .....	81%	81%	74%	80%
Dividend Yield .....	0%	0%	0%	0%
Risk-Free Interest Rate .....	4.54%	3.08%	2.10%	3.96%
Expected Term (years) .....	6.25	6.25	6.25	6.25

The weighted-average grant date fair values of stock options granted during the years ended December 31, 2007, 2008 and 2009, and for the period from September 9, 2004 (Date of Inception) to December 31, 2009 were \$0.17, \$0.96, \$1.01 and \$0.44 per share, respectively.

*Nonemployee Stock-Based Compensation*

The Company accounts for stock options granted to nonemployees as required by the Equity Topic of the FASB ASC. In connection with stock options granted to consultants, the Company recorded \$12,489, \$51,874, \$88,382 and \$157,945 for nonemployee stock-based compensation during the years ended December 31, 2007, 2008 and 2009, and for the period from September 9, 2004 (Date of Inception) to December 31, 2009, respectively. These amounts were based upon the fair value of the vested portion of the grants.

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The assumptions used in the Black-Scholes option-pricing model for the years ended December 31, 2007, 2008 and 2009, and for the period from September 9, 2004 (Date of Inception) to December 31, 2009, are as follows:

	Years Ended December 31,			Period from September 9, 2004 (Date of Inception) to
	2007	2008	2009	December 31, 2009
Expected Volatility .....	98%	98%	98%	98%
Dividend Yield .....	0%	0%	0%	0%
Risk-Free Interest Rate .....	4.40%	3.67%	3.57%	3.69%
Expected Term (years) .....	10.00	9.26	9.94	9.71

Amounts expensed during the remaining vesting period will be determined based on the fair value at the time of vesting.

**9. 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.

**10. 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, 2008 and 2009 are as follows:

	December 31,	
	2008	2009
Deferred tax assets:		
Net operating loss carryforwards .....	\$ 15,550,186	\$ 20,254,375
Tax credits .....	2,158,679	2,378,197
Intangible assets .....	3,545,262	3,279,699
Accrued bonus .....	46,226	61,040
Accrued liabilities .....	133,486	91,529
Stock-based compensation .....	12,913	68,439
Other .....	1,366	5,828
Total deferred tax assets .....	21,448,118	26,139,107
Deferred tax liabilities .....	—	—
Valuation allowance .....	(21,448,118)	(26,139,107)
Net deferred tax asset .....	\$ —	\$ —



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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, 2007, 2008 and 2009 is as follows:

	<u>2007</u>	<u>2008</u>	<u>2009</u>
Statutory rate . . . . .	34%	34%	34%
State tax . . . . .	7%	5%	6%
Tax credit . . . . .	5%	2%	1%
Beneficial conversion feature . . . . .	0%	(8)%	0%
Other . . . . .	0%	0%	(3)%
Valuation allowance . . . . .	(46)%	(33)%	(38)%
Effective tax rates . . . . .	<u>0%</u>	<u>0%</u>	<u>0%</u>

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 \$5,935,955 and \$4,690,989 for the years ended December 31, 2008 and 2009, and \$26,139,107 for the period from September 9, 2004 (Date of Inception) to December 31, 2009.

Net operating losses and tax credit carryforwards as of December 31, 2009, are as follows:

	<u>Amount</u>	<u>Expiration Years</u>
Net operating losses—federal . . . . .	\$50,815,735	Beginning 2024
Net operating losses—state . . . . .	\$51,025,382	Beginning 2014
Tax credits—federal . . . . .	\$ 2,396,967	Beginning 2024
Tax credits—state . . . . .	\$ 1,172,671	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.

The Company accounts for income taxes in accordance with FASB ASC 740, *Income Taxes*, and adopted the provisions of FASB ASC 740-10 on January 1, 2007. As a result of the implementation of FASB ASC 740-10, the Company did not record any changes to the liability for unrecognized tax benefits related to tax positions taken in prior periods, and no corresponding change in accumulated deficit was recorded. At the adoption date of January 2, 2007, the Company had \$80,000 unrecognized tax benefits, none of which would affect its income tax expense if recognized to the extent the Company continues to maintain a full valuation allowance against its deferred tax assets.

As of December 31, 2009, the Company had unrecognized tax benefits of \$892,410, 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

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**NOTES TO FINANCIAL STATEMENTS—(Continued)**

December 31, 2009. A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

	<u>Amount</u>
Balance as January 1, 2007 .....	\$ 79,855
Additions based on tax positions related to current year .....	<u>566,326</u>
Balance as December 31, 2007 .....	646,181
Additions based on tax positions related to current year .....	<u>162,381</u>
Balance as of December 31, 2008 .....	808,562
Additions based on tax positions related to current year .....	<u>83,848</u>
Balance as of December 31, 2009 .....	<u><u>892,410</u></u>

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, 2009. The tax years 2004 through 2009 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 2009.

**11. RELATED PARTY TRANSACTIONS**

For the years ended December 31, 2007, 2008 and 2009, and for the period from September 9, 2004 (Date of Inception) to December 31, 2009, the Company paid \$71,100, \$22,200, \$38,274 and \$131,574, respectively, for clinical management services rendered by an outside organization where one of the founders is employed.

**12. EVENTS SUBSEQUENT TO DECEMBER 31, 2009**

On January 28, 2010, Eli Lilly and the Company entered into an agreement in which the parties agreed that the \$1.75 million milestone payment due to Eli Lilly no later than 12 months from the enrollment of the first patient in a Phase 3 clinical study for A-002 will be paid in the form of shares of the Company's common stock issued at the price per share at which shares are sold to the public in an initial public offering, minus any per-share underwriting discounts, commissions or fees. The Company is obligated to issue such shares to Eli Lilly within 10 business days after the closing of an initial public offering.

On November 8, 2009, the Company's board of directors approved a 1 -for- 1.712 reverse split of the Company's common stock that was effected on February 22, 2010. The financial statements for the period from September 9, 2004 (Date of Inception) to December 31, 2009 give retroactive effect to the reverse split.

On February 24, 2010, Shionogi & Co., Ltd. and the Company entered into an agreement in which the parties agreed that the \$1.75 million milestone payment due to Shionogi & Co., Ltd. no later than 12 months from the enrollment of the first patient in a Phase 3 clinical study for A-002 will be paid in the form of shares of the Company's common stock issued at the price per share at which shares are sold to the public in the initial public offering, minus any per-share underwriting discounts, commissions or fees. The shares will be issued within 10 business days after the closing of this offering.

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**NOTES TO FINANCIAL STATEMENTS—(Continued)**

On February 24, 2010, the Company amended the September 2009 stock purchase agreement and escrow agreement to provide that the \$17.1 million of funds held in the escrow account will be released simultaneously with the closing of an initial public offering in which the aggregate net proceeds to the Company (after underwriting discounts, commissions and fees) are at least \$20.0 million.

On February 24, 2010, the holders of escrow notes issued in December 2009 waived their right to exchange the escrow notes for exchange notes and warrants unless an initial public offering is not consummated by March 31, 2010. In addition, on February 24, 2010, the Company amended the December 2009 note purchase agreement to provide that the escrow notes are automatically convertible into shares of common stock upon the consummation of an initial public offering in which the aggregate net proceeds to the Company (after underwriting discounts, commissions and fees) are at least \$20.0 million.

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