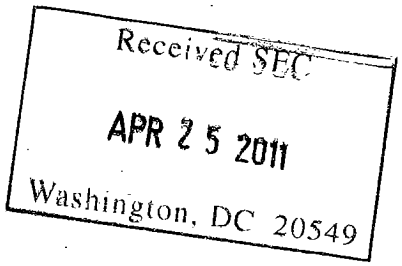


SUNESIS

Letter to Stockholders

o

2011 Annual Meeting of Stockholders
Notice and Proxy Statement

o

2010 Annual Report on Form 10-K

Dear Fellow Stockholders,

By all accounts, 2010 represented a landmark year for Sunesis. The highlight of the year was clearly the launch of our pivotal Phase 3 trial of vosaroxin in acute myeloid leukemia (AML), known as the VALOR trial, which catapulted Sunesis from a mid-stage, development-focused company to a late-stage development organization with a well-defined path to market. With substantive progress across all aspects of the business, from our clinical and regulatory initiatives to our intellectual property and financial strength, we are building on the compelling data seen to date in the vosaroxin program and providing a foundation for success through 2011 and beyond.

We are focusing our development efforts on vosaroxin, and our business strategy recognizes the significant potential for this first-in-class compound across a broad range of hematologic and solid tumor cancers. Unique chemical properties afford it distinct potential advantages over other leading treatment standards, namely low potential for cardiotoxicity and drug-drug interactions, as well as observed efficacy in anthracycline-resistant cancers. Our initial target indication, AML, represents a logical first step in our registration strategy for vosaroxin; AML treatment standards have not evolved appreciably in more than 30 years, and vosaroxin is well-positioned to potentially transform the treatment landscape by significantly extending patients' lives. Over the long-term, there is the opportunity to expand our clinical program by building on the positive vosaroxin data that we have seen in solid tumors, such as in breast and ovarian cancers.

In April 2011, we announced a license agreement with Millennium Pharmaceuticals for the development of a competitively-positioned oral, selective pan-Raf kinase inhibitor and an additional kinase inhibitor program in oncology that were previously part of our 2004 multi-kinase collaboration with Biogen Idec, which recently announced a new strategic focus. The new agreement with Millennium allows for the near-term development of these programs under the stewardship of a premier oncology-focused organization. Our collaboration with Biogen Idec related to the development of kinase inhibitors for immunology applications under our existing collaboration is continuing.

We achieved a number of critical objectives in 2010 and in early 2011 that have helped maximize the clinical and commercial potential for vosaroxin and our pipeline in both the near- and long-term.

Established Regulatory Pathway for Vosaroxin in AML. An important element of our development strategy for vosaroxin in AML is executing a Phase 3 trial that would clearly support registration in multiple markets. To that end, we met with both the U.S. Food and Drug Administration (FDA) and the European Medicines Agency (EMA) to gain consensus on our Phase 3 trial design, providing development clarity as we proceeded with our pivotal program in AML. Given our positive interactions with key regulatory agencies, we believe that data from the VALOR trial, if positive, would provide a clear path to approval in these key markets. In addition, in February of this year, the FDA granted Fast Track designation to vosaroxin in relapsed or refractory AML, allowing for the possibility of a "rolling submission" and providing eligibility for a priority review period, thereby streamlining the regulatory process for vosaroxin in the U.S. Further, if vosaroxin is approved in the U.S. for the treatment of AML, we will be entitled to seven years of marketing exclusivity due to vosaroxin's Orphan Drug Status, which greatly enhances the commercial potential of vosaroxin in this indication.

Launched the VALOR trial, a Pivotal Phase 3 Study of Vosaroxin in AML. In December 2010, we launched the VALOR trial, a randomized, double-blind, placebo-controlled study of vosaroxin plus cytarabine, a widely used chemotherapy compared to placebo plus cytarabine in relapsed/refractory AML. With a primary endpoint of overall survival — the gold standard in oncology trials, this rigorous study is set to provide a clear understanding of vosaroxin's clinical benefit in the relapsed/refractory setting. The VALOR trial also employs an adaptive design that allows for a one-time adjustment to trial size to maintain statistical power. This feature offers a strategic advantage for Sunesis, improving our chances of demonstrating a statistically significant and successful trial across a broader range of survival outcomes. We expect to enroll approximately 450 evaluable patients at leading sites across the U.S., Canada, Europe, Australia and New Zealand. We initiated the trial in December 2010 and are pleased with the trial's progress to date. An interim analysis by a Data and Safety Monitoring Board (DSMB) is expected in mid-2012, with data expected to follow in 2013.

Strengthened Intellectual Property Position for Vosaroxin. Concurrent with our clinical progress, we are pursuing a deliberate and sophisticated strategy intended to provide exclusive coverage in the vosaroxin patent estate to 2030. Since the beginning of 2010, we received important U.S. and European patents covering pharmaceutical compositions, including the current clinical formulation, of vosaroxin, as well as a European patent covering the combination of vosaroxin plus cytarabine. Beyond our granted patents that provide protection now to 2025 in the U.S. and Europe, we have filed patent applications covering formulations, combination uses, dosing, manufacturing processes and composition of matter claims in multiple territories around the world.

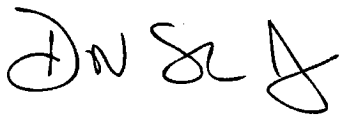
Presented Compelling Phase 2 AML Data, Underscoring Vosaroxin's Potential. During the year, we presented data from our Phase 2 trials in AML, demonstrating vosaroxin's clinical benefit for patients with limited treatment options. In Phase 2 clinical trials evaluating vosaroxin in combination with cytarabine in relapsed/refractory AML and as a single agent in frontline elderly AML, vosaroxin produced impressive, clinically-meaningful and durable remission rates balanced with low-all cause induction mortality. The data in the relapsed/refractory setting is particularly compelling; as presented in November 2010 and based on 69 patients, preliminary leukemia-free survival, measured as time from complete remission to relapse or death, stood at 14.4 months and median overall survival at 7.1 months, with 12 patients in survival follow-up well beyond this median and 2 patients having exceeded the two-year follow-up milestone. This strong data set served as the basis for our decision to advance vosaroxin into a pivotal Phase 3 study evaluating the combination of vosaroxin plus cytarabine in the relapsed/refractory AML indication.

Formed New Oncology Collaboration with Millennium. In April 2011, as noted above, we announced a license agreement with Millennium Pharmaceuticals for the development of an oral pan-Raf kinase inhibitor and an additional undisclosed kinase inhibitor program in oncology. We received a $4 million upfront payment from Millennium, and we continue to be eligible to receive up to $60 million in pre-commercial milestone payments for each collaboration product, as well as royalties on sales of collaboration products. In addition, the agreement includes future development and co-promotion rights for Sunesis. We expect Millennium to advance the pan-Raf kinase program into a Phase 1 trial in 2011.

Secured Financial Resources to Fund the VALOR Trial. A key initiative during 2010 was strengthening our balance sheet and securing the resources to execute our clinical development strategy in AML. In October 2010, we raised net proceeds of $14.2 million through an underwritten offering, bolstering our financial reserves and bringing our year-end cash position to approximately $53 million. With our current cash position and other available resources, we are well-positioned to fund operations through the planned unblinding of the VALOR trial in 2013, although additional capital will be required if the one-time adjustment to trail size is triggered following the interim analysis by the DSMB.

We have made considerable progress on multiple fronts in the last year, and we expect that these accomplishments will translate into additional value for our stockholders as the vosaroxin, pan-Raf and additional kinase inhibitor programs mature. We thank our employees and stockholders for their continued support, and we remain committed to our mission of delivering vosaroxin and other innovative treatments to cancer patients in desperate need of new, more effective therapies.

Sincerely,



Daniel N. Swisher, Jr.
Chief Executive Officer and President

This letter contains forward-looking statements, including, without limitation, statements related to the efficacy, safety profile and commercial potential of vosaroxin, the design, conduct and results of the VALOR trial, the efficacy and commercial potential of the kinase inhibitor assets that are the subject of Sunesis' collaboration arrangement with Millennium Pharmaceuticals, Inc. and the potential benefits to Sunesis from such arrangement, and the sufficiency of Sunesis' cash resources and its ability to raise additional funding when needed on favorable terms or at all. Words such as "believe," "continue," "expect," "intend," "positive," "potential," "well-positioned," "will," "would" and similar expressions are intended to identify forward-looking statements. These forward-looking statements are based upon Sunesis' current expectations. Forward-looking statements involve risks and uncertainties. Sunesis' actual results and the timing of events could differ materially from those anticipated in such forward-looking statements as a result of these risks and uncertainties, which include, without limitation, risks related to Sunesis' need for substantial additional funding to complete the development and commercialization of vosaroxin, risks related to Sunesis' ability to raise the capital that it believes to be accessible and is required to fully finance the VALOR trial until its planned unblinding in 2013, the risk that Sunesis' development activities for vosaroxin could be otherwise halted or significantly delayed for various reasons, the risk that Sunesis' clinical studies for vosaroxin may not demonstrate safety or efficacy or lead to regulatory approval, the risk that data to date and trends may not be predictive of future data or results, the risk that Sunesis' nonclinical studies and clinical studies may not satisfy the requirements of the FDA or other regulatory agencies, risks related to the conduct of Sunesis' clinical trials, risks related to the manufacturing of vosaroxin and supply of the active pharmaceutical ingredients required for the conduct of the VALOR trial, the risk of third party opposition to granted patents related to vosaroxin, and the risk that Sunesis' proprietary rights may not adequately protect vosaroxin. These and other risk factors are discussed under "Risk Factors" and elsewhere in Sunesis' Annual Report on Form 10-K for the year ended December 31, 2010 and other filings with the Securities and Exchange Commission. Sunesis expressly disclaims any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in the company's expectations with regard thereto or any change in events, conditions or circumstances on which any such statements are based.

sunesis

SUNESIS PHARMACEUTICALS, INC.
395 Oyster Point Boulevard, Suite 400
South San Francisco, CA 94080

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
To be held on June 3, 2011

To the Stockholders of Sunesis Pharmaceuticals, Inc.:

The 2011 annual meeting of stockholders of Sunesis Pharmaceuticals, Inc. will be held on Friday, June 3, 2011 at 10:00 a.m., local time, at our headquarters located at 395 Oyster Point Boulevard, Suite 400, South San Francisco, California, 94080 for the following purposes:

1. To elect three directors nominated by the board of directors to serve until the 2014 annual meeting of stockholders, as described in the accompanying proxy statement.
2. To ratify the selection of Ernst & Young LLP as the independent registered public accounting firm of Sunesis for the year ending December 31, 2011.
3. To approve the Sunesis Pharmaceuticals, Inc. 2011 Equity Incentive Plan.
4. To approve the Sunesis Pharmaceuticals, Inc. 2011 Employee Stock Purchase Plan.
5. To transact any other business that may properly come before the annual meeting or any adjournment or postponement thereof.

These items of business are more fully described in the proxy statement accompanying this notice. The record date for the annual meeting is April 6, 2011. Only stockholders of record at the close of business on that date are entitled to notice of and to vote at the annual meeting and any adjournment or postponement thereof.

Please see the map at *www.sunesis.com/site/contact_us.php* for directions to our headquarters. We look forward to seeing you at the annual meeting.

By Order of the board of directors,

Eric Bjerkholt

South San Francisco, California
April 21, 2011

Eric H. Bjerkholt
Senior Vice President, Corporate Development and Finance, Chief Financial Officer and Corporate Secretary

You are cordially invited to attend the annual meeting in person. Whether or not you expect to attend the annual meeting, please vote as promptly as possible in order to ensure your representation at the annual meeting. You may vote your shares over the telephone or the Internet as instructed in these materials. If you received a proxy card or voting instruction card by mail, you may submit your proxy card or voting instruction card by completing, signing, dating and mailing your proxy card or voting instruction card in the envelope provided. Even if you have voted by proxy, you may still vote in person if you attend the annual meeting. Please note, however, that if your shares are held of record by a broker, bank or other nominee and you wish to vote at the annual meeting, you must obtain a proxy issued in your name from that record holder.

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting of Stockholders to be Held at 10:00 a.m., Pacific Time, on Friday, June 3, 2011 at Sunesis Pharmaceuticals, Inc. located at 395 Oyster Point Boulevard, Suite 400, South San Francisco, CA 94080.

The proxy statement and annual report to stockholders are available at https://materials.proxyvote.com/867328.

The board of directors recommends that you vote "For" each of the proposals identified above.

TABLE OF CONTENTS

INFORMATION CONCERNING SOLICITATION AND VOTING		1
PROPOSAL NO. 1	ELECTION OF NOMINEES TO THE BOARD OF DIRECTORS	7
PROPOSAL NO. 2	RATIFICATION OF SELECTION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM	11
PROPOSAL NO. 3	APPROVAL OF THE SUNESIS PHARMACEUTICALS, INC. 2011 EQUITY INCENTIVE PLAN	12
PROPOSAL NO. 4	APPROVAL OF THE SUNESIS PHARMACEUTICALS, INC. 2011 EMPLOYEE STOCK PURCHASE PLAN	24
INFORMATION ABOUT THE BOARD OF DIRECTORS AND CORPORATE GOVERNANCE		29
CERTAIN INFORMATION WITH RESPECT TO EXECUTIVE OFFICERS		40
EXECUTIVE COMPENSATION AND RELATED INFORMATION		41
INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM		50
CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS		51
SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT		54
OTHER INFORMATION		58
OTHER MATTERS		59

Proxy Statement

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SUNESIS PHARMACEUTICALS, INC.
PROXY STATEMENT FOR THE 2011 ANNUAL MEETING OF STOCKHOLDERS

JUNE 3, 2011

INFORMATION CONCERNING SOLICITATION AND VOTING

General

This proxy statement is furnished to our stockholders in connection with the solicitation of proxies by the board of directors of Sunesis Pharmaceuticals, Inc., which we sometimes refer to herein as the Company, Sunesis or we, for our 2011 annual meeting of stockholders, or Annual Meeting, to be held on June 3, 2011, and any adjournment, continuation or postponement thereof, for the purposes set forth in the attached Notice of Annual Meeting of Stockholders. Our principal executive office is located at 395 Oyster Point Boulevard, Suite 400, South San Francisco, California 94080.

A copy of our Annual Report on Form 10-K for the year ended December 31, 2010 and this proxy statement and the accompanying proxy card are first being distributed and made available to stockholders on or about April 21, 2011. This proxy statement contains important information for you to consider when deciding how to vote on the matters brought before the Annual Meeting. Please read it carefully.

We are providing stockholders of record who are holding shares in their own name and stockholders who have previously requested to receive paper copies of our proxy materials with paper copies of our proxy materials. We intend to mail the full sets of proxy materials to the stockholders described in the previous sentence on or about April 21, 2011. Pursuant to rules adopted by the U.S. Securities and Exchange Commission, or SEC, we have elected to provide access to our proxy materials over the Internet to beneficial owners whose stock is held in street name, as further described below. Accordingly, we are sending a Notice of Internet Availability of Proxy Materials, or the Notice, to such stockholders. The Notice is not a voting form; however, the Notice provides instructions on how to vote by Internet, by telephone, by requesting and returning a paper proxy card or by voting in person at the Annual Meeting. All stockholders will have the ability to access the proxy materials on the website referred to in the Notice or request to receive a printed set of the proxy materials. Instructions on how to access the proxy materials over the Internet or to request a printed copy may be found in the Notice.

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. Choosing to receive future proxy materials electronically will allow us to provide you with the information you need in a timelier manner, will save us the cost of printing and mailing documents to you and will conserve natural resources.

Note Regarding Reverse Stock Split

On February 14, 2011, we effected a one-for-six reverse split of our capital stock, or the Reverse Split, as previously authorized and approved at the annual meeting of stockholders on June 2, 2010. As a result of the Reverse Split, every six shares of capital stock were combined into one share of capital stock. The Reverse Split

affected all of our common stock outstanding immediately prior to the effective time of the Reverse Split as well as the number of shares of common stock available for issuance under our equity incentive plans. In addition, the Reverse Split effected a reduction in the number of shares of common stock issuable upon the exercise of outstanding stock options and warrants. All share amounts and prices included in this proxy statement give retroactive effect to the Reverse Split.

Solicitation

The expenses of preparing, printing and distributing the materials used in the solicitation of proxies on behalf of the board of directors will be borne by us. In addition to the solicitation of proxies by use of the mail, we may utilize the services of certain of our officers and employees (who will receive no compensation in addition to their regular salaries) to solicit proxies personally and by mail, telephone and electronic means from brokerage houses and other stockholders. We have retained Broadridge Investor Communication Services, or Broadridge, to aid in the distribution of proxies and the provision of telephone and Internet voting services, which will be paid by us. We may also reimburse brokerage firms, banks and other agents for the cost of forwarding proxy materials to beneficial owners.

Voting Rights and Outstanding Shares

Our common stock is the only type of security entitled to vote at the Annual Meeting. Each share of common stock entitles the holder of record thereof at the close of business on April 6, 2011 to notice of, and to vote on, each of the matters to be voted upon at the Annual Meeting. On each matter to be voted upon, you have one vote for each share of common stock you own as of April 6, 2011. There are no statutory or contractual rights of appraisal or similar remedies available to those stockholders who dissent from any matter to be acted on at the Annual Meeting. Cumulative voting is not available and each share of common stock is entitled to one vote per share of common stock.

If on April 6, 2011 your shares were registered directly in your name with our transfer agent, American Stock Transfer & Trust Company, then you are a stockholder of record. As a stockholder of record, you may vote in person at the Annual Meeting or vote by proxy. Whether or not you plan to attend the Annual Meeting, we urge you to fill out and return the enclosed proxy card or vote by proxy over the telephone or on the Internet as instructed below to ensure your vote is counted.

If on April 6, 2011 your shares were held, not in your name, but rather in an account at a brokerage firm, bank, dealer or other similar organization, then you are the beneficial owner of shares held in "street name" and the Notice or voting instructions are being forwarded to you by that organization. The organization holding your account is considered to be the stockholder of record for purposes of voting at the Annual Meeting. As a beneficial owner, you have the right to direct your broker or other agent regarding how to vote the shares in your account. You are also invited to attend the Annual Meeting. However, since you are not the stockholder of record, you may not vote your shares in person at the Annual Meeting unless you request and obtain a valid proxy from your broker or other agent.

If you return your signed proxy card to us or otherwise vote before the Annual Meeting, we will vote your shares as you direct. If you are a stockholder of record, all shares represented by valid proxies (and not revoked before they are voted) will be voted at the Annual Meeting as follows, unless there are different instructions on the proxy:

- Proposal No. 1: "For" the election of three directors nominated by the board of directors to serve until the 2014 annual meeting of stockholders;

- Proposal No. 2: "For" the ratification of the selection of Ernst & Young LLP as our independent registered public accounting firm for the year ending December 31, 2011;

- Proposal No. 3: "For" the approval of the Sunesis Pharmaceuticals, Inc. 2011 Equity Incentive Plan;

- Proposal No. 4: "For" the approval of the Sunesis Pharmaceuticals, Inc. 2011 Employee Stock Purchase Plan; and

- At the proxyholder's discretion, on such other matters, if any, that may come before the Annual Meeting.

If you are a beneficial owner of shares held in "street name" and you do not provide the organization that holds your shares with specific instructions, under the rules of various national and regional securities exchanges, the organization that holds your shares may generally vote on routine matters but cannot vote on non-routine matters, as further described below. If the organization that holds your shares does not receive instructions from you on how to vote your shares on a non-routine matter, the organization that holds your shares will inform our inspector of elections that it does not have the authority to vote on this matter with respect to your shares. This is generally referred to as a "broker non-vote." When our inspector of elections tabulates the votes for any particular matter, broker non-votes will be counted for purposes of determining whether a quorum is present, but will not be counted toward the vote total for any proposal. We encourage you to provide voting instructions to the organization that holds your shares to ensure that your vote is counted on all proposals.

The board of directors knows of no other matters that will be presented for consideration at the Annual Meeting. If any other business is properly brought before the Annual Meeting or any adjournment or postponement thereof and submitted to a vote of stockholders, proxies will be voted in accordance with the best judgment of the designated proxyholder.

Voting Quorum, Abstentions and Voting Requirements

In order to conduct any business at the Annual Meeting, a quorum must be present in person or represented by valid proxy. A majority of the outstanding shares of the common stock entitled to vote at the Annual Meeting, present or represented by proxy, constitutes a quorum. As of April 6, 2011, the record date for the Annual Meeting, we had 46,027,474 shares of common stock outstanding and entitled to vote. Your shares will be counted towards the quorum only if you submit a valid proxy (or one is submitted on your behalf by your broker, bank or other nominee holding your shares in "street name") or if you vote in person at the Annual Meeting.

Votes will be counted by the inspector of election appointed for the Annual Meeting, who will separately count "For" and "Withheld" votes, with respect to Proposal No. 1, and, with respect to all proposals other than Proposal No. 1, "For" and "Against" votes and abstentions. Abstentions will be counted towards the vote total with respect to all proposals other than Proposal No. 1 and will have the same effect as "Against" votes. Broker non-votes will be counted for the purposes of establishing a quorum, but will not be counted for any purpose in determining whether a proposal has been approved. An automated system administered by Broadridge will tabulate all votes cast at the Annual Meeting.

- For Proposal No. 1, which relates to the election of directors, the three nominees receiving the most "For" votes (from the holders of votes of shares present in person or represented by proxy and entitled to vote on the election of directors) will be elected. Only votes "For" or "Withheld" will affect the outcome.

- To be approved, Proposal No. 2, which relates to the ratification of the selection of Ernst & Young LLP as our independent registered public accounting firm for 2011, must receive "For" votes from the holders of a majority of shares present and entitled to vote either in person or by proxy. If you "Abstain" from voting, it will have the same effect as an "Against" vote. Broker non-votes will have no effect.

- To be approved, Proposal No. 3, the Sunesis Pharmaceuticals, Inc. 2011 Equity Incentive Plan, must receive "For" votes from the holders of a majority of shares present and entitled to vote either in person or by proxy. If you "Abstain" from voting, it will have the same effect as an "Against" vote. Broker non-votes will have no effect.

- To be approved, Proposal No. 4, the Sunesis Pharmaceuticals, Inc. 2011 Employee Stock Purchase Plan, must receive "For" votes from the holders of a majority of shares present and entitled to vote either in person or by proxy. If you "Abstain" from voting, it will have the same effect as an "Against" vote. Broker non-votes will have no effect.

Voting Procedures and Options

The procedures for voting are fairly simple and are as follows:

Stockholder of Record: Shares Registered in Your Name

If you are a stockholder of record, you may vote in person at the Annual Meeting, vote by proxy over the telephone, vote by proxy via the Internet or vote by proxy using the enclosed proxy card and returning it in the enclosed envelope. The envelope requires no postage if mailed in the United States. Whether or not you plan to attend the Annual Meeting, we urge you to vote by proxy to ensure your vote is counted. You may still attend the Annual Meeting and vote in person even if you have already voted by proxy.

- To vote in person, come to the Annual Meeting and we will give you a ballot when you arrive.

- To vote using the proxy card, simply complete, sign and date the enclosed proxy card and return it promptly in the envelope provided. If you return your signed proxy card to us before the Annual Meeting, we will vote your shares as you direct.

- To vote over the telephone, follow the instructions provided at *www.proxyvote.com.* You will be asked to provide the control number from the enclosed proxy card. Your vote must be received by 11:59 p.m., Eastern Time, on June 2, 2011 to be counted.

- To vote via the Internet, go to *www.proxyvote.com* to complete an electronic proxy card. You will be asked to provide the control number from the enclosed proxy card. Your vote must be received by 11:59 p.m., Eastern Time, on June 2, 2011 to be counted.

We are providing stockholders of record with paper copies of the proxy materials instead of the Notice. If you would like to reduce the environmental impact and the costs incurred by us in mailing proxy materials, you may elect to receive all future proxy materials electronically via email or the Internet. If you make this election, you will receive an email message shortly after the proxy statement is released containing the Internet link to access our Notice, proxy statement and annual report. The email will also include instructions for voting on the Internet.

In order to receive these materials electronically, follow the instructions to vote on the Internet at *www.proxyvote.com* and, when prompted, indicate that you agree to access stockholder communications electronically in the future. Your choice to receive proxy materials electronically will remain in effect until you contact our Corporate Secretary and inform us otherwise. You may send an electronic message to bjerkholt@sunesis.com or contact our Corporate Secretary by mail at 395 Oyster Point Boulevard, Suite 400, South San Francisco, California 94080, Attention: Eric H. Bjerkholt, Senior Vice President, Corporate Development and Finance, Chief Financial Officer and Corporate Secretary.

Beneficial Owner: Shares Registered in the Name of a Bank, Broker or Other Nominee

Most beneficial owners whose stock is held in street name will receive the Notice containing voting instructions from their banks, brokers or other nominees, rather than from us. If your shares are held in street name, you will need to obtain the Notice from the institution that holds your shares and follow the voting instructions included in that Notice regarding how to instruct your broker or other nominee holding the shares to vote your shares. To vote in person at the Annual Meeting, you must obtain a valid proxy from your broker, bank or other agent. Follow the instructions from your broker or bank included with these proxy materials, or contact your broker or bank to request a proxy form.

You may request a paper or email copy of the proxy materials at no charge via the Internet at *www.proxyvote.com*, by calling 1-800-579-1639, or by sending a blank email to sendmaterial@proxyvote.com with your control number by May 20, 2011. Beneficial owners will not otherwise receive a paper or email copy of the proxy materials.

Broker non-votes occur when a beneficial owner of shares held in street name does not give instructions to the broker or nominee holding the shares as to how to vote on matters deemed "non-routine." Generally, if shares are held in street name, the beneficial owner of the shares is entitled to give voting instructions to the broker or nominee holding the shares. If the beneficial owner does not provide voting instructions, the broker or nominee can still vote the shares with respect to matters that are considered to be "routine," but not with respect to "non-routine" matters. Under the rules and interpretations of the New York Stock Exchange, "non-routine" matters are matters that may substantially affect the rights or privileges of stockholders, such as mergers, stockholder proposals and elections of directors, even if not contested, and include each of the Proposals set forth in the Notice and accompanying proxy materials, with the exception of Proposal No. 2.

For admission to the Annual Meeting, stockholders may be asked to present proof of identification and a statement from their bank, broker or other nominee reflecting their beneficial ownership of our common stock as of April 6, 2011 as well as a proxy from the record holder to the stockholder.

We provide Internet proxy voting to allow you to vote your shares online, with procedures designed to ensure the authenticity and correctness of your proxy vote instructions. However, please be aware that you must bear any costs associated with your Internet access, such as usage charges from Internet access providers and telephone companies.

Revocability of Proxies

You may revoke your proxy at any time before it is voted at the Annual Meeting by:

- delivering written notice of revocation to our Corporate Secretary at Sunesis Pharmaceuticals, Inc., 395 Oyster Point Boulevard, Suite 400, South San Francisco, California 94080, or in person at the Annual Meeting;
- submitting a later dated proxy; or
- attending the Annual Meeting and voting in person.

Your most recent proxy card or telephone or internet proxy is the one that is counted.

Your attendance at the Annual Meeting will not, by itself, constitute revocation of your proxy. If your shares are held by your broker or bank as a nominee or agent, you should follow the instructions provided by your broker or bank.

Results of the Annual Meeting

Preliminary voting results will be announced at the Annual Meeting. In addition, final voting results will be published in a current report on Form 8-K that we expect to file within four business days after the Annual Meeting. If final voting results are not available to us in time to file a Form 8-K within four business days after the meeting, we intend to file a Form 8-K to publish preliminary results and, within four business days after the final results are known to us, file an additional Form 8-K to publish the final results.

Internet Availability of Proxy Materials

This proxy statement and our Annual Report on Form 10-K for the year ended December 31, 2010 are available at https://materials.proxyvote.com/867328.

Availability of Our Independent Registered Public Accounting Firm

Representatives of Ernst & Young LLP, our independent registered public accounting firm, are expected to be present at the Annual Meeting. They will have an opportunity to make a statement if they so desire and will be available to respond to appropriate questions. For additional information regarding the Audit Committee and its activities with Ernst & Young LLP, see "*Information about the Board of Directors and Corporate Governance*" and "*Report of the Audit Committee of the Board of Directors*."

YOUR VOTE IS IMPORTANT. ACCORDINGLY, PLEASE COMPLETE, SIGN AND RETURN THE ACCOMPANYING PROXY CARD OR OTHERWISE VOTE WHETHER OR NOT YOU PLAN TO ATTEND THE ANNUAL MEETING IN PERSON.

PROPOSAL NO. 1

ELECTION OF NOMINEES TO THE BOARD OF DIRECTORS

Our board of directors, or our Board, consists of nine members with one vacancy and is divided into three classes of directors serving staggered three-year terms. Directors for each class are elected at the annual meeting of stockholders held in the year in which the term for their class expires and hold office until their earlier death, resignation or removal or their successors are duly elected and qualified. In accordance with our amended and restated certificate of incorporation and bylaws, our Board may fill existing vacancies on the Board by appointment, subject to the terms and conditions of the Investor Rights Agreement described in more detail below.

The three nominees for Class III director are Mr. Matthew K. Fust, Dr. David C. Stump and Mr. Daniel N. Swisher, Jr., all of whom currently serve as Class III directors, whose term expires at the Annual Meeting. If elected at the Annual Meeting, each of these nominees would serve until our 2014 annual meeting of stockholders and until his successor is elected and qualified, or, if sooner, until his death, resignation or removal. Each nominee has indicated his willingness to serve if elected. Our management has no reason to believe that any nominee will be unable to serve. In the event that either of the nominees should be unavailable for election as a result of an unexpected occurrence, shares represented by executed proxies will be voted for the election of a substitute nominee proposed by management.

Directors are elected by a plurality of the votes of the shares present in person or represented by proxy and entitled to vote at the meeting. Proxies cannot be voted for more than three persons. The three nominees nominated by the Board to serve as Class III directors must receive the most "For" votes (among votes properly cast in person or by proxy) of nominees for the vacancies in such director class in order to be elected. Shares represented by executed proxies will be voted, if authority to do so is not withheld, "For" the election of the nominees named below. Only votes "For" or "Withheld" will affect the outcome.

Pursuant to an Investor Rights Agreement, as of May 1, 2010, we are required to establish and maintain the size of the Board at nine members, five of which may be designated by certain investors. Specifically, each of Alta Partners, Bay City Capital LLC, Growth Equity Opportunities Fund, LLC and ONC Partners, L.P., together with their respective affiliates, has the right to designate one designee, with the remaining designee designated by the investors holding the majority of Registrable Shares as specified in the Investor Rights Agreement. Each of Alta Partners, Bay City Capital LLC and Growth Equity Opportunities Fund, LLC presently have a designee serving on our Board as described below. See the section titled "*Certain Relationships and Related Party Transactions—Investor Rights Agreements*" for a more complete description of the Investor Rights Agreement.

The following table sets forth certain information as of March 15, 2011 with respect to our directors, including the three persons nominated for election by our Board at the Annual Meeting.

Name	Age	Director Since
James W. Young, Ph.D.	66	2000
Daniel N. Swisher, Jr.	47	2004
Matthew K. Fust	46	2005
Homer L. Pearce, Ph.D.	58	2006
David C. Stump, M.D.	61	2006
Edward Hurwitz	47	2009
Dayton Misfeldt	37	2009
Helen S. Kim	48	2009

The principal occupations and positions of our directors, including the three persons nominated for election by our Board at the Annual Meeting, for at least the past five years, are as follows:

Class III Nominees for Election to the Board of Directors for a Three-Year Tem Expiring in 2014

Matthew K. Fust has been Executive Vice President and Chief Financial Officer at Onyx Pharmaceuticals, Inc., a biopharmaceutical company, since January 2009. Prior to joining Onyx, Mr. Fust was Executive Vice President and Chief Financial Officer at Jazz Pharmaceuticals, Inc., a pharmaceutical company, which he joined in May 2003. From May 2002 to May 2003, Mr. Fust was Chief Financial Officer at Perlegen Sciences, Inc., a biotechnology company. From June 1996 to January 2002, Mr. Fust was with ALZA Corporation, first as Controller and then as Chief Financial Officer. Mr. Fust holds a B.A. in Accounting from the University of Minnesota and an M.B.A. from the Stanford Graduate School of Business. The Board has concluded that Mr. Fust should serve on our Board due to his financial expertise with its focus on the pharmaceutical and biopharmaceutical industries. This expertise makes him an important resource for the Board in its oversight of our financial operations and related reporting.

David C. Stump, M.D. is Executive Vice President, Research and Development, at Human Genome Sciences, Inc., a biopharmaceutical company, and has served at that company since November 1999. From December 2003 to May 2007, Dr. Stump served as Executive Vice President of Drug Development at Human Genome Sciences and, from November 1999 to December 2003, as its Senior Vice President, Drug Development. Prior to joining Human Genome Sciences, Dr. Stump held roles of increasing responsibility at Genentech, Inc., a biopharmaceutical company, from 1989 to 1999, including Vice President, Clinical Research and Genentech Fellow. Prior to joining Genentech, Dr. Stump was an Associate Professor of Medicine and Biochemistry at the University of Vermont. Since September 2006, Dr. Stump has served as a consultant to Sunesis, reviewing, assessing and advising us on our development plans and strategies. Dr. Stump is a member of the board of directors of Dendreon Corporation, a biotechnology company, and a member of the board of trustees of Adventist HealthCare and Earlham College. Dr. Stump holds an A.B. from Earlham College and an M.D. from Indiana University and did his residency and fellowship training in internal medicine, hematology, oncology and biochemistry at the University of Iowa. The Board has concluded that Dr. Stump should serve on our Board due to his scientific and clinical expertise and industry background, which are valuable as we continue our drug development efforts.

Daniel N. Swisher, Jr. has served as our Chief Executive Officer, or CEO, and a member of our Board since January 2004 and also as our President since August 2005. From December 2001 to December 2003, he served as our Chief Business Officer and Chief Financial Officer. From June 1992 to September 2001, Mr. Swisher served in various management roles, including Senior Vice President of Sales and Marketing, for ALZA Corporation. Mr. Swisher holds a B.A. in History from Yale University and an M.B.A. from the Stanford Graduate School of Business. The Board has concluded that Mr. Swisher should serve on our Board due to his long tenure as CEO, which brings continuity to the Board, his operational and industry expertise through his previous managerial roles as well as his detailed understanding of our business.

Class I Directors Continuing in Office Until the 2012 Annual Meeting

Edward Hurwitz has served as a director of Alta Partners, a venture capital firm, since June 2002. From June 1997 to October 2002, Mr. Hurwitz served as Senior Vice President and Chief Financial Officer of Affymetrix, Inc., a microarray technology company. From April 1994 to June 1997, Mr. Hurwitz was a biotechnology research analyst for Robertson Stephens & Company, and from April 1992 to April 1994 was a biotechnology research analyst for Smith Barney Shearson. From November 1990 to April 1992, Mr. Hurwitz practiced commercial law at Cooley LLP. Mr. Hurwitz holds a B.A. in Molecular Biology from Cornell University, a J.D. from the University of California, Berkeley Boalt Hall School of Law and an M.B.A. from the Haas School of Business. Mr. Hurwitz was appointed as a director pursuant to the Investor Rights Agreement executed in connection with Alta Partners' purchase of our securities in a private placement of equity securities

in April 2009, or the Private Placement. See "*Certain Relationships and Related Party Transactions—Investor Rights Agreements*" for a description of this agreement. The Board has concluded that Mr. Hurwitz should serve on our Board due to his financial, legal and scientific expertise, as well as his deep understanding of the biotechnology industry, which the Board believes makes him an important resource for the Board as it assesses both financial and strategic decisions.

Helen S. Kim is currently the chief business officer of NGM Biopharmaceuticals, Inc., where she has served since August 2009. Prior to joining NGM, Ms. Kim was the chief executive officer of TRF Pharma, where she has served since December 2008. Prior to her service at TRF, Ms. Kim served as the president and chief executive officer of Kosan Biosciences, Inc. from January 2008 to July 2008. From August 2003 to December 2007, Ms. Kim served as chief program officer of the Gordon and Betty Moore Foundation and from 2002 to 2003 as chief business officer of Affymax, Inc. Prior to her service at Affymax, Ms. Kim was senior vice president of corporate development of Onyx Pharmaceuticals, Inc. from 1999 to 2002. Ms. Kim also served as the vice president of strategic marketing at Chiron Corporation from 1989 to 1998. Ms. Kim holds a B.S. in Chemical Engineering from Northwestern University and an M.B.A. from the University of Chicago. Ms. Kim was appointed as a director pursuant to the Investor Rights Agreement executed in connection with Growth Equity Opportunities Fund, LLC's purchase of our securities in the Private Placement. See "*Certain Relationships and Related Party Transactions—Investor Rights Agreements*" for a description of this agreement. The Board has concluded that Ms. Kim should serve on our Board due to her corporate development, managerial and scientific expertise, which the Board believes makes her an important resource for the Board as it assesses both tactical and strategic business decisions.

Dayton Misfeldt is an Investment Partner at Bay City Capital LLC, a venture capital firm, and focuses on biopharmaceutical investment opportunities. Prior to joining Bay City Capital in May 2000, Mr. Misfeldt was a Vice President at Roth Capital Partners where he worked as a sell-side analyst covering the biopharmaceutical industry. Mr. Misfeldt has also worked as a Project Manager at LifeScience Economics. Mr. Misfeldt received a B.A. in Economics from the University of California, San Diego. Mr. Misfeldt was appointed as a director pursuant to the Investor Rights Agreement executed in connection with Bay City Capital's purchase of our securities in the Private Placement. See "*Certain Relationships and Related Party Transactions—Investor Rights Agreements*" for a description of this agreement. The Board has concluded that Mr. Misfeldt should serve on our Board due to his financial expertise and strong understanding of the biotechnology industry, which the Board believes makes him an important resource for the Board as it assesses both financial and strategic decisions.

Class II Directors Continuing in Office Until the 2013 Annual Meeting

James W. Young, Ph.D. served as Executive Chairman of our Board from December 2003 to April 2009 and has served as non-executive Chairman of our Board since April 2009. From May 2000 to November 2003, Dr. Young served as our CEO. In April 2006, he joined 5AM Ventures, a venture capital firm, as a Venture Partner. From September 1995 to March 2000, Dr. Young served as Vice President of Research, as Senior Vice President, Research and Development, and as Group Vice President at ALZA Corporation, a pharmaceutical company. From September 1992 to August 1995, Dr. Young served as Senior Vice President for Business Development and as President of the Pharmaceuticals Division of Affymax, N.V., a biopharmaceutical company. From September 1987 to August 1992, he served as Senior Vice President for Business Development and as Senior Vice President and General Manager of the Pharmaceuticals Division at Sepracor Inc., a pharmaceutical company. Dr. Young also served as a director of Corixa Corporation, a biopharmaceutical company, from 2000 to July 2005. Dr. Young also serves as a member of the board of directors of two private companies, Pearl Therapeutics, Inc. and Incline Therapeutics, Inc. Dr. Young holds a B.S. in Chemistry from Fordham University and a Ph.D. in Organic Chemistry from Cornell University. The Board has concluded that Dr. Young should serve on our Board due to Dr. Young's prior history as CEO and his long tenure as Board Chairman, which brings continuity to the Board and a depth of understanding. In addition, the Board believes that he brings operational and industry expertise due to his experience in management of other pharmaceutical and biopharmaceutical companies, as well as leadership skills that are important to the Board.

Homer L. Pearce, Ph.D. served in various capacities at Eli Lilly & Company between 1979 and March 2006, including Vice President, Cancer Research and Clinical Investigation from 1994 to 2002 and Distinguished Research Fellow, Cancer Research, Lilly Research Laboratories from 2002 to March 2006. Since August 2006, Dr. Pearce has served as a consultant to Sunesis, reviewing, assessing and advising us on our development plans and strategies. He is a member of the American Association for Cancer Research, the American Chemical Society and the American Association for the Advancement of Science. Dr. Pearce holds a B.S. from Texas A&M University and a Ph.D. in Organic Chemistry from Harvard University. The Board has concluded that Dr. Pearce should serve on our Board due to his scientific expertise and industry background, which position him to make an effective contribution to the scientific understanding of the Board, which the Board believes to be particularly important as we continue our drug development efforts.

There are no family relationships among any of our executive officers, directors or persons nominated to become one of our directors.

THE BOARD OF DIRECTORS RECOMMENDS
A VOTE *FOR* THE ELECTION OF THE DIRECTORS
COVERED BY PROPOSAL NO. 1.

PROPOSAL NO. 2

RATIFICATION OF SELECTION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee of the Board, or the Audit Committee, has selected Ernst & Young LLP, or Ernst & Young, as our independent registered public accounting firm for the year ending December 31, 2011 and has further directed that management submit the selection of Ernst & Young for ratification by the stockholders at the Annual Meeting. Ernst & Young has audited our financial statements since our inception in 1998. Representatives of Ernst & Young are expected to be present at our Annual Meeting, will have an opportunity to make a statement if they so desire and will be available to respond to appropriate questions.

Stockholder ratification of the selection of Ernst & Young as our independent registered public accounting firm is not required by our bylaws or other governing documents. However, the Audit Committee is submitting the selection of Ernst & Young to our stockholders for ratification as a matter of good corporate governance. If the stockholders fail to ratify the selection, the Audit Committee will reconsider whether or not to retain Ernst & Young. Even if the selection is ratified, the Audit Committee in their discretion may direct the appointment of a different independent registered public accounting firm at any time during the year if they determine that such a change would be in the best interests of Sunesis and our stockholders.

Stockholders are requested in this Proposal No. 2 to ratify the selection of Ernst & Young as our independent registered public accounting firm for the year ending December 31, 2011. The affirmative vote of the holders of a majority of the shares present in person or represented by proxy and entitled to vote at the Annual Meeting will be required to ratify this Proposal No. 2. Abstentions will be counted towards the tabulation of votes cast on the proposal and will have the same effect as "Against" votes. Broker non-votes are counted towards a quorum, but are not counted for any purpose in determining whether this matter has been approved.

THE BOARD OF DIRECTORS RECOMMENDS
A VOTE *FOR* PROPOSAL NO. 2.

PROPOSAL NO. 3

APPROVAL OF THE SUNESIS PHARMACEUTICALS, INC. 2011 EQUITY INCENTIVE PLAN

Our Board adopted the Sunesis Pharmaceuticals, Inc. 2011 Equity Incentive Plan, or the 2011 Plan, on March 15, 2011. The 2011 Plan will become effective as of the date of the Annual Meeting, provided that the 2011 Plan is approved by our stockholders at such meeting. The 2011 Plan is the successor to and continuation of our 1998 Stock Plan, or the 1998 Plan, our 2001 Stock Plan, or the 2001 Plan, our 2005 Equity Incentive Award Plan, or the 2005 Plan, and our 2006 Employment Commencement Incentive Plan, or the 2006 Plan, and together with the 1998 Plan, the 2001 Plan and the 2005 Plan, the Prior Plans.

All outstanding stock awards granted under the Prior Plans will continue to be subject to the terms and conditions as set forth in the agreements evidencing such stock awards and the terms of the Prior Plans. However, if our stockholders approve this Proposal No. 3, then as of the effective date of the 2011 Plan, (i) no additional stock awards will be granted under the Prior Plans, (ii) any shares remaining available that could then be made subject to new grants under the Prior Plans, or the Prior Plans' Available Reserve, will become available for issuance pursuant to awards granted under the 2011 Plan, and (iii) any shares subject to outstanding stock awards granted under the Prior Plans that expire or terminate for any reason prior to exercise or settlement or that are forfeited because of the failure to meet a contingency or condition required to vest such shares, or, collectively, the Returning Shares, will become available for issuance pursuant to stock awards granted under the 2011 Plan.

We are asking you to approve an initial share reserve of 4,400,000 shares of our common stock under the 2011 Plan, plus the Prior Plans' Available Reserve and the Returning Shares, if any, that become available from time to time. The number of shares of our common stock reserved for issuance under the 2011 Plan will automatically increase on January 1st each year for a period of 10 years, starting on January 1, 2012 and continuing through January 1, 2021, by 4.0% of the total number of shares of our common stock outstanding on December 31st of the preceding calendar year, or such lesser number of shares of our common stock as determined by our Board.

The approval of the 2011 Plan will allow us to utilize a broad array of equity incentives and performance cash incentives to secure and retain the services of our employees, consultants and directors, and to provide long term incentives that align the interests of these individuals with the interest of our stockholders.

Description of the 2011 Plan

The material features of the 2011 Plan are outlined below. This summary is qualified in its entirety by reference to the complete text of the 2011 Plan. Stockholders are urged to read the actual text of the 2011 Plan in its entirety, which is appended to this proxy statement as *Appendix A*.

General

The 2011 Plan provides for the grant of stock options (including incentive stock options and nonstatutory stock options), restricted stock awards, restricted stock unit awards, stock appreciation rights, other stock awards and performance awards that may be settled in cash, stock or other property.

Shares Available for Awards

If this Proposal No. 3 is approved, the total number of shares of our common stock initially reserved for issuance under the 2011 Plan will equal 4,400,000 shares, plus the Prior Plans' Available Reserve (which, as of March 15, 2011, was 614,255 shares) and the Returning Shares (which, as of March 15, 2011, was 1,065,332 shares), if any, as such shares become available from time to time, or, collectively, the Share Reserve.

Additionally, the Share Reserve will automatically increase on January 1st each year for a period of 10 years, starting on January 1, 2012 and continuing through January 1, 2021, by 4.0% of the total number of shares of our common stock outstanding on December 31st of the preceding calendar year, or such lesser number of shares of our common stock as determined by our Board. The Share Reserve does not limit the number of stock awards that can be granted under the 2011 Plan so long as the number of shares of our common stock issued pursuant to stock awards under the 2011 Plan does not exceed the Share Reserve.

If a stock award granted under the 2011 Plan expires or otherwise terminates without being exercised in full or is settled in cash, the shares of our common stock not acquired pursuant to the stock award again will become available for subsequent issuance under the 2011 Plan. In addition, the following types of shares under the 2011 Plan may become available for the grant of new stock awards under the 2011 Plan: (i) shares that are forfeited to or repurchased by us prior to becoming fully vested; (ii) shares withheld to satisfy income or employment withholding taxes; and (iii) shares used to pay the exercise price of a stock option. Shares issued under the 2011 Plan may be previously unissued shares or reacquired shares bought by us on the open market. As of the date hereof, no awards have been granted and no shares of our common stock have been issued under the 2011 Plan.

Eligibility

As of March 15, 2011, all of our approximately 27 employees, eight directors and approximately 20 consultants are eligible to participate in the 2011 Plan and may receive all types of awards other than incentive stock options. Incentive stock options may be granted under the 2011 Plan only to our employees (including our officers) and employees of our qualifying affiliates.

Administration

The 2011 Plan may be administered by our Board, which may in turn delegate authority to administer the 2011 Plan to a committee. Such committee may consist solely of either two or more "non-employee directors" within the meaning of Rule 16b-3 of the Securities Exchange Act of 1934, as amended, or the Exchange Act, or two or more "outside directors" within the meaning of Section 162(m) of the Internal Revenue Code of 1986, as amended, or the Code. Our Board has delegated administration of the 2011 Plan to the Compensation Committee of the Board, or the Compensation Committee, but has retained the authority to concurrently administer the 2011 Plan with the Compensation Committee and may, at any time, revest in itself some or all of the powers previously delegated to the Compensation Committee. Therefore, references in this Proposal No. 3 to the "Compensation Committee" or the "Board" may generally be read interchangeably, except to the extent explicitly stated otherwise or expressly required by law otherwise.

Subject to the terms of the 2011 Plan, the Compensation Committee may determine the participants or awards, numbers and types of awards to be granted, and the terms and conditions of the awards, including the period of their exercisability and vesting. Subject to the limitations set forth below, the Compensation Committee also determines the fair market value applicable to a stock award and the exercise price of stock options and stock appreciation rights granted under the 2011 Plan.

Repricing, Cancellation and Re-Grant of Stock Awards

Under the 2011 Plan, the Board does not have the authority to reprice any outstanding stock options or stock appreciation rights by reducing the exercise price of the stock award or to cancel any outstanding underwriter stock options or stock appreciation rights in exchange for cash or other stock awards without obtaining the approval of our stockholders within 12 months prior to the repricing or cancellation and re-grant event.

Stock Options

A stock option is the right to purchase shares of our common stock at a fixed exercise price for a fixed period of time. Stock options may be granted under the 2011 Plan pursuant to stock option agreements. The 2011 Plan permits the grant of stock options that qualify as incentive stock options, or ISOs, and nonstatutory stock options, or NSOs. Individual stock option agreements may be more restrictive as to any or all of the permissible terms described in this section.

The exercise price of NSOs may not be less than 100% of the fair market value of the common stock subject to the stock option on the date of grant. The exercise price of ISOs may not be less than 100% of the fair market value of the common stock subject to the stock option on the date of grant and, in some cases (see "*Limitations*" below), may not be less than 110% of such fair market value. As of March 15, 2011, the closing price of our common stock as reported on the Nasdaq Capital Market was $1.88 per share.

In general, the term of stock options granted under the 2011 Plan may not exceed 10 years. Unless the terms of an optionholder's stock option agreement or other agreement with us provide for earlier or later termination, if an optionholder's service relationship with us, or any affiliate of ours, ceases due to the optionholder's death or disability, the optionholder or his or her beneficiary, as applicable, may exercise the vested portion of any stock options for up to 18 months after the date the optionholder's service relationship ends. Except as explicitly provided otherwise in an optionholder's stock option agreement, if an optionholder's service relationship with us, or any affiliate of ours, is terminated for cause, all stock options terminate upon the occurrence of the event giving rise to our right to terminate the optionholder for cause. If an optionholder's service relationship with us, or any affiliate of ours, ceases for any other reason, the optionholder may exercise the vested portion of any stock options for up to three months after the date the service relationship ends, unless the terms of the applicable stock option agreements or other agreement with us provide for a longer or shorter period to exercise the stock options. Under the 2011 Plan, the stock option term may be extended in the event that exercise of the stock option following termination of service is prohibited by applicable securities laws or if the sale of stock received upon exercise of a stock option would violate our insider trading policy. In no event may a stock option be exercised after its expiration date.

Acceptable forms of consideration for the purchase of our common stock pursuant to the exercise of a stock option under the 2011 Plan will be determined by our Board and may include cash, check, bank draft or money order made payable to us, payment pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board, tender of common stock previously owned by the optionholder, a net exercise (for NSOs only), or other legal consideration approved by our Board and specified in the applicable stock option agreement.

Stock options granted under the 2011 Plan generally become exercisable in cumulative increments, or "vest," at the rate specified in the stock option agreement. Shares covered by different stock options granted under the 2011 Plan may be subject to different vesting schedules as our Board may determine. The Board also has flexibility to provide for accelerated vesting of equity awards in certain events.

Generally, an optionholder may not transfer a stock option other than by will or the laws of descent and distribution or pursuant to a domestic relations order. An optionholder may designate a beneficiary who may exercise the stock option following the optionholder's death.

Limitations

The aggregate fair market value, determined at the time of grant, of shares of our common stock with respect to ISOs that are exercisable for the first time by an optionholder during any calendar year under all of our stock plans may not exceed $100,000. The stock options or portions of stock options that exceed this limit are

treated as NSOs. No ISO may be granted to any person who, at the time of grant, owns or is deemed to own stock possessing more than 10% of our total combined voting power or that of any affiliate unless the following conditions are satisfied:

- the stock option exercise price must be at least 110% of the fair market value of the stock subject to the stock option on the date of grant; and
- the term of any ISO must not exceed five years from the date of grant.

The aggregate maximum number of shares that may be issued pursuant to the exercise of ISOs is 35.0 million shares of our common stock. In addition, no participant may be granted stock options, stock appreciation rights, or other appreciation-only stock awards under the 2011 Plan covering more than 3.0 million shares of our common stock in any calendar year.

Restricted Stock Awards

Restricted stock awards are grants of shares of our common stock that may be subject to forfeiture in accordance with a vesting schedule determined by our Board. Restricted stock may be granted under the 2011 Plan pursuant to restricted stock award agreements. Restricted stock may be granted in consideration for cash, check, bank draft or money order payable to us, the participant's services performed for us or an affiliate of ours, or any other form of legal consideration (including future services) acceptable to our Board. Rights to acquire shares of restricted stock may be transferred only as set forth in the applicable restricted stock award agreement. Except as otherwise provided in the applicable restricted stock award agreement, restricted stock that has not vested will be forfeited upon the participant's termination of continuous service for any reason.

Restricted Stock Unit Awards

Restricted stock units are rights to receive shares of our common stock or cash equal to the value of shares of our common stock at the end of a set period. Restricted stock units may be granted under the 2011 Plan pursuant to restricted stock unit award agreements. A participant's payment of any purchase price upon delivery of shares of our common stock subject to restricted stock units may be made in any legal form acceptable to the Board. We will settle a payment due to a participant with respect to restricted stock units by delivery of shares of our common stock, by cash, by a combination of cash and stock, or in any other form of consideration determined by our Board and set forth in the applicable restricted stock unit award agreement. Dividend equivalents may be credited in respect of shares of our common stock covered by restricted stock units. Restricted stock units may be subject to vesting in accordance with a vesting schedule determined by our Board. Except as otherwise provided in the applicable restricted stock unit award agreement, restricted stock units that have not vested will be forfeited upon the participant's termination of continuous service for any reason.

Stock Appreciation Rights

Stock appreciation rights are rights to receive the appreciation in the fair market value of our common stock between the date of grant and the exercise date for the number of shares of our common stock that are exercised. Stock appreciation rights may be granted under the 2011 Plan pursuant to a stock appreciation rights agreements. Each stock appreciation right is denominated in common stock share equivalents. The strike price of each stock appreciation right will be determined by our Board but may not be less than 100% of the fair market value of our common stock on the date of grant. Stock appreciation rights may be subject to vesting in accordance with a vesting schedule determined by our Board. Stock appreciation rights may be paid in our common stock, in cash, in a combination of cash and stock, or in any other form of legal consideration approved by our Board and set forth in the stock appreciation right agreement. Stock appreciation rights are subject to the same conditions upon termination and restrictions on transfer as stock options under the 2011 Plan (as described under "*Stock Options*" above).

Performance Awards

The 2011 Plan provides for the grant of two types of performance awards: (i) performance stock awards and (ii) performance cash awards. Performance awards may be granted, vest or be exercised based upon the attainment of specified performance goals during a specified performance period. The Compensation Committee will determine the length of any performance period, the performance goals to be achieved during the performance period and the measure of whether and to what degree the performance goals have been attained. The maximum number of shares of our common stock and the maximum value that may be granted to any participant in a calendar year with respect to performance awards may not exceed 2.0 million shares of our common stock, in the case of performance stock awards and $2.0 million, in the case of performance cash awards.

In granting a performance award, the Compensation Committee will set a period of time, or a performance period, over which the attainment of one or more goals, or the performance goals, will be measured for purposes of determining whether the participant may be granted, vest in or exercise such award. The Compensation Committee will establish the performance goals based upon one or more criteria, or the performance criteria, enumerated in the 2011 Plan and described below. As soon as administratively practicable following the end of the performance period, the Compensation Committee will certify whether the performance goals have been satisfied.

Performance goals under the 2011 Plan will be determined by the Compensation Committee, based on any one or more of the following performance criteria: (i) earnings (including earnings per share and net earnings); (ii) earnings before interest, taxes and depreciation; (iii) earnings before interest, taxes, depreciation and amortization; (iv) total stockholder return; (v) return on equity or average stockholder's equity; (vi) return on assets, investment, or capital employed; (vii) stock price; (viii) margin (including gross margin); (ix) income (before or after taxes); (x) operating income; (xi) operating income after taxes; (xii) pre-tax profit; (xiii) operating cash flow; (xiv) sales or revenue targets; (xv) increases in revenue or product revenue; (xvi) expenses and cost reduction goals; (xvii) improvement in or attainment of working capital levels; (xiii) economic value added (or an equivalent metric); (xix) market share; (xx) cash flow; (xxi) cash flow per share; (xxii) share price performance; (xxiii) debt reduction; (xxiv) implementation or completion of projects or processes; (xxv) customer satisfaction; (xxvi) stockholders' equity; (xxvii) capital expenditures; (xxiii) debt levels; (xxix) operating profit or net operating profit; (xxx) workforce diversity; (xxxi) growth of net income or operating income; (xxxii) billings; and (xxxiii) to the extent that a performance award is not intended to comply with Section 162(m) of the Code, other measures of performance selected by our Board.

Performance goals may be based on a company-wide basis, with respect to one or more business units, divisions, affiliates or business segments, and in either absolute terms or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. The Compensation Committee is authorized to determine whether, when calculating the attainment of performance goals for a performance period, to exclude one or more of the following: (i) restructuring and/or other nonrecurring charges; (ii) exchange rate effects, as applicable, for non-U.S. dollar denominated performance goals; (iii) the effects of changes to generally accepted accounting principles; (iv) the effects of any statutory adjustments to corporate tax rates; (v) the effects of any "extraordinary items" as determined under generally accepted accounting principles; (vi) to exclude the dilutive effects of acquisitions or joint ventures; (vii) to assume that any business divested by us achieved performance objectives at targeted levels during the balance of a performance period following such divestiture; (viii) to exclude the effect of any change in the outstanding shares of our common stock by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common stockholders other than regular cash dividends; (ix) to exclude the effects of stock-based compensation and the award of bonuses under our bonus plans; and (x) to exclude the effect of any other unusual, nonrecurring gain or loss or other extraordinary item. In addition, the Compensation Committee retains the discretion to reduce or eliminate the compensation or economic benefit due upon attainment of performance goals and to define the manner of calculating the performance criteria it selects to use for a performance period.

Other Stock Awards

Other forms of stock awards valued in whole or in part by reference to our common stock may be granted under the 2011 Plan. Our Board will have sole and complete authority to determine the persons to whom and the time or times at which other stock awards will be granted, the number of shares of our common stock to be granted and all other conditions of such other stock awards. Other stock awards may be subject to vesting in accordance with a vesting schedule to be determined by our Board.

Changes to Capital Structure

In the event of certain capitalization adjustments, the Board will appropriately adjust: (i) the classes and maximum number of securities subject to the 2011 Plan; (ii) the classes and maximum number of securities that may be issued pursuant to the exercise of incentive stock options; (iii) the classes and maximum number of securities that may be awarded to any person pursuant to the Section 162(m) limits under the 2011 Plan; and (iv) the classes and number of securities and price per share of stock subject to outstanding stock awards.

Corporate Transactions

In the event of certain specified significant corporate transactions, our Board has the discretion to take any one of the following actions with respect to stock awards:

- arrange for the assumption, continuation or substitution of a stock award by a surviving or acquiring entity or parent company;
- arrange for the assignment of any reacquisition or repurchase rights held by us to the surviving or acquiring entity or parent company;
- accelerate the vesting of the stock award and provide for its termination prior to the effective time of the corporate transaction;
- arrange for the lapse of any reacquisition or repurchase rights held by us;
- cancel or arrange for the cancellation of the stock award in exchange for such cash consideration, if any, as our Board may deem appropriate; or
- make a payment equal to the excess of (i) the value of the property the participant would have received upon exercise of the stock award over (ii) the exercise price otherwise payable in connection with the stock award.

Our Board is not obligated to treat all stock awards, even those that are of the same type, in the same manner.

Change in Control

Unless otherwise provided in the applicable stock award agreement or any other written agreement between us or any affiliate and the participant, in the event of a change in control (as specified in the 2011 Plan), all outstanding stock awards under the 2011 Plan may be assumed, continued or substituted for by any surviving or acquiring entity (or its parent company). If the surviving or acquiring entity (or its parent company) elects not to assume, continue or substitute for outstanding stock awards, then, with respect to any such stock awards that are held by participants whose continuous service with us or an affiliate has not terminated prior to the effective date of the change in control, the vesting and exercisability of such stock awards will be accelerated in full contingent upon the effectiveness of the change in control. In the event of a change in control in which the

surviving or acquiring entity (or its parent company) assumes, continues or substitutes outstanding stock awards and with respect to any stock awards that are held by participants whose continuous service with us or an affiliate has not terminated prior to the effective date of the change in control, if such participant's continuous service terminates due to an involuntary termination (not including death or disability) without cause or due to a voluntary resignation with good reason in either case on or within 12 months after the effective time of such change in control, the vesting and exercisability of such stock awards will be accelerated in full effective as of the date of the participant's termination of continuous service.

If any payment or benefit a participant would receive pursuant to a change in control would constitute a "parachute payment" within the meaning of Section 280G of the Code and be subject to the excise tax imposed by Section 4999 of the Code, then such payment will be reduced to such amount that would result in no portion of the payment being subject to the excise tax or the largest portion of the payment, after taking into account all applicable federal, state and local employment taxes, income taxes and the excise tax, that results in the participant's receipt (on an after-tax basis) of the greater amount of the payment notwithstanding that all or a portion of the payment may be subject to the excise tax.

The acceleration of vesting of a stock award in the event of a corporate transaction or change in control under the 2011 Plan may be viewed as an anti-takeover provision, which may discourage a proposal to acquire or otherwise obtain control of the Company.

Plan Amendments

Our Board has the authority to amend or terminate the 2011 Plan. However, no amendment or termination of the 2011 Plan will adversely affect any rights under awards already granted to a participant unless agreed to by the affected participant. We will obtain stockholder approval of any amendment to the 2011 Plan as required by applicable law and listing requirements.

Plan Termination

Unless sooner terminated by our Board, the 2011 Plan will automatically terminate on the day before the tenth anniversary of the date the 2011 Plan is adopted by the Board or approved by our stockholders, whichever is earlier.

U.S. Federal Income Tax Consequences

The information set forth below is only a summary and does not purport to be complete. The information is based upon current U.S. federal income tax rules and therefore is subject to change when those rules change. Because the tax consequences to any participant may depend on his or her particular situation, each participant should consult his or her tax adviser regarding the federal, state, local, and other tax consequences of the grant or exercise of an award or the disposition of stock acquired under an award. The 2011 Plan is not qualified under the provisions of Section 401(a) of the Code and is not subject to any of the provisions of the Employee Retirement Income Security Act of 1974. Our ability to realize the benefit of any tax deductions described below depends on our generation of taxable income and the recognition of the deductions are subject to the requirement that the amounts constitute an ordinary and necessary business expense for us and are reasonable in amount, the limitation on the deduction of executive compensation under Section 162(m) of the Code and the timely satisfaction of our tax reporting obligations.

Nonstatutory Stock Options

Generally, there is no taxation upon the grant of an NSO. On exercise, an optionholder will recognize ordinary income equal to the excess, if any, of the fair market value on the date of exercise of the stock option over the exercise price. If the optionholder is employed by us or one of our affiliates, that income will be subject

to withholding taxes. The optionholder's tax basis in those shares will be equal to their fair market value on the date of exercise of the stock option, and the optionholder's capital gain holding period for those shares will begin on that date.

Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code and the satisfaction of our tax reporting obligations, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the optionholder.

Incentive Stock Options

The 2011 Plan provides for the grant of stock options that qualify as "incentive stock options," as defined in Section 422 of the Code. Under the Code, an optionholder generally is not subject to ordinary income tax upon the grant or exercise of an ISO. If the optionholder holds a share of common stock received on exercise of an ISO for more than two years from the date the stock option was granted and more than one year from the date the stock option was exercised, or the required holding period, the difference, if any, between the amount realized on a sale or other taxable disposition of that share of common stock and the holder's tax basis in that share will be long-term capital gain or loss.

If, however, an optionholder disposes of a share of common stock received on exercise of an ISO before the end of the required holding period, or a disqualifying disposition, the optionholder generally will recognize ordinary income in the year of the disqualifying disposition equal to the excess, if any, of the fair market value of the share of common stock on the date the ISO was exercised over the exercise price. However, if the sales proceeds are less than the fair market value of the share of common stock on the date of exercise of the stock option, the amount of ordinary income recognized by the optionholder will not exceed the gain, if any, recognized on the sale. If the amount realized on a disqualifying disposition exceeds the fair market value of the share of common stock on the date of exercise of the stock option, that excess will be short-term or long-term capital gain, depending on whether the holding period for the share exceeds one year.

The amount by which the fair market value of a share of stock received on exercise of an ISO exceeds the exercise price of that stock option generally will be an adjustment included in the optionholder's alternative minimum taxable income for the year in which the stock option is exercised. If, however, there is a disqualifying disposition of the share of common stock in the year in which the stock option is exercised, there will be no adjustment for alternative minimum tax purposes with respect to that share. In computing alternative minimum taxable income, the tax basis of a share received on exercise of an ISO is increased by the amount of the adjustment with respect to that share of common stock for alternative minimum tax purposes in the year the stock option is exercised.

We are not allowed an income tax deduction with respect to the grant or exercise of an ISO or the disposition of a share of common stock received on exercise of an ISO that is disposed of after the required holding period. If there is a disqualifying disposition of a share of common stock, however, we are allowed a deduction in an amount equal to the ordinary income includible in income by the optionholder, subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code and the satisfaction of our tax reporting obligations.

Restricted Stock Awards

Generally, a participant will recognize ordinary income at the time restricted stock is received equal to the excess, if any, of the fair market value of the stock received over any amount paid by the participant in exchange for the stock. If, however, the stock is not vested when it is received (e.g., the employee is required to work for us for a period of time to transfer or sell the stock), the participant generally will not recognize income until the stock vests, at which time the participant will recognize ordinary income equal to the excess, if any, of the fair market value of the stock on the date it vests over any amount paid by the participant in exchange for the stock. A participant may, however, file an election with the Internal Revenue Service within 30 days following his or her

receipt of the restricted stock to recognize ordinary income as of the date the participant receives the restricted stock equal to the excess, if any, of the fair market value of the restricted stock on the date the stock is granted over any amount paid by the participant for the stock.

The participant's basis for the determining gain or loss upon the subsequent disposition of restricted stock will be the amount paid for such shares plus any ordinary income recognized either when the restricted stock is received or when it vests.

Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code and the satisfaction of our tax reporting obligations, we will generally be entitled to a tax deduction equal to the taxable ordinary income recognized by the participant.

Stock Appreciation Rights

Generally, there is no taxation upon the grant of a stock appreciation right. On exercise, a participant will recognize ordinary income equal to the fair market value of the stock or cash received upon such exercise.

Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code and the satisfaction of our tax reporting obligations, we will generally be entitled to a tax deduction equal to the taxable ordinary income recognized by the participant.

Restricted Stock Unit Awards

Generally, a participant who is granted restricted stock units that are structured to comply with the requirements of Section 409A of the Code or an exemption from Section 409A will recognize ordinary income at the time the stock is delivered equal to the excess, if any, of the fair market value of the shares of our common stock received over any amount paid by the participant in exchange for the shares.

If necessary to comply with the requirements of Section 409A of the Code, the shares of our common stock underlying restricted stock units will be delivered only upon one of the following events: a fixed calendar date (or dates), the participant's separation from service, death or disability, or a change in control. If delivery occurs on another date, unless the restricted stock units otherwise comply with or qualify for an exemption from the requirements of Section 409A of the Code, the participant will owe a 20% federal tax plus interest on any taxes owed, in addition to the ordinary income tax described above.

The participant's basis for determining gain or loss upon the disposition of shares received under restricted stock units will be the amount paid for such shares plus any ordinary income recognized when the shares of common stock are delivered.

Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code and the satisfaction of our tax reporting obligations, we will generally be entitled to a tax deduction equal to the taxable ordinary income recognized by the participant.

Section 162 Limitations

Section 162(m) of the Code denies a federal income tax deduction for specified compensation in excess of $1.0 million per year paid to the CEO and the three other most highly paid exercise officers, other than the chief financial officer, of a publicly traded corporation. Compensation that qualifies as "performance-based compensation" is exempt from the deduction limitations of Section 162(m), thereby permitting us to claim the full federal tax deduction otherwise allowed for such compensation.

The 2011 Plan is intended to enable the Compensation Committee to grant stock awards and performance cash awards that are exempt from the deduction limitations of Section 162(m). Under Section 162(m), compensation attributable to stock options and stock appreciation rights will qualify as performance-based

compensation if (i) such awards are approved by a compensation committee composed solely of "outside directors," (ii) the plan contains a per-employee limitation on the number of shares for which such awards may be granted during a specified period, (iii) the stockholders approve such per-employee limitation is, and (iv) the exercise or strike price of a stock award is no less than the fair market value of the stock on the date of grant. Compensation attributable to restricted stock awards, restricted stock unit awards, performance awards and other stock awards will qualify as performance-based compensation, provided that (a) the award is approved by a compensation committee composed solely of "outside directors," (b) the award is granted, vests or is settled, as applicable, only upon the achievement of objective performance goals established in writing by the Compensation Committee while the outcome is substantially uncertain, (iii) a committee of outside directors certifies in writing prior to the grant, vesting or settlement, as applicable of the award that the performance goal has been satisfied, and (iv) prior to the granting (or vesting or settlement) of the award, the stockholders have approved the material terms of the award (including the class of employees eligible for such award, the business criteria on which the performance goal is based, and the maximum amount, or formula used to calculate the maximum amount, payable upon attainment of the performance goal). Approval of this Proposal No. 3 constitutes approval of the material terms and award limitations under Section 162(m).

Equity Compensation Plan Information

The following table provides certain information with respect to all of our equity compensation plans in effect as of December 31, 2010.

Plan Category	(A) Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)(#)	(B) Weighted-average exercise price of outstanding options, warrants and rights (b)($)	(C) Number of securities remaining available for issuance under equity compensation plans (excluding securities reflected in column (a)) (c)(#)
Equity Compensation Plans Approved by Stockholders(1)	1,039,624(2)	9.20	390,816(3)
Equity Compensation Plans Not Approved by Stockholders(4)	25,708	9.12	78,459
Total	1,065,332	9.19	469,275

(1) Includes securities issuable under our 2005 Plan and Employee Stock Purchase Plan, or the Prior ESPP.

(2) Excludes purchase rights currently accruing under the Prior ESPP. Offering periods under the Prior ESPP are 12-month periods, which are comprised of two six-month purchase periods. Eligible employees may purchase shares of common stock at a price equal to 85.0% of the lower of the fair market value of the common stock at the beginning of each offering period or the end of each semi-annual purchase period. Participation is limited to 20.0% of an employee's eligible compensation, subject to limitations under the Code.

(3) Includes (i) 355,404 shares of common stock available for issuance under our 2005 Plan and (ii) 35,412 shares of common stock available for issuance under our Prior ESPP. Beginning in 2006, the number of shares of common stock reserved under the 2005 Plan automatically increased on the first trading day each year by an amount equal to the lesser of: (i) 4.0% of the number of shares of common stock outstanding on such date, (ii) 180,392 shares, or (iii) an amount determined by our Board. The number of shares of common stock reserved under our Prior ESPP automatically increased on the first trading day each year by an amount equal to the least of: (i) 0.5% of the number of shares of common stock outstanding on such date, (ii) 22,549 or (iii) a lesser amount determined by our Board.

(4) Represents our 2006 Plan.

In November 2005, our Board adopted the 2006 Plan, which became effective on January 1, 2006. Awards granted pursuant to the 2006 Plan are intended to be inducement awards pursuant to NASDAQ Listing Rule 5630(c)(4). The 2006 Plan was not subject to the approval of the Company's stockholders. Eligibility to participate in the 2006 Plan is limited to employees who have not previously been employees or directors of the Company, or following a bona fide period of non-employment by the Company. Additionally, grants awarded to such employees under the 2006 Plan must be made in connection with commencement of employment and must be an inducement material to the person entering into employment with the Company.

New Plan Benefits

Awards under the 2011 Plan are discretionary and we have not approved any awards that are conditioned on stockholder approval of the 2011 Plan. Accordingly, we cannot currently determine the benefits or number of shares subject to awards that may be granted in the future to executive officers and employees under the 2011 Plan. However, if the 2011 Plan is approved, we expect that certain of our non-employee directors will be granted non-qualified stock options to purchase shares of our common stock in amounts to be determined at a later date.

The following table sets forth information about awards granted under the Prior Plans during the year ended December 31, 2010 to each of (i) the named executive officers identified in the "*Executive Compensation and Related Information—Summary Compensation Table*" contained in this proxy statement, (ii) all current executive officers as a group, (iii) our current non-executive directors as a group, and (iv) all employees, other than executive officers, as a group:

	2005 Plan		2006 Plan	
Name and Position	**Dollar Value ($)(1)**	**Number of Units (#)**	**Dollar Value ($)**	**Number of Units (#)**
Daniel N. Swisher, Jr. ..... *CEO and President*	—	—	—	—
Eric H. Bjerkholt ..... *Senior Vice President, Corporate Development and Finance, Chief Financial Officer and Corporate Secretary*	—	—	—	—
Steven B. Ketchum, Ph.D. ..... *Senior Vice President, Research and Development*	—	—	—	—
Executive Group (3 persons)	—	—	—	—
Non-Executive Director Group (7 persons)	24,475	11,669	—	—
Non-Executive Officer Employee Group (24 persons)	97,008	46,251	—	—

(1) The dollar amounts in this column represent the aggregate grant date fair value of stock option awards granted pursuant to our 2005 Plan in the year ended December 31, 2010. These amounts have been calculated in accordance with FASB ASC Topic 718. Pursuant to SEC rules, the amounts shown exclude the impact of estimated forfeitures related to service-based vesting conditions. For additional information on the valuation assumptions, refer to Note 10, *Stock-Based Compensation* to the Notes to Consolidated Financial Statements in our Annual Report on Form 10-K for the year ended December 31, 2010 which identifies assumptions made in the valuation of option awards in accordance with FASB ASC Topic 718.

Required Vote and Recommendation of the Board of Directors

Approval of Proposal No. 3 requires the affirmative vote of a majority of the shares present or represented by proxy and entitled to vote at the Annual Meeting. Abstentions will be counted toward the tabulation of votes cast on the proposal and will have the same effect as "Against" votes. Broker non-votes are counted towards a quorum, but will have no effect on the outcome of the vote.

Our Board believes that approval of Proposal No. 3 is in our best interest and the best interest of our stockholders for the reasons stated above.

THE BOARD OF DIRECTORS RECOMMENDS
A VOTE *FOR* PROPOSAL NO. 3.

PROPOSAL NO. 4

APPROVAL OF THE SUNESIS PHARMACEUTICALS, INC. 2011 EMPLOYEE STOCK PURCHASE PLAN

Our Board adopted the Sunesis Pharmaceuticals, Inc. 2011 Employee Stock Purchase Plan, or the ESPP, on March 15, 2011. The ESPP will become effective as of the date of the Annual Meeting, provided that the ESPP is approved by our stockholders at such meeting. Our Board believes that the ESPP is an integral part of our compensation program for all levels of our employees, and is particularly important for our non-executive employees.

The ESPP is designed to replace our currently effective Prior ESPP. The Board has taken action so that offering period that was scheduled to begin under the Prior ESPP on June 1, 2011 has been cancelled and the offering period that began under the Prior ESPP on December 1, 2010 will terminate after the scheduled purchase on May 31, 2011. If our stockholders approve this Proposal No. 4, then as of the effective date of the ESPP, no additional purchase rights will be granted under the Prior ESPP and the Prior ESPP will terminate.

We are asking you to approve an initial reserve of 500,000 shares of our common stock under the ESPP. In addition, the number of shares of our common stock reserved for issuance under the ESPP will automatically increase on January 1st of each year for a period of 10 years, starting on January 1, 2012 and continuing through January 1, 2021, by 1.0% of the total number of shares of our common stock outstanding on December 31st of the preceding calendar year, or such lesser number of shares of our common stock as determined by our Board.

The approval of the ESPP will allow us to continue to provide a means by which our employees and employees of any parent or subsidiary of ours, or our related corporations (if any), that are designated by our Board to participate in the ESPP may be given an opportunity to purchase our common stock through payroll deductions. Our Board believes that the ESPP assists us in retaining the services of our employees, securing the services of new employees and providing incentives for such persons to exert maximum efforts for our success.

Description of the ESPP

The material features of the ESPP are outlined below. This summary is qualified in its entirety by reference to the complete text of the ESPP. Stockholders are urged to read the actual text of the ESPP in its entirety, which is appended to this proxy statement as *Appendix B*.

General

The ESPP generally allows employees to purchase shares of our common stock at 85.0% of the lesser of the fair market value of our common stock at the start of an offering period and at the date of purchase. This is an attractive benefit that we offer to our employees, with approximately 37% of our eligible employee population participating in the ESPP as of March 15, 2011. The rights to purchase shares of our common stock granted under the ESPP are intended to qualify as options issued under an "employee stock purchase plan" as that term is defined in Section 423(b) of the Code.

Shares Subject to the ESPP

If this Proposal No. 4 is approved, the total number of shares of our common stock initially reserved for issuance under the ESPP will equal 500,000 shares. Additionally, the number of shares of our common stock reserved for issuance under the ESPP will automatically increase on January 1st of each year for a period of 10 years, starting on January 1, 2012 and continuing through January 1, 2021, by 1.0% of the total number of shares of our common stock outstanding on December 31st of the preceding calendar year, or such lesser number of shares of our common stock as determined by our Board.

As of March 15, 2011, a total of 55,553 shares had been purchased under the Prior ESPP and 35,412 shares remained available for purchase under the Prior ESPP. The closing market price of our common stock on March 15, 2011 was $1.88.

Eligibility

Our employees or, as designated by our Board, employees of our related corporations (if any), may have to satisfy one or more of the following service requirements before participating in the ESPP, as determined by our Board: (i) customary employment for more than 20 hours per week; (b) customary employment for more than five months per calendar year; or (iii) continuous employment for a period of time not to exceed two years. No employee may be granted a purchase right under the ESPP if, immediately after such grant, the employee would own or hold options to purchase our common stock in an amount equal to 5.0% or more of the total combined power or value of all classes of our stock. As of March 15, 2011, approximately 27 employees were eligible to participate in the Prior ESPP.

Administration

The ESPP is administered by our Board, which may in turn delegate authority to administer the ESPP to a committee. Our Board has delegated administration of the ESPP to the Compensation Committee, but has retained the authority to concurrently administer the ESPP with the Compensation Committee and may, at any time, revest in itself some or all of the powers previously delegated to the Compensation Committee. Subject to the terms of the ESPP, the Compensation Committee may determine how and when purchase rights will be granted, the terms of each offering of purchase rights under the ESPP, and to determine which related corporations are eligible to participate in the ESPP. As used herein, with respect to the ESPP, the term "Board" refers to any committee the Board appoints as well as to the Board itself.

Purchase Rights

The ESPP permits eligible employees to purchase shares of our common stock through payroll deductions and is implemented through a series of offerings of purchase rights. Under the ESPP, we may specify offerings of not more than 27 months and may specify one or more shorter purchase periods within each offering. Each offering will have one or more purchase dates on which shares of our common stock will be purchased for the employees who are participating in the offering. An offering may be terminated early under certain circumstances such as a corporate transaction involving the company.

We currently anticipate that the initial offering under the ESPP will begin on June 13, 2011 and will be just under 12 months in length, ending on May 31, 2012. This offering will be divided into two consecutive six-month purchase periods, beginning on June 13, 2011 and December 1, 2011 and ending on November 30, 2011 and May 31, 2012, respectively. At the end of each purchase period, shares will be issued to participating employees based on payroll deductions accumulated for that period. The participant may contribute up to 15.0% of his or her qualifying compensation during any offering.

Unless otherwise determined by our Board, shares of our common stock will be purchased for participating employees at a price per share equal to the lower of 85.0% of the fair market value of a share of our common stock (i) on the first day of an offering, or (ii) on the purchase date. No participant may purchase shares through the ESPP having a fair market value exceeding $25,000 in any calendar year or such other limit as may be imposed by Section 423 of the Code.

Participation and Withdrawal from the ESPP

Eligible employees may enroll in any future offering effective on the date the offering begins. Additionally, we currently anticipate that employees that first become eligible to participate in the ESPP during an offering will be granted a purchase right under that offering on the first day of the first purchase period that begins after such person becomes eligible, subject to the employee submitting the necessary enrollment paperwork.

We currently anticipate that once an employee enrolls in an offering, such employee will automatically participate in the next offering, provided that the employee has not withdrawn from the ESPP, continues to meet the eligibility requirements and has not terminated employment with us. A participant may withdraw from an offering at any time without affecting his or her eligibility to participate in any other offerings under the ESPP.

Termination of Employment

Purchase rights granted under the ESPP will terminate immediately upon an employee's cessation of employment for any reason, and we will refund all accumulated payroll deductions to the terminated participant without interest.

Restrictions on Transfer

Purchase rights granted under the ESPP are generally not transferable and may be exercised during a participant's lifetime only by such participant. A participant may designate a beneficiary who is to receive any shares of our common stock or cash, if any, from the participant's account under the ESPP in the event of a participant's death after the end of an offering but prior to delivery of the participant's shares of common stock or cash.

Changes to Capital Structure

In the event of certain capitalization adjustments, the Board will appropriately adjust: (i) the classes and maximum number of securities subject to the ESPP; (ii) the classes and maximum number of securities by which the number of shares subject to the ESPP are to automatically increase each year; (iii) the classes and number of securities subject to, and the purchase price applicable to, outstanding offerings and purchase rights; and (iv) the classes and number of securities that are subject to any purchase limits under an ongoing offering.

Corporate Transactions

In the event of certain specified significant corporate transactions, any surviving or acquiring corporation (or its parent company) may assume or substitute similar purchase rights for those outstanding under the ESPP. If the surviving or acquiring corporation (or its parent company) does not assume such rights or substitute similar rights, then the next purchase date in the then-current offering will be accelerated to a date within 10 business days before the consummation of such transaction, the participants' accumulated payroll deductions will be applied to the purchase of shares of our common stock on such date and such purchase rights and all ongoing offerings will terminate immediately after such purchase.

Plan Amendments and Termination

Our Board has the authority to amend or terminate the ESPP. However, no amendment or termination of the ESPP will impair any outstanding purchase rights previously granted to a participant unless agreed to by the affected participant or as required by law or regulation. We will obtain stockholder approval of any amendment to the ESPP as required by applicable law or listing requirements.

U.S. Federal Income Tax Consequences

The information set forth below is only a summary and does not purport to be complete. The information is based upon current U.S. federal income tax rules and therefore is subject to change when those rules change. Because the tax consequences to any participant may depend on his or her particular situation, each participant should consult his or her tax adviser regarding the federal, state, local, and other tax consequences of his or her participation in the ESPP. The ESPP is not qualified under the provisions of Section 401(a) of the Code and is not subject to any of the provisions of the Employee Retirement Income Security Act of 1974.

Shares under the ESPP are purchased using after-tax employee contributions. A participant recognizes no taxable income either as a result of commencing participation in the ESPP or purchasing shares of our common stock under the terms of the ESPP.

If a participant does not hold shares purchased under the ESPP for more than two years from the first day of the applicable offering and more than one year from the date of purchase, or a disqualifying disposition, the participant will recognize ordinary income in the year of such disposition equal to the amount by which the fair market value of the shares of common stock on the date such shares were purchased exceeds the purchase price. The amount of ordinary income will be added to the participant's basis in the shares, and any additional gain or resulting loss recognized on the disposition of the shares will be a capital gain or loss. A capital gain or loss will be long-term if the participant's holding period is more than one year; otherwise it will be short-term.

If the participant disposes of shares purchased under the ESPP more than two years after the first day of the applicable offering period and more than one year after the date of purchase, the participant will recognize ordinary income in the year of disposition equal to the lesser of (i) the excess of the fair market value of the shares on the date of disposition over the purchase price, and (ii) the excess of the fair market value of the shares on the first day of the applicable offering over the purchase price. The amount of any ordinary income will be added to the participant's basis in the shares, and any additional gain recognized upon the disposition after such basis adjustment will be long-term capital gain. If the fair market value of the shares on the date of disposition is less than the purchase price, there will be no ordinary income and any loss recognized will be a long-term capital loss.

We are generally entitled to a deduction in the year of a disqualifying disposition equal to the amount of ordinary income recognized by the participant as a result of the disposition. In all other cases, we will not be entitled to a deduction.

New Plan Benefits

Participation in the ESPP is voluntary and each eligible employee will make his or her own decision whether and to what extent to participate in the ESPP. It is therefore not possible to determine the benefits or amounts that will be received in the future by individual employees or groups of employees under the ESPP. However, the table below sets forth certain information regarding the number of shares purchased during the year ended December 31, 2010 pursuant to the Prior ESPP by each of (i) the named executive officers identified in the "*Executive Compensation and Related Information—Summary Compensation Table*" contained in this proxy statement, (ii) all current executive officers as a group, (iii) our current non-executive directors as a group, and (iv) all employees, other than executive officers, as a group.

Name and Position	No. of Shares Purchased under the Prior ESPP
Daniel N. Swisher, Jr. ..... *CEO and President*	—
Eric H. Bjerkholt ..... *Senior Vice President, Corporate Development and Finance, Chief Financial Officer and Corporate Secretary*	—
Steven B. Ketchum, Ph.D. ..... *Senior Vice President, Research and Development*	—
Executive Group (3 persons)	—
Non-Executive Director Group(1) (7 persons)	—
Non-Executive Officer Employee Group (24 persons)	3,528

(1) Non-executive members of our Board are not eligible to participate in the ESPP.

Required Vote and Board of Directors Recommendation

Approval of Proposal No. 4 requires the affirmative vote of a majority of the shares present or represented by proxy and entitled to vote at the Annual Meeting. Abstentions will be counted toward the tabulation of votes cast on the proposal and will have the same effect as "Against" votes. Broker non-votes are counted towards a quorum, but will have no effect on the outcome of the vote.

Our Board believes that approval of Proposal No. 4 is in our best interest and the best interest of our stockholders for the reasons stated above.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE *FOR* PROPOSAL NO. 4.

INFORMATION ABOUT THE BOARD OF DIRECTORS AND CORPORATE GOVERNANCE

Meetings of the Board of Directors

Our Board held nine meetings during 2010. Each Board member attended 75% or more of the aggregate meetings of the Board and of the committees on which he or she served.

Independence of the Members of the Board of Directors

The laws and rules governing public companies and the NASDAQ listing requirements obligate our Board to affirmatively determine the independence of its members. The Board consults with our corporate counsel to ensure that the Board's determinations are consistent with relevant securities and other laws and regulations regarding the definition of "independent," including those set forth in NASDAQ listing requirements, as in effect from time to time.

Consistent with these considerations, after a review of all relevant transactions or relationships between each director, or any of their family members, and Sunesis, our senior management and our independent registered public accounting firm, the Board has affirmatively determined that Ms. Kim, Drs. Pearce and Stump and Messrs. Fust, Hurwitz and Misfeldt, a majority of our Board, are independent directors within the meaning of the applicable NASDAQ listing requirements.

In making its determination of independence, the Board considered our consulting relationships with Drs. Pearce and Stump and the relationships of Messrs. Hurwitz and Misfeldt and Ms. Kim with certain of our principal stockholders, which are described under "*Director Compensation*" beginning on page 38 of this proxy statement. In 2010, neither Dr. Pearce nor Dr. Stump received consulting fees pursuant to these arrangements. Our Board does not believe that these stockholder relationships or these consulting arrangements interfere with these directors' exercise of independent judgment in carrying out their responsibilities as directors.

Board Leadership Structure

The Board is currently chaired by Dr. Young, Sunesis' former Executive Chairman. Dr. Young, or the Board Chairman, has authority, among other things, to call and preside over Board meetings, to set meeting agendas and to determine materials to be distributed to the Board. Accordingly, the Board Chairman has substantial ability to shape the work of the Board. We believe that separation of the positions of Board Chairman and CEO reinforces the independence of the Board in its oversight of our business and affairs. In addition, we believe that such separation creates an environment that is more conducive to objective evaluation and oversight of management's performance, increasing management accountability and improving the ability of the Board to monitor whether management's actions are in the best interests of Sunesis and its stockholders. As a result, we believe that having a Board Chairman separate from the CEO can enhance the effectiveness of the Board as a whole. In addition, Dr. Young's previous position as Executive Chairman helps ensure that the Board and management act with a common purpose. In our view, having a Board Chairman far removed from management has the potential to give rise to divided leadership, which could interfere with good decision making or weaken our ability to develop and implement strategy. Instead, we believe that Dr. Young's former management position makes him best positioned to act as a bridge between management and the Board, facilitating the regular flow of information and implementation of our strategic initiatives and business plans. We also believe that it advantageous to have a Board Chairman with extensive history and knowledge of Sunesis, as is the case with Dr. Young.

Role of the Board in Risk Oversight

The Board has an active role in overseeing management of Sunesis' risks, which it administers directly as well as through various Board standing committees that address risks inherent in their respective areas of oversight. In particular, our Board is responsible for monitoring and assessing strategic risk exposure, including

information regarding our credit, liquidity and operations and the risks associated with each. Our primary risks are currently associated with our ability to raise additional capital to complete the development and potential commercialization of vosaroxin, and the various risks associated with the development of vosaroxin. The Audit Committee of the Board has the responsibility to consider and discuss our major financial risk exposures and the steps our management has taken to monitor and control these exposures. However, due to the criticality of these risks, they are also discussed to a great extent by the full Board at regularly scheduled meetings, or at ad hoc meetings with the full Board or a subset thereof. The Board also monitors the various risks associated with the development of vosaroxin, drawing on the experience and insight of the full membership thereof. The Audit Committee also monitors compliance with legal and regulatory requirements, in addition to oversight of the performance of our internal controls over financial reporting. The Nominating and Corporate Governance Committee of the Board, or the Nominating Committee, monitors the effectiveness of our corporate governance guidelines, including whether they are successful in preventing illegal or improper liability-creating conduct, and manages risks associated with the independence of the Board and potential conflicts of interest. The Compensation Committee assesses and monitors whether any of our compensation policies and programs has the potential to encourage excessive risk taking. While each committee is responsible for evaluating certain risks and overseeing management of such risks, the entire Board is regularly informed through committee reports about such risks.

Executive Sessions

The independent directors meet in executive session without management directors, non-independent directors or management present. These sessions take place prior to or following regularly scheduled Board meetings. The directors met in such sessions four times during 2010.

Information Regarding Committees of the Board of Directors

Our Board has three standing committees: the Audit Committee; the Compensation Committee; and the Nominating Committee. Each of these three standing committees has a written charter approved by our Board that reflects the applicable standards and requirements adopted by the SEC and NASDAQ. A copy of each charter can be found on our website, *www.sunesis.com*, under the section titled "Investors & Media" and under the subsection "Corporate Governance." Information contained in, or accessible through, our website is not a part of this proxy statement. The following table provides membership and meeting information for 2010 for each of the committees of the Board:

Name	Audit	Compensation	Nominating
Matthew K. Fust	X*	X	
Edward Hurwitz	X	X	
Dayton Misfeldt		X*	X
Homer L. Pearce, Ph.D.			X*
David C. Stump, M.D.	X		
Total Meetings in 2010	7	9	1

* Committee Chairman.

Below is a description of each standing committee of the Board. The Board has determined that each committee member meets the applicable NASDAQ rules and regulations regarding "independence" and is free of any relationship that would impair his individual exercise of independent judgment with regard to Sunesis. The standing committees regularly report to the Board on their actions and recommendations. The committees periodically review their charters and assess their own performance. In addition, the Board, through the Nominating Committee, conducts an annual review of the role, function, roster and operation of each of the Board's standing committees.

Audit Committee

The Audit Committee was established by our Board to oversee our corporate accounting and financial reporting processes and audits of our financial statements. For this purpose, our Audit Committee is responsible for, among other things:

- overseeing the accounting and financial reporting processes of Sunesis and the audits of our financial statements, including reviewing our disclosures under "Management's Discussion and Analysis of Financial Condition and Results of Operations," earnings press releases and earnings guidance provided to analysts and ratings agencies;
- assisting our Board in its oversight of the integrity of our financial statements;
- determining and approving the initial engagement and retention of the independent registered public accounting firm;
- reviewing and approving the independent registered public accounting firm's performance of any proposed permissible audit and non-audit services and the fees for such services;
- reviewing and approving or rejecting transactions between us and any related persons;
- reviewing significant issues regarding accounting principles and financial statement presentations, including any significant changes in our selection or application of accounting principles, policies or practices;
- conferring with management and the independent registered public accounting firm regarding our policies and procedures regarding risk assessment and management;
- establishing procedures, as required under applicable law, for the receipt, retention and treatment of complaints received by us regarding accounting, internal accounting controls or auditing matters and the confidential and anonymous submission by employees or agents of concerns regarding questionable accounting or auditing matters;
- reviewing with counsel, the independent registered public accounting firm and management, as appropriate, any significant regulatory or other legal or accounting initiative or matter that may have a material impact on our financial statements, compliance programs and policies; and
- preparing the report required by the SEC rules to be included in our annual proxy statement.

The Audit Committee is chaired by Mr. Fust, and also includes Mr. Hurwitz and Dr. Stump. The Board reviews the NASDAQ definition of "independence" for Audit Committee members on an annual basis and has determined that all members of our Audit Committee are independent (as independence is currently defined in Rule 5605(c)(2)(A)(i) and (ii) of the NASDAQ listing requirements). The Board has also determined that Mr. Fust qualifies as an "audit committee financial expert," as defined in applicable SEC rules. The Board made a qualitative assessment of Mr. Fust's level of knowledge and experience based on a number of factors, including his formal education and experience as a chief financial officer for public reporting companies.

Report of the Audit Committee of the Board of Directors

The Audit Committee oversees our accounting and financial reporting processes and the audits of our financial statements on behalf of the Board. Management has the primary responsibility for establishing and maintaining adequate internal control over financial reporting, preparing the financial statements, and establishing and maintaining adequate controls over public reporting. Our independent registered public accounting firm for 2010, Ernst & Young, had responsibility for conducting an audit of our annual financial

statements in accordance with the standards of the Public Company Accounting Oversight Board (United States), or PCAOB, and expressing an opinion on the conformity of those audited financial statements with U.S. generally accepted accounting principles.

In fulfilling its oversight responsibilities, the Audit Committee reviewed and discussed with management and with Ernst & Young our audited consolidated financial statements for the year ended December 31, 2010 included in our Annual Report on Form 10-K, including a discussion of the quality, not just the acceptability, of the accounting principles, the reasonableness of significant judgments and the clarity of disclosures in the financial statements.

The Audit Committee is responsible for evaluating, managing and approving the engagement of the independent registered public accounting firm, including the scope, extent and procedures for the annual audit and the compensation to be paid for these services, and all other matters the Audit Committee deems appropriate, including ensuring the independent registered public accounting firm's accountability to the Board and the Audit Committee.

The Audit Committee has discussed with Ernst & Young the matters required to be discussed by Statement on Auditing Standards No. 61, as amended ("*Codification of Statements on Auditing Standards*," AICPA, *Professional Standards*, Vol. 1. AU section 380), which include, among other items, matters related to the conduct of the audit of our financial statements. The Audit Committee has also received the written disclosures and the letter from Ernst & Young required by applicable requirements of the PCAOB regarding Ernst & Young's communications with the audit committee concerning independence, and has discussed with Ernst & Young their independence.

Based on the review and discussions referred to above, the Audit Committee has recommended to the Board that the audited consolidated financial statements be included in our Annual Report on Form 10-K for the year ended December 31, 2010.

Matthew K. Fust, *Chairman*
Edward Hurwitz
David C. Stump, M.D.

The material in this report is not "soliciting material," is not deemed "filed" with the SEC and is not to be incorporated by reference in any of our filings under the Securities Act of 1933, as amended, or the Securities Act, or the Exchange Act, other than our Annual Report on Form 10-K, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

Compensation Committee

Our Compensation Committee is responsible for, among other things:

- fulfilling the Board's role in overseeing our compensation plans, policies and programs, including reviewing and approving corporate performance goals and objectives;
- assisting our Board in discharging its responsibilities with respect to officer, employee, consultant and director compensation, including making recommendations to our Board regarding non-employee director compensation;
- establishing corporate and individual performance objectives relevant to the compensation of our executive officers and other senior management and evaluating their performance in light of these stated objectives;
- reviewing and discussing the disclosures contained in our Compensation Discussion and Analysis report included in our annual proxy statement, if required;

- preparing the report required by SEC rules to be included in our annual proxy statement, if required;

- supervising the administration of our stock option plans, employee stock purchase plan and other compensation and incentive programs and administering any plans and programs designed and intended to provide compensation for our officers, including severance arrangements and change of control protections; and

- determining and approving the compensation and establishing the individual performance objectives relevant to compensation of our CEO, Executive Chairman (if one is serving), as well as for our other executive officers and senior management.

The Compensation Committee is chaired by Mr. Misfeldt, and also includes Messrs. Hurwitz and Fust. All members of our Compensation Committee are "independent" (as independence is currently defined in Rule 5605(c)(2)(A)(i) and (ii) of the NASDAQ listing requirements). Each member of the Compensation Committee is an "outside" director as that term is defined in Section 162(m) of the Code and a "non-employee" director within the meaning of Rule 16b-3 of the rules promulgated under the Exchange Act.

Role and Authority of the Compensation Committee and the Board

The Compensation Committee is charged with determining and approving the compensation of our CEO and other members of senior management, including those designated as reporting officers under Section 16 of the Exchange Act and referred to as executive officers.

In recommending or determining (as applicable) executive compensation, the Compensation Committee and the Board take into consideration each executive's success in achieving his or her individual performance goals and objectives and the achievement of our corporate performance goals and objectives deemed relevant to such executive. The Compensation Committee and our Board also consider the compensation paid to similarly situated officers at comparable companies, the compensation paid to executives in past years and any other factors deemed appropriate under the circumstances. In addition, in the case of the long-term equity incentive component of compensation, the Compensation Committee and the Board consider Sunesis' performance and relative stockholder return.

While the Compensation Committee is ultimately responsible for making all compensation decisions affecting our executives, our CEO plays an important role in the process underlying such decisions. However, none of our executives participate in the portion of any Compensation Committee or Board meetings regarding the review of his or her own performance or the determination of the actual amounts of his or her compensation.

Compensation Committee Process

Throughout the year, the Compensation Committee meets in person or via telephone. As a general rule, the Compensation Committee conducts the annual process described below with respect to determining executive compensation:

Review Overall Compensation Philosophy. The compensation process for the upcoming year generally begins in the prior year, with a review and analysis of our total compensation philosophy to confirm the frame of reference which will be used in setting compensation for the upcoming year. This analysis also includes a determination of the composition of our peer group and the target levels of various components of compensation based on market data from such peer group. At the request of the Compensation Committee, a compensation consulting firm may assist with this analysis.

During 2010, the Compensation Committee retained Radford Surveys + Consulting, or Radford, an independent compensation consulting firm, to assist in reviewing our overall compensation philosophy in comparison to market trends and industry standards, designing the peer group of companies for benchmarking and assessing competitive market data on executive compensation. Representatives from Radford attended certain Compensation Committee meetings in 2010 at the request of the Compensation Committee and made recommendations, including recommendations relating to executive compensation for 2011.

Analyze Peer Data; Make Equity Awards. Annually, a representative of management compiles data regarding executive total compensation (base salary, bonus and equity) from our selected peer group, with the assistance of a compensation consulting firm as deemed necessary. The Compensation Committee then meets to review the peer data to determine the equity awards to be granted to executives. The same data is also analyzed in preparation for making any adjustments to base salary and bonus targets in the coming year.

Approve Corporate Objectives for the Coming Year. The Compensation Committee typically meets to select the corporate objectives against which to measure executive performance for the coming year and to recommend such objectives to the full Board for adoption. In addition, the Compensation Committee reviews and approves individual performance goals and objectives for our executive officers.

Assess Prior Year's Performance; Determine Bonuses. Historically, every year, the Compensation Committee engages in an active dialogue with our CEO regarding Sunesis' performance in the prior year as measured against the established corporate objectives for such year. The Compensation Committee also reviews with our CEO the performance of each executive, taking into consideration each executive's success in achieving his or her individual and applicable team objectives and the achievement of our corporate objectives deemed relevant to such executive. Our CEO also provides his evaluation of his own performance for the prior year. Our CEO then makes recommendations to the Compensation Committee of individual amounts of bonuses (other than for himself) in light of the analysis of the prior year's performance.

The Compensation Committee reviewed and approved both corporate and individual performance objectives for the periods from May 8, 2009 to April 30, 2010 and June 30, 2010 to December 31, 2010, or the Performance Periods, which formed the basis for the evaluation of bonuses to be paid to employees under the 2009 Bonus Program and 2010 Bonus Program, respectively. The Compensation Committee also approved resolutions recommending such performance objectives for both Performance Periods to the Board for approval. The performance objectives for both Performance Periods were approved by the Board. See section titled "*Executive Compensation and Related Information—Narrative to Summary Compensation Table—2009 Bonus Program*" and "*Executive Compensation and Related Information—Narrative to Summary Compensation Table—2010 Bonus Program*" below for more information regarding our 2009 Bonus Program and 2010 Bonus Program.

Determine Base Salary, Bonus Target and Individual Objectives for the Coming Year. Each year, the Compensation Committee meets to discuss and, as appropriate, approve adjustments to base salary and bonus targets for executives for the coming year. At this time, the Compensation Committee will generally review our established total compensation philosophy, as well as the selected peer group data previously compiled by a representative of management and a compensation consulting firm, if engaged. Our CEO will make recommendations to the Compensation Committee regarding the base salary and bonus targets of executives (other than for himself) based on such data. As part of this process, each executive will work with our CEO to develop individual performance goals for the new performance period. The Compensation Committee will then approve total compensation of our CEO, including base salary, bonus and equity compensation and approval of individual objectives for the applicable new performance period.

In early 2010, the Compensation Committee reviewed executive compensation and determined not to increase our executive base salaries for 2010. Due to the atypical Performance Period under the 2009 Bonus Program, the Compensation Committee did not approve the 2010 Bonus Program and related bonus targets and

objectives until September 2010. See section titled "*Executive Compensation and Related Information—Narrative to Summary Compensation Table—2009 Bonus Program*" below for more information regarding our 2009 Bonus Program.

Nominating and Corporate Governance Committee

Our Nominating Committee is responsible for, among other things:

- recommending to our Board the composition and operations of our Board;
- identifying and evaluating individuals qualified to serve as members of our Board, and recommending to our Board director nominees for the annual meeting of stockholders and to fill vacancies;
- overseeing all aspects of corporate governance on behalf of our Board, including making recommendations regarding corporate governance issues and developing a set of corporate governance guidelines applicable to us;
- recommending to our Board the responsibilities of each Board committee, the composition and operation of each Board committee, and director nominees for assignment to each Board committee; and
- overseeing our Board's annual evaluation of its performance and the performance of our Board committees.

The Nominating Committee is chaired by Dr. Pearce and also includes Mr. Misfeldt, each of whom is "independent" within the meaning of applicable SEC rules and NASDAQ listing requirements.

Director Nominations Process

The Nominating Committee is charged with monitoring the size and composition of our Board. In addition, the Nominating Committee has primary responsibility for reviewing, evaluating and recommending to the Board the slate of nominees for directors to be elected by the stockholders at each annual meeting of stockholders and, where applicable, to fill vacancies. In its exercise of these responsibilities, the Nominating Committee considers the appropriate size and composition of our Board, taking into account that our Board as a whole should have competency in the following areas:

- industry knowledge;
- accounting and finance;
- business judgment;
- management;
- leadership;
- business strategy;
- corporate governance; and
- risk management.

The Nominating Committee evaluates the types of backgrounds, skills, and attributes which are needed to help strengthen our Board in light of the need for an appropriate balance of the above competencies. This evaluation takes place in the context of the current composition of the Board, our operating requirements and the interests of Sunesis and our stockholders.

The Nominating Committee identifies nominees for director by first evaluating the current directors whose terms are about to expire, considering the above criteria and any potential conflicts of interest as well as applicable independence and experience requirements. In the case of incumbent directors whose terms are about to expire, the Nominating Committee considers the director's demonstrated service and commitment to Sunesis, as well as his or her willingness to continue in service on our Board. If any incumbent director whose term is expiring does not wish to continue in service as a director, if the Nominating Committee decides not to nominate a member for re-election, or if the Nominating Committee wishes to increase the size of the Board, it will identify the desired skills and experience of a new nominee as outlined above unless the Board determines not to fill the vacancy. In 2010, we did not engage a third party to identify or assist in identifying potential director nominees, although we have done so in the past and reserve the right to do so in the future.

In addition to evaluating core competencies, when considering candidates for director, the Nominating Committee will consider whether such candidates have sufficient time to devote to the affairs of Sunesis as well as each candidate's reputation for integrity and commitment to rigorously represent the long-term interests of our stockholders. Other considerations include any potential conflicts of interest as well as applicable independence and experience requirements as set forth by applicable NASDAQ and SEC rules and regulations. In addition, the Nominating Committee balances the value of continuity of service of incumbent Board members with that of obtaining new perspectives. With respect to new candidates for the Board, the Nominating Committee will also conduct any necessary or appropriate inquiries into the backgrounds and qualifications of such candidates. The Nominating Committee also believes that the Board should be comprised of individuals whose backgrounds and experience complement those of other Board members, and also considers whether a prospective nominee promotes a diversity of talent, skill, expertise, background, perspective and experience, including with respect to age, gender, ethnicity, place of residence and specialized experience. The Nominating Committee does not assign specific weights to particular criteria and nominees are not required to possess any particular attribute.

In addition, in connection with the initial closing of the Private Placement, the Company entered into an Investor Rights Agreement, pursuant to which the investors in the Private Placement have certain Board designation rights, as further described in "*Certain Relationships and Related Party Transactions—Investor Rights Agreement.*" These designation rights may cause the composition of the Board to be different than it would have been without such designation rights, and may impact the retention of current members or the selection of future members of the Board.

The Nominating Committee also recommends to our Board the responsibilities and composition of the Board's committees and evaluates and recommends to the Board those directors to be appointed to the various committees, including the directors recommended to serve as chairman of each committee. The evaluation of such appointments takes into consideration, among other factors, applicable independence and experience requirements as set forth by applicable NASDAQ and SEC rules and regulations and the membership criteria specified in the relevant committee charter.

The Nominating Committee will consider director candidates recommended by our stockholders. The committee does not intend to alter the manner in which it evaluates candidates, including the criteria set forth above, based on whether or not the candidate is recommended by a stockholder. The Nominating Committee will consider stockholders' nominations for directors only if written notice is timely received by our Corporate Secretary at Sunesis Pharmaceuticals, Inc., 395 Oyster Point Boulevard, Suite 400, South San Francisco, California 94080, and contains the information required for such nominations in accordance with our bylaws. To be timely, notice must be received not less than 120 days prior to the first anniversary of the date on which we first mailed a proxy statement to stockholders in connection with the preceding year's annual meeting, unless the date of the annual meeting has been changed by more than 30 days from the date of the prior year's meeting, in which case notice must be received not later than the later of the 120th day prior to such annual meeting or the 10th day following the day on which public announcement of the date of such meeting is first made. Submissions must include the full name of the proposed nominee, a description of the proposed nominee's business experience for at least the previous five years, complete biographical information, a description of the proposed

nominee's qualifications as a director and a representation that the nominating stockholder is a beneficial or record holder of our stock and has been a holder for at least one year. Any such submission must be accompanied by the written consent of the proposed nominee to be named as a nominee and to serve as a director if elected. The Nominating Committee did not receive any stockholder nominations during 2010.

Director Evaluations

On an annual basis, the Nominating Committee conducts an evaluation of the Board, the functioning of the committees and each individual member of the Board as deemed appropriate and necessary.

Stockholder Communications with the Board of Directors

Our stockholders may communicate with the Board by writing to our Corporate Secretary at Sunesis Pharmaceuticals, Inc., 395 Oyster Point Boulevard, Suite 400, South San Francisco, California 94080. Our Corporate Secretary will review these communications and will determine whether they should be presented to our Board. The purpose of this screening is to allow the Board to avoid having to consider irrelevant or inappropriate communications. All communications directed to the Audit Committee in accordance with our Complaint, Investigation and Whistleblower Policy that relate to questionable accounting or auditing matters involving Sunesis will be promptly and directly forwarded to the chairman of the Audit Committee.

Annual Meeting Attendance

We have a corporate policy that encourages our directors to attend our annual stockholder meetings. In 2010, Mr. Swisher and Dr. Young attended our annual meeting.

Corporate Governance Guidelines

Our Board has documented our governance practices by adopting Corporate Governance Guidelines to assure that the Board will have the necessary authority and practices in place to review and evaluate our business operations as needed and to make decisions that are independent of our management. The guidelines are also intended to align the interests of directors and management with those of our stockholders. The Corporate Governance Guidelines clarify the role of the Board in reviewing, approving and monitoring fundamental financial and business strategy and major corporate actions; ensuring processes are in place for maintaining the integrity of Sunesis and its financial statements; assessing major risks presented to Sunesis and reviewing options for their mitigation; and selecting, evaluating and compensating our CEO, Chairman and other officers of Sunesis. The Corporate Governance Guidelines also set forth the practices our Board intends to follow with respect to director qualification and selection, board composition and selection, board meetings and involvement of senior management, board committee composition and selection, director access to management and independent advisors, and non-employee director compensation and continuing education. The Corporate Governance Guidelines were adopted by the Board to, among other things, reflect changes to the legal and regulatory requirements, including the NASDAQ listing requirements and SEC rules, and evolving best practices and other developments.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our executive officers, directors and persons who own more than 10% of our common stock to file reports of ownership and changes in ownership with the SEC. Executive officers, directors and greater than 10% stockholders are required by SEC regulations to furnish us with copies of all Section 16(a) forms they file.

To our knowledge, based solely on a review of the copies of reports furnished to us, we believe that during the year ended December 31, 2010, our executive officers, directors and greater than 10% stockholders

complied with all Section 16(a) filing requirements, except that the seven reports covering the annual automatic grants of options to purchase shares of our common stock to our non-employee directors for 2010 were filed late as a result of an administrative error.

Director Compensation

Board and Committee Fees and Awards.

On the date of our annual meeting of stockholders each year through the date of our 2010 annual meeting of stockholders, each non-employee director of our Board (other than the Chairman of our Board) was entitled to receive an annual payment of $20,000 and our non-employee Chairman of our Board was entitled to receive an annual payment of $50,000, each in connection with his or her services as a director and Chairman of our Board, respectively. Additionally, each non-employee director who served on a committee was entitled to receive an annual payment of $5,000 for service as chairman of a committee and an annual payment of $3,000 for service as a member on a committee.

In June 2010, based on a review of director compensation at peer companies provided by Radford, the Compensation Committee recommended and the Board approved certain increases to the annual compensation for our non-employee directors of the Board. Specifically, on the date of our annual meeting of stockholders each year, beginning in 2011, each non-employee director of our Board (other than the Chairman of our Board) will be entitled to receive an annual payment of $30,000 and our non-employee Chairman of our Board will be entitled to receive an annual payment of $50,000 (this amount was kept flat), each in connection with his or her services as a director and Chairman of our Board, respectively. Additionally, the non-employee director who serves as chairman of the Audit Committee, Compensation Committee or Nominating Committee will be entitled to receive an annual payment of $10,000, $7,500 and $7,500, respectively, for service as chairman. Each non-employee director who serves on a committee will be entitled to receive an annual payment of $5,000 for service as a member of the committee.

Messrs. Hurwitz and Misfeldt directors waived their cash compensation in 2010. Our CEO did not receive any additional compensation in 2010 for his service on our Board.

In addition to the Board and committee fees discussed above, non-employee directors have historically received an initial grant of non-qualified stock options to purchase 5,000 shares of our common stock under the 2005 Plan. These options vest over a two-year period, with 50% annual vesting on each anniversary of the grant date. In addition, on the date of our annual meeting of stockholders each year, each continuing non-employee director received a non-qualified stock option grant to purchase 1,667 shares of our common stock under the 2005 Plan. These options vest in equal installments over a 12-month period from the grant date. However, if the 2011 Plan is approved by our stockholders, any future stock option grants to our non-employee directors will be made under the 2011 Plan in amounts to be determined at a later date. No grants will be made to our non-employee directors under the 2005 Plan in connection with the Annual Meeting.

Consulting Arrangements.

We have entered into consulting agreements with Drs. Pearce and Stump.

In August 2006, we entered into a consulting agreement with Dr. Pearce under which his services include reviewing, assessing and advising us on our development plans and strategies. Pursuant to the consulting agreement, Dr. Pearce is entitled to receive up to $3,000 a day, prorated at an hourly rate of $375 an hour, for his consulting services. Total payments to Dr. Pearce under this agreement may not exceed $40,000 during any one-year period. In 2010, Dr. Pearce received no consulting fees pursuant to this arrangement.

In September 2006, we entered into a consulting agreement with Dr. Stump under which his services include reviewing, assessing and advising us on our development plans and strategies. Pursuant to the consulting agreement, Dr. Stump is entitled to receive up to $3,000 a day, prorated at an hourly rate of $375 an hour, for his consulting services. Total payments to Dr. Stump under this agreement may not exceed $40,000 during any one-year period. In 2010, Dr. Stump received no consulting fees pursuant to this arrangement.

Director Compensation Table

The following table sets forth the compensation information for our non-employee directors, as well as Dr. Young, the current Chairman of our Board and former Executive Chairman, for the year ended December 31, 2010. The compensation received by Mr. Swisher, as a named executive officer, is set forth in the "*Executive Compensation and Related Information—Summary Compensation Table*" on page 41 of this proxy statement.

Name	Fees Earned or Paid in Cash ($)(1)	Option Awards ($)(2)(3)	All Other Compensation ($)	Total ($)
Matthew K. Fust	45,000	5,393	—	50,393
Edward Hurwitz	—	5,393	—	5,393
Helen S. Kim	30,000	5,393	—	35,393
Dayton Misfeldt	—	5,393	—	5,393
Homer L. Pearce, Ph.D.	37,500	5,393	—	42,893
David C. Stump M.D.	35,000	5,393	—	40,393
James W. Young, Ph.D.	50,000	5,393	9,511(4)	64,904

(1) Consists of fees earned for Board and committee meeting attendance as described above.

(2) The dollar amounts in this column represent the aggregate grant date fair value of stock option awards granted pursuant to our equity compensation plans in the year ended December 31, 2010. These amounts have been calculated in accordance with FASB ASC Topic 718. Pursuant to SEC rules, the amounts shown exclude the impact of estimated forfeitures related to service-based vesting conditions. For additional information on the valuation assumptions, refer to Note 10, *Stock-Based Compensation* to the Notes to Consolidated Financial Statements in our Annual Report on Form 10-K for the year ended December 31, 2010 which identifies assumptions made in the valuation of option awards in accordance with FASB ASC Topic 718.

(3) On June 2, 2010, each non-employee director received a stock option to purchase 1,667 shares. The aggregate grant date fair value of each such option award was $5,393, calculated in accordance with FASB ASC Topic 718. As of December 31, 2010, each non-employee director held stock options to purchase the following aggregate number of shares of our common stock: Mr. Fust held options to purchase 28,335 shares of our common stock; Messrs. Hurwitz and Misfeldt each held options to purchase 8,334 shares of our common stock; Ms. Kim held options to purchase 18,334 shares of our common stock; Drs. Pearce and Stump each held options to purchase 26,668 shares of our common stock; and Dr. Young held options to purchase 73,188 shares of our common stock.

(4) Consists of $9,511 in health care benefits paid by us. See the section titled "*Executive Compensation and Related Information—Post-Termination Compensation—Medical Benefits*" below.

CERTAIN INFORMATION WITH RESPECT TO EXECUTIVE OFFICERS

Biographies of Our Executive Officers

Set forth below is information regarding each of our executive officers as of March 15, 2011. Biographical information with regard to Mr. Swisher is presented under "*Proposal No. 1: Election of Nominees to the Board of Directors*" on page 7 of this proxy statement.

Name	Age	Position
Daniel N. Swisher, Jr.	47	CEO, President and Director
Eric H. Bjerkholt	51	Senior Vice President, Corporate Development and Finance and Chief Financial Officer
Steven B. Ketchum, Ph.D.	46	Senior Vice President, Research and Development

The principal occupations and positions for at least the past five years of our executive officers, other than Mr. Swisher, are as follows:

Eric H. Bjerkholt has served as our Senior Vice President, Corporate Development and Finance and Chief Financial Officer since February 2007. From January 2004 to January 2007, he served as our Senior Vice President and Chief Financial Officer. From January 2002 to January 2004, Mr. Bjerkholt served as Senior Vice President and Chief Financial Officer at IntraBiotics Pharmaceuticals, Inc., a pharmaceutical company focused on the development of antibacterial and antifungal drugs for the treatment of serious infectious diseases. Mr. Bjerkholt was a co-founder of LifeSpring Nutrition, Inc., a privately held nutraceutical company, and from May 1999 to March 2002 served at various times as its chief executive officer, President and chief financial officer. From 1990 to 1997, Mr. Bjerkholt was an investment banker at J.P. Morgan & Co. Mr. Bjerkholt is a member of the Board of Directors of StemCells, Inc., a biotechnology company. Mr. Bjerkholt holds a Cand. Oecon degree in Economics from the University of Oslo and an M.B.A. from Harvard Business School.

Steven B. Ketchum, Ph.D. has served as our Senior Vice President, Research and Development since June 2008. From May 2005 to May 2008, Dr. Ketchum served as Senior Vice President, Research & Development and Medical Affairs of Reliant Pharmaceuticals, Inc., a pharmaceutical company, which was acquired by GlaxoSmithKline in 2007. From June 2002 to April 2005, Dr. Ketchum served as Senior Vice President, Operations and Regulatory Affairs for IntraBiotics Pharmaceuticals, Inc. Dr. Ketchum also held positions at ALZA Corporation from November 1994 to May 2002, most recently as Senior Director, Regulatory Affairs. Dr. Ketchum earned a Ph.D. in Pharmacology from University College London (funded by the Sandoz Institute for Medical Research) and a B.S. in Biological Sciences from Stanford University.

EXECUTIVE COMPENSATION AND RELATED INFORMATION

Summary Compensation Table

The following table sets forth information regarding the compensation for services performed during the years ended December 31, 2010 and December 31, 2009 awarded to, paid to or earned by (i) our CEO, (ii) our Chief Financial Officer and (iii) our other most highly compensated executive officer, as determined by reference to total compensation for the year ended December 31, 2010. Such individuals are referred to as our "named executive officers," or NEOs, for the year ended December 31, 2010. All compensation awarded to, earned by, or paid to our NEOs are included in the table below for the years indicated.

Name and Principal Position	Year	Salary(1) ($)	Bonus ($)	Option Awards ($)(2)	Non-Equity Incentive Plan Compensation ($)(3)	All Other Compensation ($)	Total ($)
Daniel N. Swisher, Jr.	2010	405,000	$ —	—	232,875(4)	3,455(5)	641,330
CEO and President	2009	405,000	—	241,950	—	6,450	653,400
Eric H. Bjerkholt	2010	340,000	—	—	156,825(6)	3,466(7)	500,291
Senior Vice President, Corporate Development and Finance, Chief Financial Officer and Corporate Secretary	2009	340,000	—	145,170	—	5,966	491,136
Steven B. Ketchum, Ph.D.	2010	360,000	80,000(8)	—	176,850(9)	106,627(10)	723,477
Senior Vice President, Research and Development	2009	360,000	100,000(11)	145,170	—	137,280	742,450

(1) Includes amounts earned but deferred at the election of the named executive officer, such as salary deferrals under our 401(k) Plan established under Section 401(k) of the Code.

(2) The dollar amounts in this column represent the aggregate grant date fair value of stock option awards granted pursuant to our equity compensation plans in the year ended December 31, 2010. These amounts have been calculated in accordance with FASB ASC Topic 718. Pursuant to SEC rules, the amounts shown exclude the impact of estimated forfeitures related to service-based vesting conditions. For additional information on the valuation assumptions, refer to Note 10, *Stock-Based Compensation*, to the Notes to Consolidated Financial Statements in our Annual Report on Form 10-K for the year ended December 31, 2010 which identifies assumptions made in the valuation of option awards in accordance with FASB ASC Topic 718.

(3) Represents amounts earned under the 2009 Bonus Program and 2010 Bonus Program for performance from May 8, 2009 through April 30, 2010 and June 30, 2010 through December 31, 2010, respectively. Amounts earned under the 2009 Bonus Program were paid out on July 30, 2010. Amounts earned under the 2010 Bonus Program were paid out on February 28, 2011. See *"Narrative to Summary Compensation Table—2009 Bonus Program"* and *"Narrative to Summary Compensation Table—2010 Bonus Program"* below.

(4) Consists of (i) $81,000 earned under the 2009 Bonus Program, $40,500 of which was paid in the form of 13,917 fully vested shares of our common stock based on the closing price of $2.91 of our common stock on the NASDAQ Capital Market on July 30, 2010, and (ii) $151,875 earned under the 2010 Bonus Program, $75,937 of which was paid in the form of 36,160 fully vested shares our common stock based on the closing price of $2.10 of our common stock on the NASDAQ Capital Market on February 28, 2011.

(5) Consists of $325 for airline club fees, $630 in group life insurance premiums and $2,500 in matching 401(k) contributions.

(6) Consists of (i) $61,200 earned under the 2009 Bonus Program, $15,300 of which was paid in the form of 5,257 fully vested shares of our common stock based on the closing price of $2.91 of our common stock on the NASDAQ Capital Market on July 30, 2010, and (ii) $95,625 earned under the 2010 Bonus Program, $23,906 of which was paid in the form of 11,383 fully vested shares our common stock based on the closing price of $2.10 of our common stock on the NASDAQ Capital Market on February 28, 2011.

(7) Consists of $966 in group life insurance premiums and $2,500 in matching 401(k) contributions.

(8) Consists of bonuses paid on a discretionary basis by our Compensation Committee to cover Dr. Ketchum's commuting expenses. See "*Narrative to Summary Compensation Table—Offer Letter to Dr. Ketchum*" below.

(9) Consists of (i) $75,600 earned under the 2009 Bonus Program, $18,900 of which was paid in the form of 6,494 fully vested shares of our common stock based on the closing price of $2.91 of our common stock on the NASDAQ Capital Market on July 30, 2010, and (ii) $101,250 earned under the 2010 Bonus Program, $25,312 of which was paid in the form of 12,053 fully vested shares our common stock based on the closing price of $2.10 of our common stock on the NASDAQ Capital Market on February 28, 2011.

(10) Consists of $103,497 in housing allowances, $630 in group life insurance premiums and $2,500 in matching 401(k) contributions.

(11) Includes $50,000 paid as a signing bonus to Dr. Ketchum pursuant to his offer letter and $50,000 paid on a discretionary basis by our Compensation Committee to cover Dr. Ketchum's commuting expenses. See "*Narrative to Summary Compensation Table—Offer Letter to Dr. Ketchum*" below.

Narrative to Summary Compensation Table

Offer Letter to Dr. Ketchum

Pursuant to Dr. Ketchum's offer letter, dated June 2, 2008, we agreed to pay Dr. Ketchum a $100,000 signing bonus payable in two installments. The first installment of $50,000 of Dr. Ketchum's signing bonus was paid in 2008. The second installment of $50,000 of Dr. Ketchum's signing bonus was paid in 2009, as well as an additional $50,000 bonus paid to Dr. Ketchum on an ad hoc basis in connection with his commute from his home in Far Hills, New Jersey to our offices, which amounts are reflected in the "Bonus" column for the year ended December 31, 2009 of the *Summary Compensation Table*. Similar bonuses totaling $80,000 were also paid to Dr. Ketchum on an ad hoc basis in 2010 in connection with his commute, which amount is reflected in the "Bonus" column for the year ended December 31, 2010 of the *Summary Compensation Table*.

2009 Bonus Program

In May 2009, our Board approved the 2009 Bonus Program, which provided our executive officers and other eligible employees the opportunity to earn cash bonuses based on the level of achievement from the date of adoption through March 31, 2010 by us of certain corporate objectives and by each participant of certain individual performance objectives. A participant must have remained an employee through the payment date under the program to have earned a cash bonus.

The program originally provided that the closing of a financing or corporate transaction with net proceeds of $20.0 million had to occur on or before March 31, 2010 in order for bonuses to be earned under the program,

or the Financing Threshold. In March 2010, the board extended the end date of the period covered by the program from March 31, 2010 to April 30, 2010 and removed the Financing Threshold. However, if our cash balance did not equal or exceed $25.0 million on or before July 31, 2010, or the Cash Balance Threshold, as a result of proceeds from one or more transactions deemed to be aligned with the value-creating objectives of the program, no cash bonuses would have been earned under the program regardless of whether the corporate objectives and/or individual objectives were deemed to be achieved by the Compensation Committee.

The Board, with input from the Compensation Committee, approved the corporate objectives and assigned a weighting to each such objective. The Compensation Committee set the individual objectives of our CEO, as well as the individual objectives of the remaining executive officers based on the recommendations of the CEO. The individual objectives of non-executive participants were set by each participant's immediate supervisor.

Each eligible participant in the 2009 Bonus Program was eligible to receive a cash bonus in an amount up to a specified percentage of such participant's annual base salary earned in 2009, or the 2009 Bonus Targets. The 2009 Bonus Targets ranged from 25.0% to 40.0% of a participant's 2009 base salary for Vice President level employees and above and from 6.0% to 20.0% of a participant's 2009 base salary for other participants. The bonus target percentage and bonus target amount for each of our NEOs were as follows:

Named Executive Officer	Bonus Target Percentage	Bonus Target Amount
Daniel N. Swisher, Jr. ..... *CEO and President*	40.0%	$162,000
Eric H. Bjerkholt ..... *Senior Vice President, Corporate Development and Finance, Chief Financial Officer and Corporate Secretary*	30.0	102,000
Steven B. Ketchum, Ph.D. ..... *Senior Vice President, Research and Development*	30.0	108,000

In July 2010, the Compensation Committee approved the payment of bonuses to certain of our employees, including our NEOs, pursuant to our 2009 Bonus Program. The bonus payment amounts approved by the Compensation Committee were based on its determination of the degree to which the corporate and individual objectives were achieved and that we had met the Cash Bonus Threshold.

A portion of the bonuses awarded to our NEOs consisted of fully vested shares of our common stock granted under our 2005 Plan in order to minimize the associated cash expense of the payouts. The number of shares of our common stock awarded to each of our NEOs under the 2005 Plan were determined based on the last closing price of our common stock as quoted on the NASDAQ Capital Market on July 30, 2010, the date the bonus payments were made, rounded down to the nearest whole share. The portions of the bonus payment amounts paid in cash and shares of our common stock are reflected in the "Non-Equity Incentive Plan Compensation" column for the year ended December 31, 2010 of the *Summary Compensation Table*.

2010 Bonus Program

In September 2010, our Board approved our 2010 Bonus Program, which provided our executive officers and other eligible employees the opportunity to earn cash bonuses based on the level of achievement from June 30, 2010 through December 31, 2010 by us of certain corporate objectives and by each participant of certain individual performance objectives. A participant must have remained an employee through the payment date under the 2010 Bonus Program to have earned a cash bonus.

The Board approved the corporate objectives and assigned a weighting to each objective. The Compensation Committee set the individual objectives of our CEO, as well as the individual objectives of the

remaining executive officers based on the recommendations of the CEO. The individual objectives of non-executive participants were set by each participant's immediate supervisor.

Each eligible participant in the 2010 Bonus Program was eligible to receive a cash bonus in an amount up to a specified percentage of such participant's annual base salary earned in 2010, or the 2010 Bonus Targets. Under the 2010 Bonus Program, the 2010 Bonus Targets ranged from 25.0% to 50.0% of a participant's 2010 base salary for Vice President level employees and above. The bonus target percentage for each of our NEOs was as follows:

Named Executive Officer	Bonus Target Percentage	Bonus Target Amount
Daniel N. Swisher, Jr. ..... *CEO and President*	50.0%	$202,500
Eric H. Bjerkholt ..... *Senior Vice President, Corporate Development and Finance, Chief Financial Officer and Corporate Secretary*	37.5	127,500
Steven B. Ketchum, Ph.D. ..... *Senior Vice President, Research and Development*	37.5	135,000

In February 2011, the Compensation Committee approved the payment of bonuses to certain of our employees, including our NEOs, pursuant to our 2010 Bonus Program. The bonus payment amounts approved by the Compensation Committee were based on its determination of the degree to which such corporate and individual objectives were achieved.

A portion of the bonuses awarded to our NEOs consisted of fully vested shares of our common stock granted under our 2005 Plan in order to minimize the associated cash expense of the payouts. The number of shares of our common stock awarded to each of our NEOs under the 2005 Plan were determined based on the closing price of our common stock as quoted on the NASDAQ Capital Market on February 28, 2011, rounded down to the nearest whole share. The portions of the bonus payment amounts paid in cash and shares of our common stock are reflected in the "Non-Equity Incentive Plan Compensation" column for the year ended December 31, 2010 of the *Summary Compensation Table.*

Stock Option Grants in 2010

See "*Outstanding Equity Awards Table at December 31, 2010*" below for the terms of the stock options held by our NEOs at December 31, 2010. No stock options were granted to our NEOs in 2010.

Outstanding Equity Awards Table at December 31, 2010

The following information sets forth the outstanding stock options held by our NEOs as of December 31, 2010. As of December 31, 2010, none of our NEOs held unearned equity incentive awards or unvested stock awards.

	Option Awards			
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date
Daniel N. Swisher, Jr.	21,569	—	15.30	02/06/12
	7,843	—	15.30	04/16/13
	11,765	—	15.30	01/21/14
	3,529	—	15.30	06/24/14
	39,167	—	31.50	11/29/15
	20,000	—	29.10	10/13/16
	20,990(1)	4,844(1)	15.54	09/13/17
	41,668(2)	83,332(2)	2.94	08/31/19
Eric H. Bjerkholt	9,804	—	15.30	01/21/14
	2,941	—	15.30	06/09/14
	20,000	—	31.50	11/29/15
	10,000	—	29.10	10/13/16
	12,188(1)	2,812(1)	15.54	09/13/17
	7,032(3)	4,218(3)	8.64	06/30/18
	25,002(2)	49,998(2)	2.94	08/31/19
Steven B. Ketchum, Ph.D.	1,042(4)	625(4)	8.64	06/30/18
	14,583(5)	8,750(5)	8.64	06/30/18
	25,000(2)	50,000(2)	2.94	08/31/19

(1) This stock option was granted on September 13, 2007 pursuant to our 2005 Plan and vests monthly during the 48-month period measured from the grant date, subject to the holder's continued service with Sunesis.

(2) This stock option was granted on August 31, 2009 pursuant to our 2005 Plan and vests monthly during the 48-month period measured from the grant date, subject to the holder's continued service with Sunesis.

(3) This stock option was granted on June 30, 2008 pursuant to our 2005 Plan and vests monthly during the 48-month period measured from the grant date, subject to the holder's continued service with Sunesis.

(4) This stock option was granted on June 30, 2008 pursuant to our 2005 Plan and vested as to 1/4th of the shares on June 30, 2009, with the remaining shares vesting monthly over the following 36 months, subject to the holder's continued service with Sunesis.

(5) This stock option was granted on June 30, 2008 pursuant to our 2006 Plan and vested as to 1/4th of the shares on June 30, 2009, with the remaining shares vesting monthly over the following 36 months, subject to the holder's continued service with Sunesis.

Post-Termination Compensation

Executive Severance Benefits Agreements

We entered into executive severance benefits agreements with each of our NEOs to provide certain benefits upon a termination of employment.

The Compensation Committee believes such agreements help us attract and retain employees in a marketplace where such protections are commonly offered by our peer companies. We also believe that severance protections offered upon terminations arising in connection with a change of control allow our executives to assess a potential change of control objectively, without regard to the potential impact of the transaction on their own job security. At the time we originally entered into the executive severance benefits agreements with each of the NEOs, the Compensation Committee determined that the terms of such executive severance benefits agreements reflected industry standard severance payments, benefits and equity acceleration.

Mr. Swisher. Under the executive severance benefits agreement with Mr. Swisher, if Mr. Swisher is terminated without cause or he is constructively terminated, he is entitled to receive a payment equal to 12 months salary and continued health benefits for a maximum period of the first 12 months following termination (which may be terminated earlier upon his coverage by a new employer), subject to the execution of a general release in favor of Sunesis. In the event that Mr. Swisher is terminated by an acquirer within six months after a change of control transaction, the above-described severance benefits payable in the event Mr. Swisher is terminated without cause or constructively terminated would be reduced on a dollar-for-dollar basis by the amount paid or payable to Mr. Swisher pursuant to the Change of Control Payment Plan, as detailed in the "Change of Control Payment Plan" section below. Under Mr. Swisher's executive severance benefits agreement, he will also be eligible for certain option acceleration benefits, as described in more detail below.

Mr. Bjerkholt and Dr. Ketchum. Under the respective executive severance benefits agreements with Mr. Bjerkholt and Dr. Ketchum, if such executive is terminated without cause or is constructively terminated, each is entitled to receive a payment equal to nine months salary and continued health benefits for a maximum period of the first nine months following termination (which may be terminated earlier upon his coverage by a new employer), subject to the execution of a general release in favor of Sunesis. In the event that Mr. Bjerkholt or Dr. Ketchum, as the case may be, is terminated by an acquirer within six months after a change of control transaction, the above-described severance benefits payable in the event the executive is terminated without cause or constructively terminated would be reduced on a dollar-for-dollar basis by the amount paid or payable to the executive pursuant to the Change of Control Payment Plan. Under Mr. Bjerkholt's and Dr. Ketchum's respective executive severance benefits agreements, they will also be eligible for certain option acceleration benefits, as described in more detail below.

Under the executive severance benefits agreements, with Messrs. Swisher and Bjerkholt and Dr. Ketchum, in connection with a change of control of Sunesis, the vesting of 50.0% of each such executive officer's outstanding unvested option awards is automatically accelerated immediately prior to the effective date of such change of control. In the event of a termination without cause or a constructive termination of any of these executives officers (i) within 12 months following a change of control, 100% of such executive officer's outstanding unvested awards would automatically accelerate on the date of termination, or (ii) if prior to or more than 12 months following a change of control, the outstanding awards that would have vested over the 12 month period following the date of termination would automatically accelerate for such executive officer.

In general, a "change of control" under these executive severance benefits agreements, as amended, includes an acquisition transaction in which a person or entity (with certain exceptions described in the agreements) becomes the direct or indirect beneficial owner of more than 50.0% of our voting stock, as well as the consummation of certain types of corporate transactions, such as a merger, consolidation, reorganization, business combination or sale of all or substantially all of our assets, pursuant to which our stockholders own,

directly or indirectly, less than 50.0% of Sunesis or our successor, or if our stockholders approve a liquidation or dissolution of Sunesis. However, a cash financing transaction will not constitute a change of control transaction pursuant to the terms of the executive severance benefits agreements.

Each of the executive severance benefits agreements described above provides that, in the event that any benefits provided in connection with a change of control (or a related termination of employment) would be subject to the 20.0% excise tax imposed by Section 4999 of the Code, the executive officer will receive the greater, on an after-tax basis (taking account of all federal, state and local taxes and excise taxes), of such benefits or such lesser amount of benefits as would result in no portion of the benefits being subject to the excise tax. An executive officer's receipt of any severance benefits is subject to his execution of a release in favor of Sunesis. Any benefits under the executive severance benefits agreement would terminate immediately if the executive officer, at any time, violates any proprietary information or confidentiality obligation to us.

Retirement Savings

We encourage our executives and employees generally to plan for retirement compensation through voluntary participation in our 401(k) Plan. All of our employees, including our executives, may participate in our 401(k) Plan by making pre-tax contributions from wages of up to 60.0% of their annual cash compensation, up to the current Internal Revenue Service limits. All of our executives can participate in the 401(k) Plan on the same terms as our employees. We believe this program is comparable with programs offered by our peer companies and assists us in attracting and retaining our executives.

During the years ended December 31, 2009 and December 31, 2010, Messrs. Swisher and Bjerkholt and Dr. Ketchum elected to defer a portion of their compensation under the 401(k) plan and, as a result, received corresponding matching contributions from us.

Medical Benefits

On April 3, 2009, Dr. Young retired as our Executive Chairman. In connection with his resignation, we agreed to cover Dr. Young's medical benefits for a period of 12 months; however, Dr. Young is not otherwise entitled to any severance in connection with his resignation pursuant to the terms of his Second Amended and Restated Executive Severance Benefits Agreement with us, dated December 23, 2008.

Change of Control Benefits

Change of Control Payment Plan

On April 3, 2009, we adopted a Change of Control Payment Plan, or the Plan, which was amended on September 16, 2010. Under the Plan, 10.5% to 12.0% of the transaction value, or the Plan Pool, of a change of control transaction of Sunesis would be allocated to our eligible employees, including our NEOs remaining employed by Sunesis, pursuant to the terms of such Plan. The aggregate proceeds available for distribution to eligible employees under the Plan are as follows:

Transaction Value	Aggregate Plan Pool (%)
<$30 million	10.5%
>$30 million but less than $45 million	11.0
≥$45 million but less than $60 million	11.5
≥$60 million	12.0

In order for an employee to be eligible to participate in the Plan, the individual must be a full-time regular U.S. employee and designated in writing by our Board, subject to certain limitations. Each participant shall be allocated a percentage of the Plan Pool. The percentage allocations of the Plan Pool for our executive officers are as follows:

Title of Executive Officer	Pro Rata Share (%)
Chairman of the Board of Directors	3.0%
CEO	20.0
Senior Vice Presidents	12.5 each, 25.0 in the aggregate

Our other employees are also eligible to participate in the Plan. If the number of employees at a level of Vice President or higher participating in the Plan changes after April 3, 2009, the Plan Pool allocations shown above shall be reallocated by the Compensation Committee on a pro rata basis without increasing or decreasing the aggregate Plan Pool. If there are significant decreases in the number of eligible employees below the level of Vice President, the Compensation Committee, in its sole discretion but considering the recommendation of our CEO, may reallocate a portion of the Plan Pool to other allocation categories (including those at or above the level of Vice President) without increasing or decreasing the aggregate Plan Pool.

If a change of control occurs, a participant in the Plan shall receive, in exchange for a general release of claims against us, a payment under the Plan in the same consideration received by us or our stockholders in the transaction if the participant is still an eligible employee on the date that payments pursuant to the Plan are scheduled to be made, and any cash severance payments owed by us in the future to the participant on account of a termination by us without cause or a constructive termination by us within six months following the change of control transaction under any severance agreement shall be reduced on a dollar-for-dollar basis by any payments pursuant to the Plan. If the participant has been terminated by us without cause or constructively terminated by us at the time payments under the Plan are scheduled to be made, we shall still provide the participant with such participant's allocated portion of the Plan Pool, but any cash severance payments otherwise payable to the participant by us shall be reduced on a dollar-for-dollar basis by such allocated portion of the Plan Pool, which shall be paid in cash to the extent of the cash severance payments that have been so reduced. The application of the Plan to amounts that are paid from escrow or pursuant to earn-out or other contingencies shall be determined at a future date in the sole discretion of our Board, recognizing that it is the present intention of our Board to apply the Plan to such amounts in the same manner as it applies to amounts payable immediately upon the effective date of the change of control, subject, however, to the requirements for either compliance with or exemption from Section 409A of the Code.

In general, a "change of control" under the Plan includes an acquisition transaction in which a person or entity (with certain exceptions) becomes the direct or indirect beneficial owner of more than 50.0% of our voting stock, as well as the consummation of certain types of corporate transactions, such as a merger, consolidation, reorganization, business combination or sale of all or substantially all of our assets, pursuant to which our stockholders own, directly or indirectly, less than 50.0% of Sunesis or our successor, or if our stockholders approve a liquidation or dissolution of Sunesis. However, a cash financing transaction will not constitute a change of control transaction pursuant to the terms of the Plan.

The Plan shall remain in effect until June 30, 2011; provided, however, that our obligation to make payments pursuant to a change of control transaction that occurs on or prior to such termination shall be unaffected by such termination. We reserve the right to amend or terminate the Plan at any time, subject to the consent of any adversely affected participant.

Change of Control Equity Incentive Plan Protections

Our 1998 Plan and our 2001 Plan both provide that in the event of a proposed sale of all or substantially all of our assets or a merger of Sunesis with or into another corporation in which we are not the surviving

corporation, each outstanding award shall be assumed or an equivalent award substituted by such successor corporation, unless the successor corporation does not agree to assume the award, in which case, the award shall terminate upon the consummation of the merger or sale of assets.

Our 2005 Plan and 2006 Plan provide that upon any change of control of Sunesis, our Board (or any committee delegated authority by our Board) may, in its discretion, make adjustments it deems appropriate to reflect such change with respect to (i) the aggregate number and type of awards that may be issued under the applicable plan, (ii) the terms and conditions of any outstanding awards, and (iii) and the grant or exercise price of any outstanding awards. If outstanding awards are not assumed by the surviving or successor entity and such successor entity does not substitute substantially similar awards for those awards outstanding under the 2005 Plan and the 2006 Plan, such outstanding awards shall become fully exercisable and/or payable as applicable and all forfeiture restrictions on such outstanding awards shall lapse.

In addition, our 2005 Plan and 2006 Plan include change in control provisions, which may result in the accelerated vesting of outstanding awards. In the event of a change in control of our company, for example, if we are acquired by merger or asset sale, each outstanding award under the 2005 Plan and 2006 Plan will accelerate and immediately vest with respect to 50.0% of the unvested award, and if the remainder of the award is not to be assumed by the successor corporation, the full amount of the award will automatically accelerate and become immediately vested. Additionally, in the event the remainder of the award is assumed by the successor corporation, any remaining unvested shares would accelerate and immediately vest in the event the optionee is terminated without cause or resigns for good reason within 12 months following such change in control. Pursuant to amendments to the 2005 Plan and 2006 Plan approved by our Board in March 2009, a cash financing will not constitute a change of control. In order to make the treatment of outstanding options granted under the 1998 Plan and 2001 Plan for then-current employees identical to the treatment of options granted under the 2005 Plan and 2006 Plan, all options outstanding under the 1998 Plan and 2001 Plan were amended to reflect identical change in control provisions.

We believe that the terms of our equity incentive plans described above are consistent with industry practice.

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Principal Accountant Fees and Services

The following is a summary of the aggregate fees billed to us by Ernst & Young, our independent registered public accounting firm, for the years ended December 31, 2010 and 2009 for each of the following categories of professional services:

Fee Category	Year Ended December 31, 2010	2009
Audit fees(1)	$305,924	$309,729
Audit-related fees(2)	143,350	40,000
Tax fees	—	—
Other fees	—	—
Total fees	$449,274	$349,729

(1) Audit fees for 2010 and 2009 included the aggregate fees for professional services rendered for the audit of our financial statements, review of our interim financial statements, review of our registration statements on Forms S-3 and Form S-8, review of our internal controls over financial reporting, and the issuance of consents.

(2) Audit-related fees in 2010 were for the provision of comfort letters to Cantor Fitzgerald & Co. in relation to our controlled equity offering sales agreements with them, and in 2009, were for accounting consultations related to the Private Placement.

All of the fees described above were pre-approved by the Audit Committee.

Pre-approval Policies

The Audit Committee has adopted a policy relating to the approval of all audit and non-audit services that are to be performed by our independent registered public accounting firm. This policy generally provides that we will not engage our independent registered public accounting firm to render audit or non-audit services unless the service is specifically approved in advance by the Audit Committee or the engagement is entered into pursuant to pre-approval procedures established by the Audit Committee, including policies for delegating authority to a member of the Audit Committee. Any service that is approved pursuant to a delegation of authority to a member of the Audit Committee must be reported to the full Audit Committee at a subsequent meeting.

The Audit Committee has determined that the rendering of the services other than audit services by Ernst & Young as described above is compatible with maintaining their independence.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Certain Related Party Transactions

Other than as described below, there were no other related party transactions during 2009 or 2010 with our executive officers, directors and beneficial owners of five percent or more of our securities.

Executive Severance Benefits Agreements

We have entered into executive severance benefits agreements and related amendments with our executive officers. See "*Executive Compensation and Related Information*" above for further discussion of these arrangements.

Stock Option Grants

We have granted stock options to our executive officers and our non-employee directors. See "*Executive Compensation and Related Information*" and "*Information about the Board of Directors and Corporate Governance—Director Compensation*" above for further discussion of these awards.

Indemnification of Directors and Officers

We have entered into indemnity agreements with our executive officers and directors which provide, among other things, that we will indemnify such executive officer or director, under the circumstances and to the extent provided for therein, for expenses, damages, judgments, fines and settlements he or she may be required to pay in actions or proceedings which he or she is or may be made a party by reason of his or her position as a director, executive officer or other agent of Sunesis, and otherwise to the fullest extent permitted under Delaware law and our bylaws. We also intend to execute these agreements with our future executive officers and directors.

There is no pending litigation or proceeding naming any of our directors or executive officers as to which indemnification is being sought, nor are we aware of any pending or threatened litigation that may result in claims for indemnification by any director or executive officer.

Consulting Agreements

We have entered into consulting agreements with two of our directors, Drs. Pearce and Stump. See "*Information about the Board of Directors and Corporate Governance—Director Compensation*" above for further discussion of these agreements.

Purchases of Our Securities

On March 31, 2009, we entered into a securities purchase agreement with accredited investors, including certain members of management, providing for a private placement of our securities, or the Private Placement. The Private Placement contemplated the sale of up to $15.0 million of units, consisting of Series A preferred stock and warrants to purchase common stock in two closings, and a common stock closing of up to $28.5 million. $10.0 million in units were sold in the initial closing on April 3, 2009, $5.0 million in units were sold in the second closing on October 30, 2009 and $28.5 million in shares of our common stock were sold in the third and final closing on June 30, 2010. In conjunction with the third closing, each of the outstanding shares of Series A convertible preferred stock issued in the initial and second closings of the Private Placement was converted into 10 shares of our common stock. The participation in the Private Placement by some of our executive officers was approved by the Audit Committee. We believe the terms obtained or consideration that we received in connection with the Private Placement were comparable to terms available or the amounts that would be received by us in arm's-length transactions.

The table below reflects the following for the funds affiliated with certain of our directors and our executive officers: (i) the number of shares of common stock issued and sold in the third closing of the Private Placement held on June 30, 2010; (ii) the number of shares of common stock issued upon conversion of the outstanding shares of Series A convertible preferred stock held by each such investor upon the third closing of the Private Placement; (iii) the number of shares of common stock underlying warrants issued in the initial and second closings of the Private Placement; and (iv) the total amount invested in all three closings of the Private Placement by each named investor.

Investor	Executive Officer or Director Affiliation (if any)	Common Stock Issued in Third Closing	Common Stock Issued Upon Conversion of Series A Preferred Stock	Warrants	Total Amount Invested in All Closings ($)
Entities affiliated with Bay City Capital	Dayton Misfeldt	3,970,741(1)	1,665,830(2)	1,665,830(3)	$10,000,000
Growth Equity Opportunities Fund, LLC(4)	Helen S. Kim	3,970,741	1,665,831	1,665,831	$10,000,000
Entities affiliated with Alta Partners	Ed Hurwitz	1,985,369(5)	832,909(6)	832,909(7)	5,000,000
Swisher Revocable Trust	Daniel N. Swisher, Jr.	79,414	33,315	33,315	200,000
Bjerkholt / Hahn Family Trust	Eric H. Bjerkholt	39,707	16,656	16,656	100,000
Steven B. Ketchum, Ph.D.	Self	39,707	16,656	16,656	100,000

(1) Consists of (i) 3,896,489 shares of common stock purchased by Bay City Capital Fund V, L.P. and (ii) 74,252 shares of common stock purchased by Bay City Capital Fund V Co-Investment Fund, L.P. In connection with and immediately subsequent to the initial closing of the Private Placement, an affiliate of Bay City Capital was appointed to our Board. The director on our Board designated by Bay City Capital is Dayton Misfeldt, an investment partner of Bay City Capital. See "*Security Ownership of Certain Beneficial Owners and Management*" below for more information regarding the holdings of Mr. Misfeldt and these entities.

(2) Consists of (i) 1,634,681 shares of common stock held by Bay City Capital Fund V, L.P. and (ii) 31,149 shares of common stock held by Bay City Capital Fund V Co-Investment Fund, L.P.

(3) Consists of warrants to purchase (i) 1,634,681 shares of common stock purchased by Bay City Capital Fund V, L.P. and (ii) 31,149 shares of common stock purchased by Bay City Capital Fund V Co-Investment Fund, L.P.

(4) In connection with the Private Placement and following the initial closing, Helen S. Kim was appointed to our Board as a designee of Growth Equity Opportunities Fund, LLC, or GEO, on July 24, 2009. See "*Security Ownership of Certain Beneficial Owners and Management*" below for more information regarding the holdings of Ms. Kim and GEO.

(5) Consists of (i) 1,818,432 shares of common stock purchased by Alta BioPharma Partners III, L.P., (ii) 122,124 shares of common stock purchased by Alta BioPharma Partners III GmbH & Co. Beteiligungs KG, and (iii) 44,813 shares of common stock purchased by Alta Embarcadero BioPharma Partners III, LLC. In connection with and immediately subsequent to the initial closing of the Private Placement, an affiliate of Alta Partners was appointed to our Board. The director on our Board designated by Alta Partners is Edward Hurwitz, a director of Alta Partners. See "*Security Ownership of Certain Beneficial Owners and Management*" for more information regarding the holdings of Mr. Hurwitz and these entities.

(6) Consists of (i) 762,879 shares of common stock held by Alta BioPharma Partners III, L.P., (ii) 51,231 shares of common stock held by Alta BioPharma Partners III GmbH & Co. Beteiligungs KG, and (iii) 18,799 shares of common stock held by Alta Embarcadero BioPharma Partners III, LLC.

(7) Consists of warrants to purchase (i) 762,879 shares of common stock purchased by Alta BioPharma Partners III, L.P., (ii) 51,231 shares of common stock purchased by Alta BioPharma Partners III GmbH & Co. Beteiligungs KG, and (iii) 18,799 shares of common stock purchased by Alta Embarcadero BioPharma Partners III, LLC.

Investor Rights Agreement

On April 3, 2009, we entered into an Investor Rights Agreement, as amended, with the investors in connection with the Private Placement, pursuant to which we granted to the investors certain registration rights with respect to the securities issued and sold pursuant to the Private Placement, or the Investor Rights Agreement. Some of the rights granted under the Investor Rights Agreement expired upon conversion of the Series A Preferred Stock into common stock on June 30, 2010. The remaining rights include an agreement between the parties with respect to the size and composition of our Board. Specifically, following the initial closing of the Private Placement, the size of our Board was set at eight members, and certain investors had the right to designate, and we were required to nominate, three members to our Board. Alta BioPharma Partners III, L.P., or Alta, Bay City Capital LLC, or Bay City Capital, and GEO, together with their respective affiliates, each had the right to designate one such investor designee. As a result, our Board elected Messrs. Hurwitz and Misfeldt to our Board on April 3, 2009 as designees of Alta and Bay City Capital, respectively, and Ms. Kim to our Board on July 24, 2009 as designee of GEO. In connection with the second closing of the Private Placement on October 30, 2009, the size of our Board was increased to nine members, with one vacancy, pursuant to the Investor Rights Agreement. From May 1, 2010, certain investors are entitled to designate, and we will be required to nominate, five members to our Board. Specifically, each of Alta, Bay City Capital, GEO and ONC Partners, L.P., together with their respective affiliates, has the right to designate one designee, with the remaining designee designated by the investors holding the majority of Registrable Shares as specified in the Investor Rights Agreement.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth, as of March 15, 2011, information regarding beneficial ownership of our common stock by:

- each person, or group of affiliated persons, known by us to beneficially own more than five percent of our common stock;
- each of our NEOs;
- each director and nominee for director; and
- all of our executive officers and directors as a group.

Beneficial ownership is determined according to the rules of the SEC and generally means that a person has beneficial ownership of a security if he, she or it possesses sole or shared voting or investment power of that security, and includes options and warrants that are currently exercisable or exercisable within 60 days of March 15, 2011. Shares of common stock subject to stock options and warrants currently exercisable or exercisable within 60 days of March 15, 2011 are deemed to be outstanding for computing the percentage ownership of the person holding these options and warrants and the percentage ownership of any group of which the holder is a member, but are not deemed outstanding for computing the percentage of any other person. Except as indicated by footnote, and subject to community property laws where applicable, we believe the persons named in the table have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them.

This table lists applicable percentage ownership based on 46,027,474 shares of common stock outstanding as of March 15, 2011. Unless otherwise indicated, the address for each of the beneficial owners in the table below is c/o Sunesis Pharmaceuticals, Inc., 395 Oyster Point Boulevard, Suite 400, South San Francisco, California 94080.

	Beneficial Ownership(1)	
Name of Beneficial Owner	Shares of Common Stock Beneficially Owned (#)(2)	Percentage of Common Stock Beneficially Owned (%)
5% Stockholders:		
Entities affiliated with Alta Partners(3)	3,747,813	8.0
Entities affiliated with Bay City Capital(4)	7,303,917	15.3
Growth Equity Opportunities Fund, LLC(5)	7,302,404	15.3
Entities affiliated with Merlin Biomed(6)	3,082,198	6.7
ONC General Partnership Limited(7)	3,095,923	6.7
Named Executive Officers and Directors:		
James W. Young, Ph.D.(8)	115,041	*
Daniel N. Swisher, Jr.(9)	364,198	*
Eric H. Bjerkholt(10)	196,953	*
Steven B. Ketchum, Ph.D.(11)	134,113	*
Matthew K. Fust(12)	28,196	*
Edward Hurwitz(13)	3,756,008	8.0
Helen S. Kim(14)	15,695	*
Dayton Misfeldt(15)	7,312,112	15.3
Homer L. Pearce, Ph.D.(16)	26,529	*
David C. Stump, M.D.(17)	26,529	*
All executive officers and directors as a group (10 persons)	**11,975,374**	**24.3**

* Represents beneficial ownership of less than one percent (1.0%) of the outstanding shares of our capital stock.

(1) This table is based upon information provided to us by our executive officers and directors and upon information about principal stockholders known to us based on Schedules 13G and 13D filed with the SEC.

(2) Includes shares issuable pursuant to stock options and warrants exercisable within 60 days of March 15, 2011.

(3) Includes (i) 173,355 shares of common stock and 57,175 shares of common stock issuable upon exercise of warrants outstanding held by Alta BioPharma Partners III GmbH & Co. Beteiligungs KG, (ii) 2,581,312 shares of common stock and 851,378 shares of common stock issuable upon exercise of warrants outstanding held by Alta BioPharma Partners III, L.P., and (iii) 63,613 shares of common stock and 20,980 shares of common stock issuable upon exercise of warrants outstanding held by Alta Embarcadero BioPharma Partners III, LLC. Alta Partners III, Inc. provides investment advisory services to Alta BioPharma Partners III GmbH & Co. Beteiligungs KG, Alta BioPharma Partners III, L.P. and Alta Embarcadero BioPharma Partners III, LLC, which we refer to collectively as the Alta Funds. The directors of Alta BioPharma Management III, LLC (together, the "Principals"), which is the general partner of Alta BioPharma Partners III, L.P. the managing limited partner of Alta BioPharma Partners III GmbH & Co. Beteiligungs KG, and the managers of Alta Embarcadero BioPharma Partners III, LLC, exercise sole voting and investment power over the shares owned by the Alta Funds. The Principals include Farah Campsi, Edward Penhoet and Edward Hurwitz. These individuals may be deemed to share voting and investment power over the shares held by the Alta Funds. Each of these individuals disclaims beneficial ownership of such shares, except to the extent of his or her pecuniary interest therein. The address of Alta Partners III, Inc. and its affiliates is One Embarcadero Center, Suite 3700, San Francisco, California 94111.

(4) Includes (i) 1,515 shares of our common stock held by Bay City Capital LLC, a Delaware limited liability company, or BCC, (ii) 5,531,170 shares of common stock and 1,634,681 shares of common stock issuable upon exercise of warrants outstanding held by Bay City Capital Fund V, L.P., or Fund V, and (iii) 105,402 shares of common stock and 31,149 shares of common stock issuable upon exercise of warrants outstanding held by Bay City Capital Fund V Co-Investment Fund, L.P., or Co-Investment V. BCC is the manager of Bay City Capital Management V, LLC, a Delaware limited liability company, or Management V. Management V is the general partner of Fund V and Co-Investment V and has sole voting and dispositive power with respect to the securities held by Fund V and Co-Investment V. BCC is also an advisor to Fund V and Co-Investment V. Dayton Misfeldt is a partner of BCC. The address of the principal business and office of Bay City Capital and its affiliates is 750 Battery Street, Suite 400, San Francisco, California 94111.

(5) Includes 5,636,573 shares of common stock and 1,665,831 shares of common stock issuable upon the exercise of warrants outstanding owned by Growth Equity Opportunities Fund, LLC, or GEO. The sole member of GEO is New Enterprise Associates 12, Limited Partnership, or NEA 12. NEA Partners 12, Limited Partnership, or NEA Partners 12, is the sole general partner of NEA 12 and NEA 12 GP, LLC, or NEA 12 GP, is the sole general partner of NEA Partners 12. M. James Barrett, Peter J. Barris, Forest Baskett, Ryan D. Drant, Patrick J. Kerins, Krishna "Kittu" Kolluri, C. Richard Kramlich, Charles W. Newhall III, Mark W. Perry and Scott D. Sandell are the individual managers of NEA 12 GP. Each of the above named entities and persons, except GEO, disclaims beneficial ownership of the securities except to the extent of their pecuniary interest therein, if any. The address for GEO is 1954 Greenspring Drive, Suite 600, Timonium, Maryland 21093.

(6) Includes (i) 1,262,147 shares of common stock owned by Nexus Gemini, L.P., or Gemini, and (ii) 1,820,051 shares of common stock owned by Merlin Nexus III, L.P. ("Nexus III"). Merlin BioMed Private Equity Advisors, LLC, a Delaware limited liability company, or Merlin, is the investment adviser to Gemini and Nexus III. Dominique Semon is the controlling principal and chief investment officer of Merlin. Merlin and Mr. Semon share voting power and dispositive power over the shares held by Gemini and Nexus III. The principal address for Merlin and it affiliates is 424 West 33rd Street, Suite 520, New York, New York 10001.

(7) Includes 2,818,285 shares of common stock and 277,638 shares of common stock issuable upon the exercise of warrants outstanding owned by ONC General Partner Limited ("ONC"). The principal address for ONC is 26 New Street, St. Helier, Jersey, Channel Islands JE4 8PP.

(8) Includes 1,960 shares of our common stock held by family members of Dr. Young. Dr. Young disclaims beneficial ownership of such shares, except to the extent of his pecuniary interest therein. Also includes options held by Dr. Young to purchase 72,285 shares of common stock that are exercisable within 60 days of March 15, 2011.

(9) Includes options held by Mr. Swisher to purchase 179,638 shares of our common stock that are exercisable within 60 days of March 15, 2011. Also includes 112,729 shares of common stock and 33,315 shares of common stock issuable upon the exercise of warrants outstanding that are held in the Swisher Revocable Trust for which Mr. Swisher is the trustee.

(10) Includes options held by Mr. Bjerkholt to purchase 95,715 shares of our common stock exercisable within 60 days of March 15, 2011. Also includes 73,029 shares of common stock and 16,656 shares of common stock issuable upon the exercise of warrants outstanding that are held in the Bjerkholt/Hahn Family Trust for which Mr. Bjerkholt is the trustee.

(11) Includes options held by Dr. Ketchum to purchase 48,957 shares of our common stock exercisable within 60 days of March 15, 2011. Also includes 16,656 shares of common stock issuable upon the exercise of warrants outstanding.

(12) Consists of options held by Mr. Fust to purchase 28,196 shares of our common stock exercisable within 60 days of March 15, 2011.

(13) Includes the shares of common stock and shares of common stock issuable upon the exercise of warrants outstanding detailed in Note (3) above held by the Alta Funds. Mr. Hurwitz is a principal of Alta Partners III, Inc., one of the managing directors of Alta BioPharma Management III, LLC, and a manager of Alta Embarcadero BioPharma Partners III, LLC. He may be deemed to share dispositive and voting power over the shares held by the Alta Funds. Mr. Hurwitz disclaims beneficial ownership of such shares except to the extent of his pecuniary interest therein. Also includes options held by Mr. Hurwitz to purchase 8,195 shares of our common stock exercisable within 60 days of March 15, 2011. The address of Mr. Hurwitz is c/o Alta Partners III, Inc., One Embarcadero Center, 37th Floor, San Francisco, California 94111.

(14) Consists of options held by Ms. Kim to purchase 15,695 shares of our common stock exercisable within 60 days of March 15, 2011.

(15) Includes the shares of our common stock and shares of common stock issuable upon the exercise of warrants outstanding detailed in Note (4) above held by the entities affiliated with BCC. Mr. Misfeldt is a partner of BCC. BCC is the manager of Management V. Management V, the general partner of Fund V and Co-Investment V, has sole voting and dispositive power with respect to the securities held by Fund V and Co-Investment V. BCC, as the manager of Management V, is also an advisor to Fund V and

Co-Investment V. Also includes options held by Mr. Misfeldt to purchase 8,195 shares of our common stock exercisable within 60 days of March 15, 2011. The address for Mr. Misfeldt is c/o Bay City Capital, 750 Battery Street, Suite 400, San Francisco, California 94111.

(16) Includes options held by Dr. Pearce to purchase 26,529 shares of our common stock exercisable within 60 days of March 15, 2011.

(17) Includes options held by Dr. Stump to purchase 26,529 shares of our common stock exercisable within 60 days of March 15, 2011.

OTHER INFORMATION

Stockholder Proposals for Inclusion in our 2012 Proxy Statement

Our stockholders may submit proposals on matters appropriate for stockholder action at meetings of our stockholders in accordance with Rule 14a-8 promulgated under the Exchange Act. For such proposals to be included in our proxy materials relating to the 2012 annual meeting of stockholders, all applicable requirements of Rule 14a-8 must be satisfied and such proposals must be received by us no later than December 23, 2011. However, if our 2012 annual meeting of stockholders is not held between May 4, 2012 and July 3, 2012, then the deadline will be a reasonable time prior to the time we begin to print and mail our proxy materials. Such proposals should be submitted to our Corporate Secretary at Sunesis Pharmaceuticals, Inc., 395 Oyster Point Boulevard, Suite 400, South San Francisco, California 94080.

Our bylaws establish an advance notice procedure with regard to certain matters, including stockholder proposals, not included in our proxy statement, to be brought before an annual meeting of stockholders. In general, notice must be received in writing by our Corporate Secretary at Sunesis Pharmaceuticals, Inc., 395 Oyster Point Boulevard, Suite 400, South San Francisco, California 94080 not less than 120 days before the one year anniversary of the date on which we first mailed our proxy statement to stockholders in connection with the previous year's annual meeting of stockholders and must contain specified information concerning the matters to be brought before such meeting and concerning the stockholder proposing such matters. Therefore, to be presented at our 2012 annual meeting, such a proposal must be received by us on or before December 23, 2012. If the date of the annual meeting is before May 4, 2012 or after July 3, 2012, our Corporate Secretary must receive such notice no later than the close of business on the later of 120 calendar days in advance of such annual meeting and 10 calendar days following the date on which public announcement of the date of such meeting is first made. We also advise you to review our bylaws, which contain additional requirements about advance notice of stockholder proposals and director nominations. The chairman of the 2012 annual meeting of stockholders may determine, if the facts warrant, that a matter has not been properly brought before the meeting and, therefore, may not be considered at the meeting. In addition, if you do not also comply with the requirements of Regulation 14A under the Exchange Act, our management will have discretionary authority to vote all shares for which it has proxies in opposition to any such stockholder proposal or director nomination.

Householding of Proxy Materials

The SEC has adopted rules that permit companies and intermediaries (such as brokers) to satisfy the delivery requirements for proxy statements and annual reports with respect to two or more stockholders sharing the same address by delivering a single proxy statement addressed to those stockholders. This process, which is commonly referred to as "householding," potentially means extra convenience for stockholders and cost savings for companies.

This year, a number of brokers with account holders who are our stockholders will be "householding" our proxy materials. A single proxy statement may be delivered to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once you have received notice from your broker that it will be "householding" communications to your address, "householding" will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in "householding" and would prefer to receive a separate proxy statement and annual report in the future, you may write or call either our (i) Investor Relations Department at Sunesis Pharmaceuticals, Inc., 395 Oyster Point Boulevard, Suite 400, South San Francisco, California 94080, Attention: Eric H. Bjerkholt, Senior Vice President, Corporate Development and Finance, Chief Financial Officer and Corporate Secretary, telephone: (650) 266-3500, or (ii) the transfer agent for our common stock, American Stock Transfer & Trust Company, 59 Maiden Lane, New York, New York 10007, telephone: (877) 777-0800. You will be removed from the householding program within 30 days of receipt of the revocation of your consent. If you revoke your consent, we will promptly deliver to you a separate copy of the proxy materials. Stockholders who currently receive multiple copies of the proxy materials at their addresses and would like to request "householding" of their communications should contact their brokers.

OTHER MATTERS

Other Matters at the Annual Meeting

The Board knows of no other matters to be submitted at the Annual Meeting. If any other matters properly come before the Annual Meeting, it is the intention of the persons named in the enclosed form of proxy to vote the shares they represent as the Board may recommend.

By Order of the Board of Directors,

Eric H. Bjerkholt
Senior Vice President, Corporate Development and Finance, Chief Financial Officer and Corporate Secretary

April 21, 2011

A COPY OF OUR ANNUAL REPORT ON FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2010, AS FILED WITH THE SEC, INCLUDING COPIES OF THE EXHIBITS TO OUR ANNUAL REPORT ON FORM 10-K IF SPECIFICALLY REQUESTED, IS AVAILABLE WITHOUT CHARGE, UPON WRITTEN REQUEST OF ANY STOCKHOLDER. PLEASE ADDRESS ALL SUCH REQUESTS TO OUR INVESTOR RELATIONS DEPARTMENT AT SUNESIS PHARMACEUTICALS, INC., 395 OYSTER POINT BOULEVARD, SUITE 400, SOUTH SAN FRANCISCO, CALIFORNIA 94080, ATTENTION: ERIC H. BJERKHOLT, SR. VICE PRESIDENT, CORPORATE DEVELOPMENT AND FINANCE, CHIEF FINANCIAL OFFICER AND CORPORATE SECRETARY BY TELEPHONE TO: (650) 266-3717, OR BY E-MAIL TO: BJERKHOLT@SUNESIS.COM.

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SUNESIS PHARMACEUTICALS, INC.

2011 EQUITY INCENTIVE PLAN

ADOPTED BY THE BOARD OF DIRECTORS: MARCH 15, 2011
APPROVED BY THE STOCKHOLDERS: [ ], 2011
TERMINATION DATE: MARCH 15, 2021

1. GENERAL.

(a) Successor to and Continuation of Prior Plan. The Plan is intended as the successor to and continuation of the Company's 1998 Stock Plan (the "***1998 Plan***"), the Company's 2001 Stock Plan (the "***2001 Plan***"), the Company's 2005 Equity Incentive Award Plan (the "***2005 Plan***"), and the Company's 2006 Employment Commencement Incentive Plan (the "***2006 Plan***," together with the 1998 Plan, the 2001 Plan, and the 2005 Plan, the "***Prior Plans***"). Following the Effective Date, no additional stock awards shall be granted under the Prior Plans. Any shares remaining available as of the Effective Date that could then be made subject to new grants under the Prior Plans (the "***Prior Plans' Available Reserve***") shall become available for issuance pursuant to Stock Awards granted hereunder. From and after the Effective Date, all outstanding stock awards granted under the Prior Plans shall remain subject to the terms of the Prior Plan; *provided, however*, that any shares underlying stock awards granted under the Prior Plans that are outstanding as of the Effective Date but that expire or terminate for any reason prior to exercise or settlement or are forfeited because of the failure to meet a contingency or condition required to vest such shares from and after the Effective Date (the "***Returning Shares***") shall become available for issuance pursuant to Awards granted hereunder. All Awards granted on or after the Effective Date of this Plan shall be subject to the terms of this Plan.

(b) Eligible Award Recipients. The persons eligible to receive Awards are Employees, Directors and Consultants.

(c) Available Awards. The Plan provides for the grant of the following Awards: (i) Incentive Stock Options, (ii) Nonstatutory Stock Options, (iii) Stock Appreciation Rights (iv) Restricted Stock Awards, (v) Restricted Stock Unit Awards, (vi) Performance Stock Awards, (vii) Performance Cash Awards, and (viii) Other Stock Awards.

(d) Purpose. The Company, by means of the Plan, seeks to secure and retain the services of the group of persons eligible to receive Awards as set forth in Section 1(b), to provide incentives for such persons to exert maximum efforts for the success of the Company and any Affiliate and to provide a means by which such eligible recipients may be given an opportunity to benefit from increases in value of the Common Stock through the granting of Awards.

2. ADMINISTRATION.

(a) Administration by Board. The Board shall administer the Plan unless and until the Board delegates administration of the Plan to a Committee or Committees, as provided in Section 2(c).

(b) Powers of Board. The Board shall have the power, subject to, and within the limitations of, the express provisions of the Plan:

(i) To determine from time to time: (A) which of the persons eligible under the Plan shall be granted Awards; (B) when and how each Award shall be granted; (C) what type or combination of types of Award shall be granted; (D) the provisions of each Award granted (which need not be identical), including the time or times when a person shall be permitted to receive cash or Common Stock pursuant to a Stock Award; (E) the number of shares of Common Stock with respect to which a Stock Award shall be granted to each such person; and (F) the Fair Market Value applicable to a Stock Award.

(ii) To construe and interpret the Plan and Awards granted under it, and to establish, amend and revoke rules and regulations for its administration. The Board, in the exercise of this power, may correct any defect, omission or inconsistency in the Plan or in any Stock Award Agreement or in the written terms of a Performance Cash Award, in a manner and to the extent it shall deem necessary or expedient to make the Plan or Award fully effective.

(iii) To settle all controversies regarding the Plan and Awards granted under it.

(iv) To accelerate the time at which an Award may first be exercised or the time during which an Award or any part thereof will vest in accordance with the Plan, notwithstanding the provisions in the Award stating the time at which it may first be exercised or the time during which it will vest.

(v) To suspend or terminate the Plan at any time. Suspension or termination of the Plan shall not impair rights and obligations under any Award granted while the Plan is in effect except with the written consent of the affected Participant.

(vi) To amend the Plan in any respect the Board deems necessary or advisable, including, without limitation, by adopting amendments relating to Incentive Stock Options and certain nonqualified deferred compensation under Section 409A of the Code and/or to bring the Plan or Awards granted under the Plan into compliance therewith, subject to the limitations, if any, of applicable law. However, except as provided in Section 9(a) relating to Capitalization Adjustments, to the extent required by applicable law or listing requirements, stockholder approval shall be required for any amendment of the Plan that either (A) materially increases the number of shares of Common Stock available for issuance under the Plan, (B) materially expands the class of individuals eligible to receive Awards under the Plan, (C) materially increases the benefits accruing to Participants under the Plan or materially reduces the price at which shares of Common Stock may be issued or purchased under the Plan, (D) materially extends the term of the Plan, or (E) expands the types of Awards available for issuance under the Plan. Except as provided above, rights under any Award granted before amendment of the Plan shall not be impaired by any amendment of the Plan unless (1) the Company requests the consent of the affected Participant, and (2) such Participant consents in writing.

(vii) To submit any amendment to the Plan for stockholder approval, including, but not limited to, amendments to the Plan intended to satisfy the requirements of (A) Section 162(m) of the Code regarding the exclusion of performance-based compensation from the limit on corporate deductibility of compensation paid to Covered Employees, (B) Section 422 of the Code regarding "incentive stock options" or (C) Rule 16b-3.

(viii) To approve forms of Award Agreements for use under the Plan and to amend the terms of any one or more Awards, including, but not limited to, amendments to provide terms more favorable to the Participant than previously provided in the Award Agreement, subject to any specified limits in the Plan that are not subject to Board discretion; *provided however*, that except with respect to amendments that disqualify or impair the status of an Incentive Stock Option, a Participant's rights under any Award shall not be impaired by any such amendment unless (A) the Company requests the consent of the affected Participant, and (B) such Participant consents in writing. Notwithstanding the foregoing, subject to the limitations of applicable law, if any, the Board may amend the terms of any one or more Awards without the affected Participant's consent if necessary to maintain the qualified status of the Award as an Incentive Stock Option or to bring the Award into compliance with Section 409A of the Code.

(ix) Generally, to exercise such powers and to perform such acts as the Board deems necessary or expedient to promote the best interests of the Company and that are not in conflict with the provisions of the Plan or Awards.

(x) To adopt such procedures and sub-plans as are necessary or appropriate to permit participation in the Plan by Employees, Directors or Consultants who are foreign nationals or employed outside the United States.

(c) Delegation to Committee.

(i) General. The Board may delegate some or all of the administration of the Plan to a Committee or Committees. If administration of the Plan is delegated to a Committee, the Committee shall have, in connection with the administration of the Plan, the powers theretofore possessed by the Board that have been delegated to the Committee, including the power to delegate to a subcommittee of the Committee any of the administrative powers the Committee is authorized to exercise (and references in this Plan to the Board shall thereafter be to the Committee or subcommittee), subject, however, to such resolutions, not inconsistent with the provisions of the Plan, as may be adopted from time to time by the Board. The Board may retain the authority to concurrently administer the Plan with the Committee and may, at any time, revest in the Board some or all of the powers previously delegated.

(ii) Section 162(m) and Rule 16b-3 Compliance. The Committee may consist solely of two or more Outside Directors, in accordance with Section 162(m) of the Code, or solely of two or more Non-Employee Directors, in accordance with Rule 16b-3.

(d) Delegation to an Officer. The Board may delegate to one (1) or more Officers the authority to do one or both of the following (i) designate Employees who are providing Continuous Service to the Company or any of its Subsidiaries who are not Officers to be recipients of Options and Stock Appreciation Rights (and, to the extent permitted by applicable law, other Stock Awards) and the terms thereof, and (ii) determine the number of shares of Common Stock to be subject to such Stock Awards granted to such Employees; *provided, however*, that the Board resolutions regarding such delegation shall specify the total number of shares of Common Stock that may be subject to the Stock Awards granted by such Officer and that such Officer may not grant a Stock Award to himself or herself. Notwithstanding the foregoing, the Board may not delegate authority to an Officer to determine the Fair Market Value pursuant to Section 13(w)(iii) below.

(e) Effect of Board's Decision. All determinations, interpretations and constructions made by the Board in good faith shall not be subject to review by any person and shall be final, binding and conclusive on all persons.

(f) Cancellation and Re-Grant of Stock Awards. Except to the extent necessary under Section 9(a) relating to Capitalization Adjustments, neither the Board nor any Committee shall have the authority to: (i) reduce the exercise price of any outstanding Options or Stock Appreciation Rights under the Plan, or (ii) cancel any outstanding Options or Stock Appreciation Rights that have an exercise price or strike price greater than the current Fair Market Value of the Common Stock in exchange for cash or other Stock Awards under the Plan, unless the stockholders of the Company have approved such an action within twelve (12) months prior to such an event.

3. SHARES SUBJECT TO THE PLAN.

(a) Share Reserve. Subject to Section 9(a) relating to Capitalization Adjustments, the aggregate number of shares of Common Stock that may be issued pursuant to Stock Awards from and after the Effective Date shall not exceed [ ] shares (the "***Share Reserve***"), which number is the sum of (i) the number of shares subject to the Prior Plans' Available Reserve, (ii) an additional 4,400,000 new shares, plus (iii) an additional number of shares in an amount not to exceed [ ] shares (which number consists of the Returning Shares, if any, as such shares become available from time to time). In addition, the number of shares of Common Stock available for issuance under the Plan shall automatically increase on January 1st of each year for a period of ten years commencing on January 1, 2012 and ending on (and including) January 1, 2021, in an amount equal to 4% of the total number of shares of Common Stock outstanding on December 31st of the preceding calendar year. Notwithstanding the foregoing, the Board may act prior to the first day of any calendar year, to provide that there

shall be no increase in the share reserve for such calendar year or that the increase in the share reserve for such calendar year shall be a lesser number of shares of Common Stock than would otherwise occur pursuant to the preceding sentence. For clarity, the limitation in this Section 3(a) is a limitation on the number of shares of Common Stock that may be issued pursuant to the Plan. Accordingly, this Section 3(a) does not limit the granting of Stock Awards except as provided in Section 7(a). Shares may be issued in connection with a merger or acquisition as permitted by NASDAQ Listing Rule 5635(c) or, if applicable, NYSE Listed Company Manual Section 303A.08, AMEX Company Guide Section 711 or other applicable rule, and such issuance shall not reduce the number of shares available for issuance under the Plan. Further, if a Stock Award or any portion thereof (i) expires or otherwise terminates without all of the shares covered by such Stock Award having been issued or (ii) is settled in cash (*i.e.*, the Participant receives cash rather than stock), such expiration, termination or settlement shall not reduce (or otherwise offset) the number of shares of Common Stock that may be available for issuance under the Plan.

(b) Reversion of Shares to the Share Reserve. If any shares of Common Stock issued pursuant to a Stock Award are forfeited back to or repurchased by the Company because of the failure to meet a contingency or condition required to vest such shares in the Participant, then the shares that are forfeited or repurchased shall revert to and again become available for issuance under the Plan. Any shares reacquired by the Company pursuant to Section 8(g) or as consideration for the exercise of an Option shall again become available for issuance under the Plan.

(c) Incentive Stock Option Limit. Notwithstanding anything to the contrary in this Section 3 and, subject to the provisions of Section 9(a) relating to Capitalization Adjustments, the aggregate maximum number of shares of Common Stock that may be issued pursuant to the exercise of Incentive Stock Options shall be 35,000,000 shares of Common Stock.

(d) Section 162(m) Limitation on Annual Grants. Subject to the provisions of Section 9(a) relating to Capitalization Adjustments, at such time as the Company may be subject to the applicable provisions of Section 162(m) of the Code, a maximum of 3,000,000 shares of Common Stock subject to Options, Stock Appreciation Rights and Other Stock Awards whose value is determined by reference to an increase over an exercise or strike price of at least 100% of the Fair Market Value on the date the Stock Award is granted may be granted to any Participant during any calendar year. Notwithstanding the foregoing, if any additional Options, Stock Appreciation Rights or Other Stock Awards whose value is determined by reference to an increase over an exercise or strike price of at least 100% of the Fair Market Value on the date the Stock Award are granted to any Participant during any calendar year, compensation attributable to the exercise of such additional Stock Awards shall not satisfy the requirements to be considered "qualified performance-based compensation" under Section 162(m) of the Code unless such additional Stock Awards are approved by the Company's stockholders.

(e) Source of Shares. The stock issuable under the Plan shall be shares of authorized but unissued or reacquired Common Stock, including shares repurchased by the Company on the open market or otherwise.

4. ELIGIBILITY.

(a) Eligibility for Specific Stock Awards. Incentive Stock Options may be granted only to employees of the Company or a "parent corporation" or "subsidiary corporation" thereof (as such terms are defined in Sections 424(e) and 424(f) of the Code). Stock Awards other than Incentive Stock Options may be granted to Employees, Directors and Consultants; *provided, however*, Nonstatutory Stock Options and SARs may not be granted to Employees, Directors and Consultants who are providing Continuous Service only to any "parent" of the Company, as such term is defined in Rule 405, unless the stock underlying such Stock Awards is treated as "service recipient stock" under Section 409A of the Code because the Stock Awards are granted pursuant to a corporate transaction (such as a spin off transaction) or unless such Stock Awards comply with the distribution requirements of Section 409A of the Code.

(b) Ten Percent Stockholders. A Ten Percent Stockholder shall not be granted an Incentive Stock Option unless the exercise price of such Option is at least 110% of the Fair Market Value on the date of grant and the Option is not exercisable after the expiration of five years from the date of grant.

5. PROVISIONS RELATING TO OPTIONS AND STOCK APPRECIATION RIGHTS.

Each Option or SAR shall be in such form and shall contain such terms and conditions as the Board shall deem appropriate. All Options shall be separately designated Incentive Stock Options or Nonstatutory Stock Options at the time of grant, and, if certificates are issued, a separate certificate or certificates shall be issued for shares of Common Stock purchased on exercise of each type of Option. If an Option is not specifically designated as an Incentive Stock Option, then the Option shall be a Nonstatutory Stock Option. The provisions of separate Options or SARs need not be identical; *provided, however*, that each Option Agreement or Stock Appreciation Right Agreement shall conform to (through incorporation of provisions hereof by reference in the applicable Award Agreement or otherwise) the substance of each of the following provisions:

(a) Term. Subject to the provisions of Section 4(b) regarding Ten Percent Stockholders, no Option or SAR shall be exercisable after the expiration of ten years from the date of its grant or such shorter period specified in the Award Agreement.

(b) Exercise Price. Subject to the provisions of Section 4(b) regarding Ten Percent Stockholders, the exercise price (or strike price) of each Option or SAR shall be not less than 100% of the Fair Market Value of the Common Stock subject to the Option or SAR on the date the Option or SAR is granted. Notwithstanding the foregoing, an Option or SAR may be granted with an exercise price (or strike price) lower than 100% of the Fair Market Value of the Common Stock subject to the Option or SAR if such Option or SAR is granted pursuant to an assumption of or substitution for another option or stock appreciation right pursuant to a Corporate Transaction and in a manner consistent with the provisions of Sections 409A and, if applicable, Section 424(a) of the Code. Each SAR will be denominated in shares of Common Stock equivalents.

(c) Purchase Price for Options. The purchase price of Common Stock acquired pursuant to the exercise of an Option shall be paid, to the extent permitted by applicable law and as determined by the Board in its sole discretion, by any combination of the methods of payment set forth below. The Board shall have the authority to grant Options that do not permit all of the following methods of payment (or otherwise restrict the ability to use certain methods) and to grant Options that require the consent of the Company to utilize a particular method of payment. The permitted methods of payment are as follows:

(i) by cash, check, bank draft or money order payable to the Company;

(ii) pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board that, prior to the issuance of the stock subject to the Option, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds;

(iii) by delivery to the Company (either by actual delivery or attestation) of shares of Common Stock;

(iv) if the option is a Nonstatutory Stock Option, by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Common Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price; *provided, however*, that the Company shall accept a cash or other payment from the Participant to the extent of any remaining balance of the aggregate exercise price not satisfied by such reduction in the number of whole shares to be issued; *provided, further,* that shares of Common Stock will no longer be subject to an Option and will not be exercisable thereafter to the extent that (A) shares issuable upon

exercise are reduced to pay the exercise price pursuant to the "net exercise," (B) shares are delivered to the Participant as a result of such exercise, and (C) shares are withheld to satisfy tax withholding obligations; or

(v) in any other form of legal consideration that may be acceptable to the Board and specified in the applicable award agreement.

(d) Exercise and Payment of a SAR. To exercise any outstanding Stock Appreciation Right, the Participant must provide written notice of exercise to the Company in compliance with the provisions of the Stock Appreciation Right Agreement evidencing such Stock Appreciation Right. The appreciation distribution payable on the exercise of a Stock Appreciation Right will be not greater than an amount equal to the excess of (A) the aggregate Fair Market Value (on the date of the exercise of the Stock Appreciation Right) of a number of shares of Common Stock equal to the number of Common Stock equivalents in which the Participant is vested under such Stock Appreciation Right, and with respect to which the Participant is exercising the Stock Appreciation Right on such date, over (B) the strike price that will be determined by the Board at the time of grant of the Stock Appreciation Right. The appreciation distribution in respect to a Stock Appreciation Right may be paid in Common Stock, in cash, in any combination of the two or in any other form of consideration, as determined by the Board and contained in the Stock Appreciation Right Agreement evidencing such Stock Appreciation Right.

(e) Transferability of Options and SARs. The Board may, in its sole discretion, impose such limitations on the transferability of Options and SARs as the Board shall determine. In the absence of such a determination by the Board to the contrary, the following restrictions on the transferability of Options and SARs shall apply:

(i) Restrictions on Transfer. An Option or SAR shall not be transferable except by will or by the laws of descent and distribution and shall be exercisable during the lifetime of the Participant only by the Participant; *provided, however*, that the Board may, in its sole discretion, permit transfer of the Option or SAR in a manner that is not prohibited by applicable tax and securities laws upon the Participant's request. Except as explicitly provided herein, neither an Option nor a SAR may be transferred for consideration.

(ii) Domestic Relations Orders. Notwithstanding the foregoing, an Option or SAR may be transferred pursuant to a domestic relations order; *provided, however*, that if an Option is an Incentive Stock Option, such Option may be deemed to be a Nonstatutory Stock Option as a result of such transfer.

(iii) Beneficiary Designation. Notwithstanding the foregoing, the Participant may, by delivering written notice to the Company, in a form provided by or otherwise satisfactory to the Company and any broker designated by the Company to effect Option exercises, designate a third party who, in the event of the death of the Participant, shall thereafter be entitled to exercise the Option or SAR and receive the Common Stock or other consideration resulting from such exercise. In the absence of such a designation, the executor or administrator of the Participant's estate shall be entitled to exercise the Option or SAR and receive the Common Stock or other consideration resulting from such exercise.

(f) Vesting Generally. The total number of shares of Common Stock subject to an Option or SAR may vest and therefore become exercisable in periodic installments that may or may not be equal. The Option or SAR may be subject to such other terms and conditions on the time or times when it may or may not be exercised (which may be based on the satisfaction of Performance Goals or other criteria) as the Board may deem appropriate. The vesting provisions of individual Options or SARs may vary. The provisions of this Section 5(f) are subject to any Option or SAR provisions governing the minimum number of shares of Common Stock as to which an Option or SAR may be exercised.

(g) Termination of Continuous Service. Except as otherwise provided in the applicable Award Agreement or other agreement between the Participant and the Company, if a Participant's Continuous Service terminates (other than for Cause or upon the Participant's death or Disability), the Participant may exercise his or

her Option or SAR (to the extent that the Participant was entitled to exercise such Award as of the date of termination of Continuous Service) but only within such period of time ending on the earlier of (i) the date three months following the termination of the Participant's Continuous Service (or such longer or shorter period specified in the applicable Award Agreement), or (ii) the expiration of the term of the Option or SAR as set forth in the Award Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option or SAR within the time specified herein or in the Award Agreement (as applicable), the Option or SAR shall terminate.

(h) Extension of Termination Date. If the exercise of an Option or SAR following the termination of the Participant's Continuous Service (other than for Cause or upon the Participant's death or Disability) would be prohibited at any time solely because the issuance of shares of Common Stock would violate the registration requirements under the Securities Act, then the Option or SAR shall terminate on the earlier of (i) the expiration of a total period of three months (that need not be consecutive) after the termination of the Participant's Continuous Service during which the exercise of the Option or SAR would not be in violation of such registration requirements, or (ii) the expiration of the term of the Option or SAR as set forth in the applicable Award Agreement. In addition, unless otherwise provided in a Participant's Award Agreement, if the sale of any Common Stock received upon exercise of an Option or SAR following the termination of the Participant's Continuous Service (other than for Cause) would violate the Company's insider trading policy, then the Option or SAR shall terminate on the earlier of (i) the expiration of a period equal to the applicable post-termination exercise period after the termination of the Participant's Continuous Service during which the sale of the Common Stock received upon exercise of the Option or SAR would not be in violation of the Company's insider trading policy, or (ii) the expiration of the term of the Option or SAR as set forth in the applicable Award Agreement.

(i) Disability of Participant. Except as otherwise provided in the applicable Award Agreement or other agreement between the Participant and the Company, if a Participant's Continuous Service terminates as a result of the Participant's Disability, the Participant may exercise his or her Option or SAR (to the extent that the Participant was entitled to exercise such Option or SAR as of the date of termination of Continuous Service), but only within such period of time ending on the earlier of (i) the date 18 months following such termination of Continuous Service (or such longer or shorter period specified in the Award Agreement), or (ii) the expiration of the term of the Option or SAR as set forth in the Award Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option or SAR within the time specified herein or in the Award Agreement (as applicable), the Option or SAR (as applicable) shall terminate.

(j) Death of Participant. Except as otherwise provided in the applicable Award Agreement or other agreement between the Participant and the Company, if (i) a Participant's Continuous Service terminates as a result of the Participant's death, or (ii) the Participant dies within the period (if any) specified in the Award Agreement after the termination of the Participant's Continuous Service for a reason other than death, then the Option or SAR may be exercised (to the extent the Participant was entitled to exercise such Option or SAR as of the date of death) by the Participant's estate, by a person who acquired the right to exercise the Option or SAR by bequest or inheritance or by a person designated to exercise the Option or SAR upon the Participant's death, but only within the period ending on the earlier of (i) the date 18 months following the date of death (or such longer or shorter period specified in the Award Agreement), or (ii) the expiration of the term of such Option or SAR as set forth in the Award Agreement. If, after the Participant's death, the Option or SAR is not exercised within the time specified herein or in the Award Agreement (as applicable), the Option or SAR shall terminate.

(k) Termination for Cause. Except as explicitly provided otherwise in a Participant's Award Agreement, if a Participant's Continuous Service is terminated for Cause, the Option or SAR shall terminate upon the date on which the event giving rise to the termination occurred, and the Participant shall be prohibited from exercising his or her Option or SAR from and after the time of such termination of Continuous Service.

(l) Non-Exempt Employees. No Option or SAR granted to an Employee who is a non-exempt employee for purposes of the Fair Labor Standards Act of 1938, as amended, shall be first exercisable for any shares of

Common Stock until at least six months following the date of grant of the Option or SAR. Notwithstanding the foregoing, consistent with the provisions of the Worker Economic Opportunity Act, (i) in the event of the Participant's death or Disability, (ii) upon a Corporate Transaction in which such Option or SAR is not assumed, continued, or substituted, (iii) upon a Change in Control, or (iv) upon the Participant's retirement (as such term may be defined in the Participant's Award Agreement or in another applicable agreement or in accordance with the Company's then current employment policies and guidelines), any such vested Options and SARs may be exercised earlier than six months following the date of grant. The foregoing provision is intended to operate so that any income derived by a non-exempt employee in connection with the exercise or vesting of an Option or SAR will be exempt from his or her regular rate of pay.

6. PROVISIONS OF STOCK AWARDS OTHER THAN OPTIONS AND SARS.

(a) Restricted Stock Awards. Each Restricted Stock Award Agreement shall be in such form and shall contain such terms and conditions as the Board shall deem appropriate. To the extent consistent with the Company's Bylaws, at the Board's election, shares of Common Stock may be (x) held in book entry form subject to the Company's instructions until any restrictions relating to the Restricted Stock Award lapse; or (y) evidenced by a certificate, which certificate shall be held in such form and manner as determined by the Board. The terms and conditions of Restricted Stock Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Award Agreements need not be identical; *provided, however*, that each Restricted Stock Award Agreement shall conform to (through incorporation of the provisions hereof by reference in the agreement or otherwise) the substance of each of the following provisions:

(i) Consideration. A Restricted Stock Award may be awarded in consideration for (A) cash, check, bank draft or money order payable to the Company, (B) past services to the Company or an Affiliate, or (C) any other form of legal consideration (including future services) that may be acceptable to the Board, in its sole discretion, and permissible under applicable law.

(ii) Vesting. Shares of Common Stock awarded under the Restricted Stock Award Agreement may be subject to forfeiture to the Company in accordance with a vesting schedule to be determined by the Board.

(iii) Termination of Participant's Continuous Service. If a Participant's Continuous Service terminates, the Company may receive through a forfeiture condition or a repurchase right any or all of the shares of Common Stock held by the Participant that have not vested as of the date of termination of Continuous Service under the terms of the Restricted Stock Award Agreement.

(iv) Transferability. Rights to acquire shares of Common Stock under the Restricted Stock Award Agreement shall be transferable by the Participant only upon such terms and conditions as are set forth in the Restricted Stock Award Agreement, as the Board shall determine in its sole discretion, so long as Common Stock awarded under the Restricted Stock Award Agreement remains subject to the terms of the Restricted Stock Award Agreement.

(v) Dividends. A Restricted Stock Award Agreement may provide that any dividends paid on Restricted Stock will be subject to the same vesting and forfeiture restrictions as apply to the shares subject to the Restricted Stock Award to which they relate.

(b) Restricted Stock Unit Awards. Each Restricted Stock Unit Award Agreement shall be in such form and shall contain such terms and conditions as the Board shall deem appropriate. The terms and conditions of Restricted Stock Unit Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Unit Award Agreements need not be identical; *provided, however*, that each Restricted Stock Unit Award Agreement shall conform to (through incorporation of the provisions hereof by reference in the Agreement or otherwise) the substance of each of the following provisions:

(i) Consideration. At the time of grant of a Restricted Stock Unit Award, the Board will determine the consideration, if any, to be paid by the Participant upon delivery of each share of Common Stock subject to the Restricted Stock Unit Award. The consideration to be paid (if any) by the Participant for each share of Common Stock subject to a Restricted Stock Unit Award may be paid in any form of legal consideration that may be acceptable to the Board, in its sole discretion, and permissible under applicable law.

(ii) Vesting. At the time of the grant of a Restricted Stock Unit Award, the Board may impose such restrictions on or conditions to the vesting of the Restricted Stock Unit Award as it, in its sole discretion, deems appropriate.

(iii) Payment. A Restricted Stock Unit Award may be settled by the delivery of shares of Common Stock, their cash equivalent, any combination thereof or in any other form of consideration, as determined by the Board and contained in the Restricted Stock Unit Award Agreement.

(iv) Additional Restrictions. At the time of the grant of a Restricted Stock Unit Award, the Board, as it deems appropriate, may impose such restrictions or conditions that delay the delivery of the shares of Common Stock (or their cash equivalent) subject to a Restricted Stock Unit Award to a time after the vesting of such Restricted Stock Unit Award.

(v) Dividend Equivalents. Dividend equivalents may be credited in respect of shares of Common Stock covered by a Restricted Stock Unit Award, as determined by the Board and contained in the Restricted Stock Unit Award Agreement. At the sole discretion of the Board, such dividend equivalents may be converted into additional shares of Common Stock covered by the Restricted Stock Unit Award in such manner as determined by the Board. Any additional shares covered by the Restricted Stock Unit Award credited by reason of such dividend equivalents will be subject to all of the same terms and conditions of the underlying Restricted Stock Unit Award Agreement to which they relate.

(vi) Termination of Participant's Continuous Service. Except as otherwise provided in the applicable Restricted Stock Unit Award Agreement, such portion of the Restricted Stock Unit Award that has not vested will be forfeited upon the Participant's termination of Continuous Service.

(c) Performance Awards.

(i) Performance Stock Awards. A Performance Stock Award is a Stock Award that may vest or may be exercised contingent upon the attainment during a Performance Period of certain Performance Goals. A Performance Stock Award may, but need not, require the completion of a specified period of Continuous Service. The length of any Performance Period, the Performance Goals to be achieved during the Performance Period, and the measure of whether and to what degree such Performance Goals have been attained shall be conclusively determined by the Committee, in its sole discretion. The maximum number of shares covered by an Award that may be granted to any Participant in a calendar year attributable to Stock Awards described in this Section 6(c)(i) (whether the grant, vesting or exercise is contingent upon the attainment during a Performance Period of the Performance Goals) shall not exceed 2,000,000 shares of Common Stock. The Board may provide for or, subject to such terms and conditions

as the Board may specify, may permit a Participant to elect for, the payment of any Performance Stock Award to be deferred to a specified date or event. In addition, to the extent permitted by applicable law and the applicable Award Agreement, the Board may determine that cash may be used in payment of Performance Stock Awards.

(ii) Performance Cash Awards. A Performance Cash Award is a cash award that may be paid contingent upon the attainment during a Performance Period of certain Performance Goals. A Performance Cash Award may also require the completion of a specified period of Continuous Service. At the time of grant of a Performance Cash Award, the length of any Performance Period, the Performance Goals to be achieved during the Performance Period, and the measure of whether and to what degree such Performance Goals have been attained shall be conclusively determined by the Committee, in its sole discretion. In any calendar year, the Committee may not grant a Performance Cash Award that has a maximum value that may be paid to any Participant in excess of $2,000,000. The Board may provide for or, subject to such terms and conditions as the Board may specify, may permit a Participant to elect for, the payment of any Performance Cash Award to be deferred to a specified date or event. The Board may specify the form of payment of Performance Cash Awards, which may be cash or other property, or may provide for a Participant to have the option for his or her Performance Cash Award, or such portion thereof as the Board may specify, to be paid in whole or in part in cash or other property.

(iii) Section 162(m) Compliance. Unless otherwise permitted in compliance with the requirements of Section 162(m) of the Code with respect to an Award intended to qualify as "performance-based compensation" thereunder, the Committee shall establish the Performance Goals applicable to, and the formula for calculating the amount payable under, the Award no later than the earlier of (a) the date 90 days after the commencement of the applicable Performance Period, or (b) the date on which 25% of the Performance Period has elapsed, and in any event at a time when the achievement of the applicable Performance Goals remains substantially uncertain. Prior to the payment of any compensation under an Award intended to qualify as "performance-based compensation" under Section 162(m) of the Code, the Committee shall certify the extent to which any Performance Goals and any other material terms under such Award have been satisfied (other than in cases where such relate solely to the increase in the value of the Common Stock). Notwithstanding satisfaction of any completion of any Performance Goals, to the extent specified at the time of grant of an Award to "covered employees" within the meaning of Section 162(m) of the Code, the number of shares of Common Stock, Options, cash or other benefits granted, issued, retainable and/or vested under an Award on account of satisfaction of such Performance Goals may be reduced by the Committee on the basis of such further considerations as the Committee, in its sole discretion, shall determine.

(d) Other Stock Awards. Other forms of Stock Awards valued in whole or in part by reference to, or otherwise based on, Common Stock, including the appreciation in value thereof may be granted either alone or in addition to Stock Awards provided for under Section 5 and the preceding provisions of this Section 6. Subject to the provisions of the Plan, the Board shall have sole and complete authority to determine the persons to whom and the time or times at which such Other Stock Awards will be granted, the number of shares of Common Stock (or the cash equivalent thereof) to be granted pursuant to such Other Stock Awards and all other terms and conditions of such Other Stock Awards.

7. COVENANTS OF THE COMPANY.

(a) Availability of Shares. During the terms of the Stock Awards, the Company shall keep available at all times the number of shares of Common Stock reasonably required to satisfy such Stock Awards.

(b) Securities Law Compliance. The Company shall seek to obtain from each regulatory commission or agency having jurisdiction over the Plan such authority as may be required to grant Stock Awards and to issue and sell shares of Common Stock upon exercise of the Stock Awards; *provided, however*, that this undertaking

shall not require the Company to register under the Securities Act the Plan, any Stock Award or any Common Stock issued or issuable pursuant to any such Stock Award. If, after reasonable efforts, the Company is unable to obtain from any such regulatory commission or agency the authority that counsel for the Company deems necessary for the lawful issuance and sale of Common Stock under the Plan, the Company shall be relieved from any liability for failure to issue and sell Common Stock upon exercise of such Stock Awards unless and until such authority is obtained. A Participant shall not be eligible for the grant of a Stock Award or the subsequent issuance of Common Stock pursuant to the Stock Award if such grant or issuance would be in violation of any applicable securities law.

(c) No Obligation to Notify or Minimize Taxes. The Company shall have no duty or obligation to any Participant to advise such holder as to the time or manner of exercising such Stock Award. Furthermore, the Company shall have no duty or obligation to warn or otherwise advise such holder of a pending termination or expiration of a Stock Award or a possible period in which the Stock Award may not be exercised. The Company has no duty or obligation to minimize the tax consequences of a Stock Award to the holder of such Stock Award.

8. MISCELLANEOUS.

(a) Use of Proceeds from Sales of Common Stock. Proceeds from the sale of shares of Common Stock pursuant to Stock Awards shall constitute general funds of the Company.

(b) Corporate Action Constituting Grant of Stock Awards. Corporate action constituting a grant by the Company of a Stock Award to any Participant shall be deemed completed as of the date of such corporate action, unless otherwise determined by the Board, regardless of when the instrument, certificate, or letter evidencing the Stock Award is communicated to, or actually received or accepted by, the Participant.

(c) Stockholder Rights. No Participant shall be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Common Stock subject to such Stock Award unless and until (i) such Participant has satisfied all requirements for exercise of the Stock Award pursuant to its terms, if applicable, and (ii) the issuance of the Common Stock subject to such Stock Award has been entered into the books and records of the Company.

(d) No Employment or Other Service Rights. Nothing in the Plan, any Stock Award Agreement or any other instrument executed thereunder or in connection with any Award granted pursuant thereto shall confer upon any Participant any right to continue to serve the Company or an Affiliate in the capacity in effect at the time the Stock Award was granted or shall affect the right of the Company or an Affiliate to terminate (i) the employment of an Employee with or without notice and with or without cause, (ii) the service of a Consultant pursuant to the terms of such Consultant's agreement with the Company or an Affiliate, or (iii) the service of a Director pursuant to the Bylaws of the Company or an Affiliate, and any applicable provisions of the corporate law of the state in which the Company or the Affiliate is incorporated, as the case may be.

(e) Incentive Stock Option $100,000 Limitation. To the extent that the aggregate Fair Market Value (determined at the time of grant) of Common Stock with respect to which Incentive Stock Options are exercisable for the first time by any Optionholder during any calendar year (under all plans of the Company and any Affiliates) exceeds $100,000, the Options or portions thereof that exceed such limit (according to the order in which they were granted) shall be treated as Nonstatutory Stock Options, notwithstanding any contrary provision of the applicable Option Agreements.

(f) Investment Assurances. The Company may require a Participant, as a condition of exercising or acquiring Common Stock under any Stock Award, (i) to give written assurances satisfactory to the Company as to the Participant's knowledge and experience in financial and business matters and/or to employ a purchaser representative reasonably satisfactory to the Company who is knowledgeable and experienced in financial and business matters and that he or she is capable of evaluating, alone or together with the purchaser representative,

the merits and risks of exercising the Stock Award; and (ii) to give written assurances satisfactory to the Company stating that the Participant is acquiring Common Stock subject to the Stock Award for the Participant's own account and not with any present intention of selling or otherwise distributing the Common Stock. The foregoing requirements, and any assurances given pursuant to such requirements, shall be inoperative if (A) the issuance of the shares upon the exercise or acquisition of Common Stock under the Stock Award has been registered under a then currently effective registration statement under the Securities Act, or (B) as to any particular requirement, a determination is made by counsel for the Company that such requirement need not be met in the circumstances under the then applicable securities laws. The Company may, upon advice of counsel to the Company, place legends on stock certificates issued under the Plan as such counsel deems necessary or appropriate in order to comply with applicable securities laws, including, but not limited to, legends restricting the transfer of the Common Stock.

(g) Withholding Obligations. Unless prohibited by the terms of a Stock Award Agreement, the Company may, in its sole discretion, satisfy any federal, state or local tax withholding obligation relating to an Award by any of the following means or by a combination of such means: (i) causing the Participant to tender a cash payment; (ii) withholding shares of Common Stock from the shares of Common Stock issued or otherwise issuable to the Participant in connection with the Award; *provided, however*, that no shares of Common Stock are withheld with a value exceeding the minimum amount of tax required to be withheld by law (or such lesser amount as may be necessary to avoid classification of the Stock Award as a liability for financial accounting purposes); (iii) withholding cash from an Award settled in cash; (iv) withholding payment from any amounts otherwise payable to the Participant; or (v) by such other method as may be set forth in the Award Agreement.

(h) Electronic Delivery. Any reference herein to a "written" agreement or document shall include any agreement or document delivered electronically, filed publicly with at www.sec.gov (or any successor website thereto) or posted on the Company's intranet.

(i) Deferrals. To the extent permitted by applicable law, the Board, in its sole discretion, may determine that the delivery of Common Stock or the payment of cash, upon the exercise, vesting or settlement of all or a portion of any Award may be deferred and may establish programs and procedures for deferral elections to be made by Participants. Deferrals by Participants will be made in accordance with Section 409A of the Code. Consistent with Section 409A of the Code, the Board may provide for distributions while a Participant is still an employee or otherwise providing services to the Company. The Board is authorized to make deferrals of Awards and determine when, and in what annual percentages, Participants may receive payments, including lump sum payments, following the Participant's termination of Continuous Service, and implement such other terms and conditions consistent with the provisions of the Plan and in accordance with applicable law.

(j) Compliance with Section 409A. To the extent that the Board determines that any Award granted hereunder is subject to Section 409A of the Code, the Award Agreement evidencing such Award shall incorporate the terms and conditions necessary to avoid the consequences specified in Section 409A(a)(1) of the Code. To the extent applicable, the Plan and Award Agreements shall be interpreted in accordance with Section 409A of the Code. Notwithstanding anything to the contrary in this Plan (and unless the Award Agreement specifically provides otherwise), if the shares of Common Stock are publicly traded and a Participant holding an Award that constitutes "deferred compensation" under Section 409A of the Code is a "specified employee" for purposes of Section 409A of the Code, no distribution or payment of any amount shall be made upon a "separation from service" before a date that is six months following the date of such Participant's "separation from service" (as defined in Section 409A of the Code without regard to alternative definitions thereunder) or, if earlier, the date of the Participant's death, unless such distribution or payment can be made in a manner that complies with Section 409A of the Code.

9. Adjustments upon Changes in Common Stock; Other Corporate Events.

(a) Capitalization Adjustments. In the event of a Capitalization Adjustment, the Board shall appropriately and proportionately adjust: (i) the class(es) and maximum number of securities subject to the Plan pursuant to Section 3(a), (ii) the class(es) and maximum number of securities that may be issued pursuant to the exercise of Incentive Stock Options pursuant to Section 3(c), (iii) the class(es) and maximum number of securities that may be awarded to any person pursuant to Sections 3(d) and 6(c)(i), and (iv) the class(es) and number of securities and price per share of stock subject to outstanding Stock Awards. The Board shall make such adjustments, and its determination shall be final, binding and conclusive.

(b) Dissolution or Liquidation. Except as otherwise provided in the Stock Award Agreement, in the event of a dissolution or liquidation of the Company, all outstanding Stock Awards (other than Stock Awards consisting of vested and outstanding shares of Common Stock not subject to a forfeiture condition or the Company's right of repurchase) shall terminate immediately prior to the completion of such dissolution or liquidation, and the shares of Common Stock subject to the Company's repurchase rights or subject to a forfeiture condition may be repurchased or reacquired by the Company notwithstanding the fact that the holder of such Stock Award is providing Continuous Service, *provided, however*, that the Board may, in its sole discretion, cause some or all Stock Awards to become fully vested, exercisable and/or no longer subject to repurchase or forfeiture (to the extent such Stock Awards have not previously expired or terminated) before the dissolution or liquidation is completed but contingent on its completion.

(c) Corporate Transaction. The following provisions shall apply to Stock Awards in the event of a Corporate Transaction unless otherwise provided in the instrument evidencing the Stock Award or any other written agreement between the Company or any Affiliate and the holder of the Stock Award or unless otherwise expressly provided by the Board at the time of grant of a Stock Award. In the event of a Corporate Transaction, then, notwithstanding any other provision of the Plan, the Board shall take one or more of the following actions with respect to Stock Awards, contingent upon the closing or completion of the Corporate Transaction:

(i) arrange for the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company) to assume or continue the Stock Award or to substitute a similar stock award for the Stock Award (including, but not limited to, an award to acquire the same consideration paid to the stockholders of the Company pursuant to the Corporate Transaction);

(ii) arrange for the assignment of any reacquisition or repurchase rights held by the Company in respect of Common Stock issued pursuant to the Stock Award to the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company);

(iii) accelerate the vesting of the Stock Award (and, if applicable, the time at which the Stock Award may be exercised) to a date prior to the effective time of such Corporate Transaction as the Board shall determine (or, if the Board shall not determine such a date, to the date that is five days prior to the effective date of the Corporate Transaction), with such Stock Award terminating if not exercised (if applicable) at or prior to the effective time of the Corporate Transaction;

(iv) arrange for the lapse of any reacquisition or repurchase rights held by the Company with respect to the Stock Award;

(v) cancel or arrange for the cancellation of the Stock Award, to the extent not vested or not exercised prior to the effective time of the Corporate Transaction, in exchange for such cash consideration, if any, as the Board, in its sole discretion, may consider appropriate; and

(vi) make a payment, in such form as may be determined by the Board equal to the excess, if any, of (A) the value of the property the Participant would have received upon the exercise of the Stock Award immediately prior to the effective time of the Corporate Transaction, over (B) any exercise price payable by such holder in connection with such exercise.

The Board need not take the same action or actions with respect to all Stock Awards or portions thereof or with respect to all Participants.

(d) Change in Control. A Stock Award may be subject to additional acceleration of vesting and exercisability upon or after a Change in Control as may be provided in the Stock Award Agreement for such Stock Award or as may be provided in any other written agreement between the Company or any Affiliate and the Participant, but in the absence of such provision, the following provisions shall govern:

(i) If a Change in Control occurs and the Stock Awards of a Participant who is, as of immediately prior to the Change in Control, providing Continuous Service (a "Current Participant") are not assumed by the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company) or such successor corporation does not substitute substantially similar awards for those Stock Awards outstanding under the Plan, such Stock Awards shall become fully vested (and, with respect to Options and Stock Appreciation Rights, the time when such Stock Awards may be exercised) and any reacquisition or repurchase rights held by the Company with respect to the Stock Award shall lapse. The Board, in its sole discretion, shall determine whether a Stock Award has been assumed by the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company) or whether such successor corporation has substituted substantially similar awards for those Stock Awards outstanding under the Plan in connection with a Change in Control.

(ii) In the event of a Change in Control in which the Current Participant's Stock Awards are assumed by the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company) or such successor corporation or such successor corporation continues substantially similar awards for those Stock Awards outstanding under the Plan, if such Current Participant's Continuous Services terminates due to an involuntary termination (not including death or Disability) without Cause by the Company or due to a voluntary termination that is a Resignation for Good Reason by the Participant, in either case on or within 12 months after the effective time of the Change in Control, and provided such termination of service is a "separation from service" as defined under Treasury Regulation Section 1.409A-1(h)), then, effective as of the date of the termination of Continuous Service, such Stock Awards shall become fully vested (and, with respect to Options and Stock Appreciation Rights, the time when such Stock Awards may be exercised) and any reacquisition or repurchase rights held by the Company with respect to the Stock Award shall lapse. Such Stock Awards shall remain exercisable, as applicable, until the earlier of the expiration date of the Stock Award or three months following such Current Participant's termination of Continuous Service.

(e) Parachute Payments. Unless otherwise provided in an agreement between a Participant and the Company, if any payment or benefit the Participant would receive pursuant to a Change in Control from the Company or otherwise ("***Payment***") would (i) constitute a "parachute payment" within the meaning of Section 280G of the Code, and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the "***Excise Tax***"), then such Payment shall be equal to the Reduced Amount. The "***Reduced Amount***" shall be either (x) the largest portion of the Payment that would result in no portion of the Payment being subject to the Excise Tax or (y) the largest portion, up to and including the total, of the Payment, whichever amount, after taking into account all applicable federal, state and local employment taxes, income taxes, and the Excise Tax (all computed at the highest applicable marginal rate), results in the Participant's receipt, on an after-tax basis, of the greater amount of the Payment notwithstanding that all or some portion of the Payment may be subject to the Excise Tax. If a reduction in payments or benefits constituting "parachute payments" is necessary so that the Payment equals the Reduced Amount, reduction shall occur in the following order: reduction of cash payments; cancellation of accelerated vesting of Stock Awards other than Options; cancellation of accelerated vesting of Options; and reduction of employee benefits. In the event that acceleration of vesting of Stock Award compensation is to be reduced, such acceleration of vesting shall be cancelled in the reverse order of the date of grant of the Participant's applicable type of Stock Awards (*i.e.*, earliest granted Stock Award cancelled last).

The accounting firm engaged by the Company for general audit purposes as of the day prior to the effective date of the Change in Control shall perform the foregoing calculations. If the accounting firm so engaged by the Company is serving as accountant or auditor for the individual, entity or group effecting the Change in Control, the Company shall appoint a nationally recognized accounting firm to make the determinations required hereunder. The Company shall bear all expenses with respect to the determinations by such accounting firm required to be made hereunder. The accounting firm engaged to make the determinations hereunder shall provide its calculations, together with detailed supporting documentation, to the Participant and the Company within 15 calendar days after the date on which the Participant's right to a Payment is triggered (if requested at that time by the Participant or the Company) or such other time as requested by the Participant or the Company. If the accounting firm determines that no Excise Tax is payable with respect to a Payment, either before or after the application of the Reduced Amount, it shall furnish the Participant and the Company with an opinion that no Excise Tax will be imposed with respect to such Payment. Any good faith determinations of the accounting firm made hereunder shall be final, binding and conclusive upon the Participant and the Company.

10. TERMINATION OR SUSPENSION OF THE PLAN.

(a) Plan Term. The Board may suspend or terminate the Plan at any time. Unless terminated sooner by the Board, the Plan shall automatically terminate on the day before the tenth anniversary of the earlier of (i) the date the Plan is adopted by the Board, or (ii) the date the Plan is approved by the stockholders of the Company. No Awards may be granted under the Plan while the Plan is suspended or after it is terminated.

(b) No Impairment of Rights. Suspension or termination of the Plan shall not impair rights and obligations under any Award granted while the Plan is in effect except with the written consent of the affected Participant.

11. EFFECTIVE DATE OF PLAN.

The Plan shall become effective on the Effective Date.

12. CHOICE OF LAW.

The law of the State of Delaware shall govern all questions concerning the construction, validity and interpretation of this Plan, without regard to that state's conflict of laws rules.

13. DEFINITIONS. As used in the Plan, the following definitions shall apply to the capitalized terms indicated below:

(a) "***Affiliate***" means, at the time of determination, any "parent" or "subsidiary" of the Company as such terms are defined in Rule 405 of the Securities Act. The Board shall have the authority to determine the time or times at which "parent" or "subsidiary" status is determined within the foregoing definition.

(b) "***Award***" means a Stock Award or a Performance Cash Award.

(c) "***Award Agreement***" means a written agreement between the Company and a Participant evidencing the terms and conditions of an Award.

(d) "***Board***" means the Board of Directors of the Company.

(e) "***Capitalization Adjustment***" means any change that is made in, or other events that occur with respect to, the Common Stock subject to the Plan or subject to any Stock Award after the Effective Date without the receipt of consideration by the Company through merger, consolidation, reorganization, recapitalization,

reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or any similar equity restructuring transaction, as that term is used in Statement of Financial Accounting Standards No. 123 (revised). Notwithstanding the foregoing, the conversion of any convertible securities of the Company shall not be treated as a Capitalization Adjustment.

(f) "***Cause***" shall have the meaning ascribed to such term in any written agreement between the Participant and the Company defining such term and, in the absence of such agreement, such term shall mean, with respect to a Participant, the occurrence of any of the following events: (i) the Participant's commission of an act of fraud, embezzlement or dishonesty that has a material adverse impact on the Company or an Affiliate; (ii) the Participant's conviction of, or plea of "guilty" or "no contest" to, a felony; (iii) the Participant's unauthorized use or disclosure of confidential information or trade secrets of the Company or an Affiliate that has a material adverse impact on such entity; or (iv) the Participant's intentional misconduct that has a material adverse impact on the Company or an Affiliate. Any determination by the Company that the Continuous Service of a Participant was terminated with or without Cause for the purposes of outstanding Awards held by such Participant shall have no effect upon any determination of the rights or obligations of the Company or such Participant for any other purpose.

(g) "***Change in Control***" means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) any Exchange Act Person becomes the Owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company's then outstanding securities other than by virtue of a merger, consolidation or similar transaction. Notwithstanding the foregoing, a Change in Control shall not be deemed to occur (A) on account of the acquisition of securities of the Company directly from the Company, (B) on account of the acquisition of securities of the Company by an investor, any affiliate thereof or any other Exchange Act Person that acquires the Company's securities in a transaction or series of related transactions the primary purpose of which is to obtain financing for the Company through the issuance of equity securities, or (C) solely because the level of Ownership held by any Exchange Act Person (the "***Subject Person***") exceeds the designated percentage threshold of the outstanding voting securities as a result of a repurchase or other acquisition of voting securities by the Company reducing the number of shares outstanding, provided that if a Change in Control would occur (but for the operation of this sentence) as a result of the acquisition of voting securities by the Company, and after such share acquisition, the Subject Person becomes the Owner of any additional voting securities that, assuming the repurchase or other acquisition had not occurred, increases the percentage of the then outstanding voting securities Owned by the Subject Person over the designated percentage threshold, then a Change in Control shall be deemed to occur;

(ii) there is consummated a merger, consolidation or similar transaction involving (directly or indirectly) the Company and, immediately after the consummation of such merger, consolidation or similar transaction, the stockholders of the Company immediately prior thereto do not Own, directly or indirectly, either (A) outstanding voting securities representing more than 50% of the combined outstanding voting power of the surviving Entity in such merger, consolidation or similar transaction or (B) more than 50% of the combined outstanding voting power of the parent of the surviving Entity in such merger, consolidation or similar transaction, in each case in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such transaction;

(iii) there is consummated a sale, lease, exclusive license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries, other than a sale, lease, license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries to an Entity, more than 50% of the combined voting power of the voting securities of which

are Owned by stockholders of the Company in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such sale, lease, license or other disposition; or

(iv) individuals who, on the date the Plan is adopted by the Board, are members of the Board (the "***Incumbent Board***") cease for any reason to constitute at least a majority of the members of the Board; *provided, however*, that if the appointment or election (or nomination for election) of any new Board member was approved or recommended by a majority vote of the members of the Incumbent Board then still in office, such new member shall, for purposes of this Plan, be considered as a member of the Incumbent Board.

Notwithstanding the foregoing or any other provision of this Plan, (A) the term Change in Control shall not include a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of the Company, and (B) the definition of Change in Control (or any analogous term) in an individual written agreement between the Company or any Affiliate and the Participant shall supersede the foregoing definition with respect to Awards subject to such agreement; *provided, however*, that if no definition of Change in Control or any analogous term is set forth in such an individual written agreement, the foregoing definition shall apply.

In addition, to the extent required for compliance with Section 409A of the Code, in no event shall a Change in Control be deemed to have occurred if such transaction is not also a "change in the ownership or effective control of" the Company or "a change in the ownership of a substantial portion of the assets of" the Company as determined under Treasury Regulation Section 1.409A-3(i)(5) (without regard to any alternative definition thereunder).

(h) "***Code***" means the Internal Revenue Code of 1986, as amended, including any applicable regulations and guidance thereunder.

(i) "***Committee***" means a committee of one or more Directors to whom authority has been delegated by the Board in accordance with Section 2(c).

(j) "***Common Stock***" means the common stock of the Company.

(k) "***Company***" means Sunesis Pharmaceuticals, Inc., a Delaware corporation.

(l) "***Consultant***" means any person, including an advisor, who is (i) engaged by the Company or an Affiliate to render consulting or advisory services and is compensated for such services, or (ii) serving as a member of the board of directors of an Affiliate and is compensated for such services. However, service solely as a Director, or payment of a fee for such service, shall not cause a Director to be considered a "Consultant" for purposes of the Plan. Notwithstanding the foregoing, a person is treated as a Consultant under this Plan only if a Form S-8 Registration Statement under the Securities Act is available to register either the offer or the sale of the Company's securities to such person.

(m) "***Continuous Service***" means that the Participant's service with the Company or an Affiliate, whether as an Employee, Director or Consultant, is not interrupted or terminated. A change in the capacity in which the Participant renders service to the Company or an Affiliate as an Employee, Consultant or Director or a change in the entity for which the Participant renders such service, provided that there is no interruption or termination of the Participant's service with the Company or an Affiliate, shall not terminate a Participant's Continuous Service; *provided, however,* if the Entity for which a Participant is rendering services ceases to qualify as an Affiliate, as determined by the Board, in its sole discretion, such Participant's Continuous Service shall be considered to have terminated on the date such Entity ceases to qualify as an Affiliate. To the extent permitted by law, the Board or the chief executive officer of the Company, in that party's sole discretion, may determine whether Continuous

Service shall be considered interrupted in the case of (i) any leave of absence approved by the Board or chief executive officer, including sick leave, military leave or any other personal leave, or (ii) transfers between the Company, an Affiliate, or their successors. Notwithstanding the foregoing, a leave of absence shall be treated as Continuous Service for purposes of vesting in an Award only to such extent as may be provided in the Company's leave of absence policy, in the written terms of any leave of absence agreement or policy applicable to the Participant, or as otherwise required by law. In addition, to the extent required for exemption from or compliance with Section 409A of the Code, the determination of whether there has been a termination of Continuous Service shall be made, and such term shall be construed, in a manner that is consistent with the definition of "separation from service" as defined under Treasury Regulation Section 1.409A-1(h) (without regard to any alternative definition thereunder).

(n) "***Corporate Transaction***" means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) the consummation of a sale or other disposition of all or substantially all, as determined by the Board, in its sole discretion, of the consolidated assets of the Company and its Subsidiaries;

(ii) the consummation of a sale or other disposition of at least 90% of the outstanding securities of the Company;

(iii) the consummation of a merger, consolidation or similar transaction following which the Company is not the surviving corporation; or

(iv) the consummation of a merger, consolidation or similar transaction following which the Company is the surviving corporation but the shares of Common Stock outstanding immediately preceding the merger, consolidation or similar transaction are converted or exchanged by virtue of the merger, consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

To the extent required for compliance with Section 409A of the Code, in no event shall an event be deemed a Corporate Transaction if such transaction is not also a "change in the ownership or effective control of" the Company or "a change in the ownership of a substantial portion of the assets of" the Company as determined under Treasury Regulation Section 1.409A-3(i)(5) (without regard to any alternative definition thereunder).

(o) "***Covered Employee***" shall have the meaning provided in Section 162(m)(3) of the Code.

(p) "***Director***" means a member of the Board.

(q) "***Disability***" means, with respect to a Participant, the inability of such Participant to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months, as provided in Sections 22(e)(3) and 409A(a)(2)(c)(i) of the Code, and shall be determined by the Board on the basis of such medical evidence as the Board deems warranted under the circumstances.

(r) "***Effective Date***" means the effective date of the Plan, which is the date of the annual meeting of the stockholders of the Company held in 2011, provided that the Plan is approved by the Company's stockholders at such meeting.

(s) "***Employee***" means any person employed by the Company or an Affiliate. However, service solely as a Director, or payment of a fee for such services, shall not cause a Director to be considered an "Employee" for purposes of the Plan.

(t) "***Entity***" means a corporation, partnership, limited liability company or other entity.

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

(v) "***Exchange Act Person***" means any natural person, Entity or "group" (within the meaning of Section 13(d) or 14(d) of the Exchange Act), except that "Exchange Act Person" shall not include (i) the Company or any Subsidiary of the Company, (ii) any employee benefit plan of the Company or any Subsidiary of the Company or any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any Subsidiary of the Company, (iii) an underwriter temporarily holding securities pursuant to a registered public offering of such securities, (iv) an Entity Owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their Ownership of stock of the Company; or (v) any natural person, Entity or "group" (within the meaning of Section 13(d) or 14(d) of the Exchange Act) that, as of the Effective Date, is the Owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company's then outstanding securities.

(w) "***Fair Market Value***" means, as of any date, the value of the Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or traded on any established market, the Fair Market Value of a share of Common Stock shall be, unless otherwise determined by the Board, the closing sales price for such stock as quoted on such exchange or market (or the exchange or market with the greatest volume of trading in the Common Stock) on the date of determination, as reported in a source the Board deems reliable.

(ii) Unless otherwise provided by the Board, if there is no closing sales price for the Common Stock on the date of determination, then the Fair Market Value shall be the closing selling price on the last preceding date for which such quotation exists.

(iii) In the absence of such markets for the Common Stock, the Fair Market Value shall be determined by the Board in good faith and in a manner that complies with Sections 409A and 422 of the Code.

(x) "***Incentive Stock Option***" means an option granted pursuant to Section 5 of the Plan that is intended to be, and qualifies as, an "incentive stock option" within the meaning of Section 422 of the Code.

(y) "***Non-Employee Director***" means a Director who either (i) is not a current employee or officer of the Company or an Affiliate, does not receive compensation, either directly or indirectly, from the Company or an Affiliate for services rendered as a consultant or in any capacity other than as a Director (except for an amount as to which disclosure would not be required under Item 404(a) of Regulation S-K promulgated pursuant to the Securities Act ("***Regulation S-K***")), does not possess an interest in any other transaction for which disclosure would be required under Item 404(a) of Regulation S-K, and is not engaged in a business relationship for which disclosure would be required pursuant to Item 404(b) of Regulation S-K; or (ii) is otherwise considered a "non-employee director" for purposes of Rule 16b-3.

(z) "***Nonstatutory Stock Option***" means any option granted pursuant to Section 5 of the Plan that does not qualify as an Incentive Stock Option.

(aa) "***Officer***" means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act.

(bb) "***Option***" means an Incentive Stock Option or a Nonstatutory Stock Option to purchase shares of Common Stock granted pursuant to the Plan.

(cc) "***Option Agreement***" means a written agreement between the Company and an Optionholder evidencing the terms and conditions of an Option grant. Each Option Agreement shall be subject to the terms and conditions of the Plan.

(dd) "***Optionholder***" means a person to whom an Option is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Option.

(ee) "***Other Stock Award***" means an award based in whole or in part by reference to the Common Stock which is granted pursuant to the terms and conditions of Section 6(d).

(ff) "***Other Stock Award Agreement***" means a written agreement between the Company and a holder of an Other Stock Award evidencing the terms and conditions of an Other Stock Award grant. Each Other Stock Award Agreement shall be subject to the terms and conditions of the Plan.

(gg) "***Outside Director***" means a Director who either (i) is not a current employee of the Company or an "affiliated corporation" (within the meaning of Treasury Regulations promulgated under Section 162(m) of the Code), is not a former employee of the Company or an "affiliated corporation" who receives compensation for prior services (other than benefits under a tax-qualified retirement plan) during the taxable year, has not been an officer of the Company or an "affiliated corporation," and does not receive remuneration from the Company or an "affiliated corporation," either directly or indirectly, in any capacity other than as a Director, or (ii) is otherwise considered an "outside director" for purposes of Section 162(m) of the Code.

(hh) "***Own,***" "***Owned,***" "***Owner,***" "***Ownership***" A person or Entity shall be deemed to "Own," to have "Owned," to be the "Owner" of, or to have acquired "Ownership" of securities if such person or Entity, directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has or shares voting power, which includes the power to vote or to direct the voting, with respect to such securities.

(ii) "***Participant***" means a person to whom an Award is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Stock Award.

(jj) "***Performance Cash Award***" means an award of cash granted pursuant to the terms and conditions of Section 6(c)(ii).

(kk) "***Performance Criteria***" means the one or more criteria that the Board shall select for purposes of establishing the Performance Goals for a Performance Period. The Performance Criteria that shall be used to establish such Performance Goals may be based on any one of, or combination of, the following as determined by the Board: (i) earnings (including earnings per share and net earnings); (ii) earnings before interest, taxes and depreciation; (iii) earnings before interest, taxes, depreciation and amortization; (iv) total stockholder return; (v) return on equity or average stockholder's equity; (vi) return on assets, investment, or capital employed; (vii) stock price; (viii) margin (including gross margin); (ix) income (before or after taxes); (x) operating income; (xi) operating income after taxes; (xii) pre-tax profit; (xiii) operating cash flow; (xiv) sales or revenue targets; (xv) increases in revenue or product revenue; (xvi) expenses and cost reduction goals; (xvii) improvement in or attainment of working capital levels; (xiii) economic value added (or an equivalent metric); (xix) market share; (xx) cash flow; (xxi) cash flow per share; (xxii) share price performance; (xxiii) debt reduction; (xxiv) implementation or completion of projects or processes; (xxv) customer satisfaction; (xxvi) stockholders' equity; (xxvii) capital expenditures; (xxiii) debt levels; (xxix) operating profit or net operating profit; (xxx) workforce diversity; (xxxi) growth of net income or operating income; (xxxii) billings; and (xxxiii) to the extent that an Award is not intended to comply with Section 162(m) of the Code, other measures of performance selected by the Board.

(ll) "***Performance Goals***" means, for a Performance Period, the one or more goals established by the Board for the Performance Period based upon the Performance Criteria. Performance Goals may be based on a Company-wide basis, with respect to one or more business units, divisions, Affiliates, or business segments, and in either absolute terms or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. Unless specified otherwise by the Board (i) in the Award Agreement at the time the Award is granted or (ii) in such other document setting forth the Performance Goals at the time the Performance Goals are established, the Board shall appropriately make adjustments in the method of calculating the attainment of Performance Goals for a Performance Period as follows: (1) to exclude restructuring and/or

other nonrecurring charges; (2) to exclude exchange rate effects, as applicable, for non-U.S. dollar denominated Performance Goals; (3) to exclude the effects of changes to generally accepted accounting principles; (4) to exclude the effects of any statutory adjustments to corporate tax rates; (5) to exclude the effects of any "extraordinary items" as determined under generally accepted accounting principles, (6) to exclude the dilutive effects of acquisitions or joint ventures; (7) to assume that any business divested by the Company achieved performance objectives at targeted levels during the balance of a Performance Period following such divestiture; (8) to exclude the effect of any change in the outstanding shares of common stock of the Company by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common shareholders other than regular cash dividends; (9) to exclude the effects of stock based compensation and/or the award of bonuses under the Company's bonus plans and (10) to exclude the effect of any other unusual, non-recurring gain or loss or other extraordinary item. In addition, the Board retains the discretion to reduce or eliminate the compensation or economic benefit due upon attainment of Performance Goals and to define the manner of calculating the Performance Criteria it selects to use for such Performance Period. Partial achievement of the specified criteria may result in the payment or vesting corresponding to the degree of achievement as specified in the Stock Award Agreement or the written terms of a Performance Cash Award.

(mm) "***Performance Period***" means the period of time selected by the Board over which the attainment of one or more Performance Goals will be measured for the purpose of determining a Participant's right to and the payment of a Stock Award or a Performance Cash Award. Performance Periods may be of varying and overlapping duration, at the sole discretion of the Board.

(nn) "***Performance Stock Award***" means a Stock Award granted under the terms and conditions of Section 6(c)(i).

(oo) "***Plan***" means this Sunesis Pharmaceuticals, Inc. 2011 Equity Incentive Plan.

(pp) "***Resignation for Good Reason***" means voluntary termination by a Participant from all positions he or she then holds with the Company, which resignation results in a "separation from service" with the Company within the meaning of Treasury Regulation Section 1.409A-1(h), effective within a period of 90 days after the Participant provides written notice to the Company after the initial occurrence of one of the following actions taken without his or her written consent, which written notice must be provided within 30 days after the initial occurrence of one of the following actions, and must reasonably specify the particulars of the action; *provided, however*, that following the receipt of notice by the Company, the Company shall have a period of 30 days during which to remedy the action giving rise to a Resignation for Good Reason and if such action is materially remedied by the Company during such period, no event giving rise to a right for a Resignation for Good Reason shall be deemed to have occurred:

(i) the assignment to the Participant of any duties or responsibilities that results in a material diminution in the Participant's employment role in the Company as in effect immediately prior to the date of such actions; *provided, however,* that mere changes in the Participant's title or reporting relationships alone shall not constitute a basis for Resignation for Good Reason;

(ii) a greater than 10% aggregate reduction by the Company in the Participant's annual base salary (that is, a material reduction in base compensation), as in effect immediately prior to the date of such actions; *provided, however,* that if there are across-the-board proportionate salary reductions for all other similarly situated Employees or Consultants, as determined by the Board, by the same percentage amount as part of a general salary reduction, the reduction as to that Participant shall not constitute a basis for Resignation for Good Reason; or

(iii) a non-temporary relocation of the Participant's business office to a location that increases Participant's one way commute by more than 50 miles from the location at which the Participant performs duties as of immediately prior to the date of such action.

(qq) "***Restricted Stock Award***" means an award of shares of Common Stock which is granted pursuant to the terms and conditions of Section 6(a).

(rr) "***Restricted Stock Award Agreement***" means a written agreement between the Company and a holder of a Restricted Stock Award evidencing the terms and conditions of a Restricted Stock Award grant. Each Restricted Stock Award Agreement shall be subject to the terms and conditions of the Plan.

(ss) "***Restricted Stock Unit Award***" means a right to receive shares of Common Stock which is granted pursuant to the terms and conditions of Section 6(b).

(tt) "***Restricted Stock Unit Award Agreement***" means a written agreement between the Company and a holder of a Restricted Stock Unit Award evidencing the terms and conditions of a Restricted Stock Unit Award grant. Each Restricted Stock Unit Award Agreement shall be subject to the terms and conditions of the Plan.

(uu) "***Rule 16b-3***" means Rule 16b-3 promulgated under the Exchange Act or any successor to Rule 16b-3, as in effect from time to time.

(vv) "***Securities Act***" means the Securities Act of 1933, as amended.

(ww) "***Stock Appreciation Right***" or "***SAR***" means a right to receive the appreciation on Common Stock that is granted pursuant to the terms and conditions of Section 5.

(xx) "***Stock Appreciation Right Agreement***" means a written agreement between the Company and a holder of a Stock Appreciation Right evidencing the terms and conditions of a Stock Appreciation Right grant. Each Stock Appreciation Right Agreement shall be subject to the terms and conditions of the Plan.

(yy) "***Stock Award***" means any right to receive Common Stock granted under the Plan, including an Incentive Stock Option, a Nonstatutory Stock Option, a Restricted Stock Award, a Restricted Stock Unit Award, a Stock Appreciation Right, a Performance Stock Award or any Other Stock Award.

(zz) "***Stock Award Agreement***" means a written agreement between the Company and a Participant evidencing the terms and conditions of a Stock Award grant. Each Stock Award Agreement shall be subject to the terms and conditions of the Plan.

(aaa) "***Subsidiary***" means, with respect to the Company, (i) any corporation of which more than 50% of the outstanding capital stock having ordinary voting power to elect a majority of the board of directors of such corporation (irrespective of whether, at the time, stock of any other class or classes of such corporation shall have or might have voting power by reason of the happening of any contingency) is at the time, directly or indirectly, Owned by the Company, and (ii) any partnership, limited liability company or other entity in which the Company has a direct or indirect interest (whether in the form of voting or participation in profits or capital contribution) of more than 50%.

(bbb) "***Ten Percent Stockholder***" means a person who Owns (or is deemed to Own pursuant to Section 424(d) of the Code) stock possessing more than ten percent of the total combined voting power of all classes of stock of the Company or any Affiliate.

SUNESIS PHARMACEUTICALS, INC.

2011 EMPLOYEE STOCK PURCHASE PLAN

ADOPTED BY THE BOARD OF DIRECTORS: MARCH 15, 2011
APPROVED BY THE STOCKHOLDERS: [ ], 2011

1. GENERAL.

(a) The purpose of the Plan is to provide a means by which Eligible Employees of the Company and certain designated Related Corporations may be given an opportunity to purchase shares of Common Stock. The Plan is intended to permit the Company to grant a series of Purchase Rights to Eligible Employees under an Employee Stock Purchase Plan.

(b) The Company, by means of the Plan, seeks to retain the services of such Employees, to secure and retain the services of new Employees and to provide incentives for such persons to exert maximum efforts for the success of the Company and its Related Corporations.

2. ADMINISTRATION.

(a) The Board shall administer the Plan unless and until the Board delegates administration of the Plan to a Committee or Committees, as provided in Section 2(c).

(b) The Board shall have the power, subject to, and within the limitations of, the express provisions of the Plan:

(i) To determine how and when Purchase Rights to purchase shares of Common Stock shall be granted and the provisions of each Offering of such Purchase Rights (which need not be identical).

(ii) To designate from time to time which Related Corporations of the Company shall be eligible to participate in the Plan.

(iii) To construe and interpret the Plan and Purchase Rights, and to establish, amend and revoke rules and regulations for its administration. The Board, in the exercise of this power, may correct any defect, omission or inconsistency in the Plan, in a manner and to the extent it shall deem necessary or expedient to make the Plan fully effective.

(iv) To settle all controversies regarding the Plan and Purchase Rights granted under it.

(v) To suspend or terminate the Plan at any time as provided in Section 12.

(vi) To amend the Plan at any time as provided in Section 12.

(vii) Generally, to exercise such powers and to perform such acts as it deems necessary or expedient to promote the best interests of the Company and its Related Corporations and to carry out the intent that the Plan be treated as an Employee Stock Purchase Plan.

(viii) To adopt such procedures and sub-plans as are necessary or appropriate to permit participation in the Plan by Employees who are foreign nationals or employed outside the United States.

(c) The Board may delegate some or all of the administration of the Plan to a Committee or Committees. If administration is delegated to a Committee, the Committee shall have, in connection with the administration of the Plan, the powers theretofore possessed by the Board that have been delegated to the Committee, including the power to delegate to a subcommittee any of the administrative powers the Committee is authorized to exercise

(and references in this Plan to the Board shall thereafter be to the Committee or subcommittee), subject, however, to such resolutions, not inconsistent with the provisions of the Plan, as may be adopted from time to time by the Board. The Board may retain the authority to concurrently administer the Plan with the Committee and may, at any time, revest in the Board some or all of the powers previously delegated. Whether or not the Board has delegated administration of the Plan to a Committee, the Board shall have the final power to determine all questions of policy and expediency that may arise in the administration of the Plan.

(d) All determinations, interpretations and constructions made by the Board in good faith shall not be subject to review by any person and shall be final, binding and conclusive on all persons.

3. SHARES OF COMMON STOCK SUBJECT TO THE PLAN.

(a) Subject to the provisions of Section 11(a) relating to Capitalization Adjustments, the shares of Common Stock that may be sold pursuant to Purchase Rights shall not exceed in the aggregate 500,000 shares of Common Stock. In addition, the number of shares of Common Stock available for issuance under the Plan shall automatically increase on January 1st of each year, commencing on January 1, 2012 and ending on (and including) January 1, 2021, in an amount equal 1% of the total number of shares of Common Stock outstanding on December 31st of the preceding calendar year. Notwithstanding the foregoing, the Board may act prior to the first day of any calendar year, to provide that there shall be no increase in the share reserve for such calendar year or that the increase in the share reserve for such calendar year shall be a lesser number of shares of Common Stock than would otherwise occur pursuant to the preceding sentence.

(b) If any Purchase Right granted under the Plan shall for any reason terminate without having been exercised, the shares of Common Stock not purchased under such Purchase Right shall again become available for issuance under the Plan.

(c) The stock purchasable under the Plan shall be shares of authorized but unissued or reacquired Common Stock, including shares repurchased by the Company on the open market.

4. GRANT OF PURCHASE RIGHTS; OFFERING.

(a) The Board may from time to time grant or provide for the grant of Purchase Rights to purchase shares of Common Stock under the Plan to Eligible Employees in an Offering (consisting of one or more Purchase Periods) on an Offering Date or Offering Dates selected by the Board. Each Offering shall be in such form and shall contain such terms and conditions as the Board shall deem appropriate, which shall comply with the requirement of Section 423(b)(5) of the Code that all Employees granted Purchase Rights shall have the same rights and privileges. The terms and conditions of an Offering shall be incorporated by reference into the Plan and treated as part of the Plan. The provisions of separate Offerings need not be identical, but each Offering shall include (through incorporation of the provisions of this Plan by reference in the document comprising the Offering or otherwise) the period during which the Offering shall be effective, which period shall not exceed twenty-seven (27) months beginning with the Offering Date, and the substance of the provisions contained in Sections 5 through 8, inclusive.

(b) If a Participant has more than one Purchase Right outstanding under the Plan, unless he or she otherwise indicates in agreements or notices delivered hereunder: (i) each agreement or notice delivered by that Participant shall be deemed to apply to all of his or her Purchase Rights under the Plan, and (ii) a Purchase Right with a lower exercise price (or an earlier-granted Purchase Right, if different Purehase Rights have identical exercise prices) shall be exercised to the fullest possible extent before a Purchase Right with a higher exercise price (or a later-granted Purchase Right if different Purchase Rights have identical exercise prices) shall be exercised.

(c) The Board shall have the discretion to structure an Offering so that if the Fair Market Value of the shares of Common Stock on the first day of a new Purchase Period within that Offering is less than or equal to

the Fair Market Value of the shares of Common Stock on the Offering Date, then (i) that Offering shall terminate immediately, and (ii) the Participants in such terminated Offering shall be automatically enrolled in a new Offering beginning on the first day of such new Purchase Period.

5. ELIGIBILITY.

(a) Purchase Rights may be granted only to Employees of the Company or, as the Board may designate as provided in Section 2(b), to Employees of a Related Corporation. Except as provided in Section 5(b), an Employee shall not be eligible to be granted Purchase Rights under the Plan unless, on the Offering Date, such Employee has been in the employ of the Company or the Related Corporation, as the case may be, for such continuous period preceding such Offering Date as the Board may require, but in no event shall the required period of continuous employment be greater than two (2) years. In addition, the Board may provide that no Employee shall be eligible to be granted Purchase Rights under the Plan unless, on the Offering Date, such Employee's customary employment with the Company or the Related Corporation is more than twenty (20) hours per week and more than five (5) months per calendar year or such other criteria as the Board may determine consistent with Section 423 of the Code.

(b) The Board may provide that each person who, during the course of an Offering, first becomes an Eligible Employee shall, on a date or dates specified in the Offering which coincides with the day on which such person becomes an Eligible Employee or which occurs thereafter, receive a Purchase Right under that Offering, which Purchase Right shall thereafter be deemed to be a part of that Offering. Such Purchase Right shall have the same characteristics as any Purchase Rights originally granted under that Offering, as described herein, except that:

(i) the date on which such Purchase Right is granted shall be the "Offering Date" of such Purchase Right for all purposes, including determination of the exercise price of such Purchase Right;

(ii) the period of the Offering with respect to such Purchase Right shall begin on its Offering Date and end coincident with the end of such Offering; and

(iii) the Board may provide that if such person first becomes an Eligible Employee within a specified period of time before the end of the Offering, he or she shall not receive any Purchase Right under that Offering.

(c) No Employee shall be eligible for the grant of any Purchase Rights under the Plan if, immediately after any such Purchase Rights are granted, such Employee owns stock possessing five percent (5%) or more of the total combined voting power or value of all classes of stock of the Company or of any Related Corporation. For purposes of this Section 5(c), the rules of Section 424(d) of the Code shall apply in determining the stock ownership of any Employee, and stock which such Employee may purchase under all outstanding Purchase Rights and options shall be treated as stock owned by such Employee.

(d) As specified by Section 423(b)(8) of the Code, an Eligible Employee may be granted Purchase Rights under the Plan only if such Purchase Rights, together with any other rights granted under all Employee Stock Purchase Plans of the Company and any Related Corporations, do not permit such Eligible Employee's rights to purchase stock of the Company or any Related Corporation to accrue at a rate which exceeds twenty five thousand dollars ($25,000) of Fair Market Value of such stock (determined at the time such rights are granted, and which, with respect to the Plan, shall be determined as of their respective Offering Dates) for each calendar year in which such rights are outstanding at any time.

(e) Officers of the Company and any designated Related Corporation, if they are otherwise Eligible Employees, shall be eligible to participate in Offerings under the Plan. Notwithstanding the foregoing, the Board may provide in an Offering that Employees who are highly compensated Employees within the meaning of Section 423(b)(4)(D) of the Code shall not be eligible to participate.

6. PURCHASE RIGHTS; PURCHASE PRICE.

(a) On each Offering Date, each Eligible Employee, pursuant to an Offering made under the Plan, shall be granted a Purchase Right to purchase up to that number of shares of Common Stock purchasable either with a percentage or with a maximum dollar amount, as designated by the Board, but in either case not exceeding fifteen percent (15%) of such Employee's earnings (as defined by the Board in each Offering) during the period that begins on the Offering Date (or such later date as the Board determines for a particular Offering) and ends on the date stated in the Offering, which date shall be no later than the end of the Offering.

(b) The Board shall establish one (1) or more Purchase Dates during an Offering as of which Purchase Rights granted pursuant to that Offering shall be exercised and purchases of shares of Common Stock shall be carried out in accordance with such Offering.

(c) In connection with each Offering made under the Plan, the Board may specify a maximum number of shares of Common Stock that may be purchased by any Participant on any Purchase Date during such Offering. In connection with each Offering made under the Plan, the Board may specify a maximum aggregate number of shares of Common Stock that may be purchased by all Participants pursuant to such Offering. In addition, in connection with each Offering that contains more than one Purchase Date, the Board may specify a maximum aggregate number of shares of Common Stock that may be purchased by all Participants on any Purchase Date under the Offering. If the aggregate purchase of shares of Common Stock issuable upon exercise of Purchase Rights granted under the Offering would exceed any such maximum aggregate number, then, in the absence of any Board action otherwise, a pro rata (based on each Participant's accumulated earnings contributions) allocation of the shares of Common Stock available shall be made in as nearly a uniform manner as shall be practicable and equitable.

(d) The purchase price of shares of Common Stock acquired pursuant to Purchase Rights shall be not less than the lesser of:

(i) an amount equal to eighty-five percent (85%) of the Fair Market Value of the shares of Common Stock on the Offering Date; or

(ii) an amount equal to eighty-five percent (85%) of the Fair Market Value of the shares of Common Stock on the applicable Purchase Date.

7. PARTICIPATION; WITHDRAWAL; TERMINATION.

(a) An Eligible Employee may elect to authorize payroll deductions pursuant to an Offering under the Plan by completing and delivering to the Company, within the time specified in the Offering, an enrollment form (in such form as the Company may provide). Each such enrollment form shall authorize an amount of Contributions expressed as a percentage of the submitting Participant's earnings (as defined in each Offering) during the Offering (not to exceed the maximum percentage specified by the Board). Each Participant's Contributions shall be credited to a bookkeeping account for such Participant under the Plan and shall be deposited with the general funds of the Company except where applicable law requires that Contributions be deposited with a third party. To the extent provided in the Offering, a Participant may begin such Contributions with the first payroll occurring on or after the beginning of the Offering. To the extent provided in the Offering, a Participant may thereafter reduce (including to zero) or increase his or her Contributions. To the extent specifically provided in the Offering, in addition to making Contributions by payroll deductions, a Participant may make Contributions through the payment by cash or check prior to each Purchase Date of the Offering.

(b) During an Offering, a Participant may cease making Contributions and withdraw from the Offering by delivering to the Company a notice of withdrawal in such form as the Company may provide. Such withdrawal may be elected at any time prior to the end of the Offering, except as provided otherwise in the Offering. Upon

such withdrawal from the Offering by a Participant, the Company shall distribute to such Participant all of his or her accumulated Contributions (reduced to the extent, if any, such Contributions have been used to acquire shares of Common Stock for the Participant) under the Offering, and such Participant's Purchase Right in that Offering shall thereupon terminate. A Participant's withdrawal from an Offering shall have no effect upon such Participant's eligibility to participate in any other Offerings under the Plan, but such Participant shall be required to deliver a new enrollment form in order to participate in subsequent Offerings.

(c) Purchase Rights granted pursuant to any Offering under the Plan shall terminate immediately upon a Participant ceasing to be an Employee for any reason or for no reason (subject to any post-employment participation period required by law) or other lack of eligibility. The Company shall distribute to such terminated or otherwise ineligible Employee all of his or her accumulated Contributions (reduced to the extent, if any, such Contributions have been used to acquire shares of Common Stock for the terminated or otherwise ineligible Employee) under the Offering.

(d) Purchase Rights shall not be transferable by a Participant except by will, the laws of descent and distribution, or by a beneficiary designation as provided in Section 10. During a Participant's lifetime, Purchase Rights shall be exercisable only by such Participant.

(e) Unless otherwise specified in an Offering, the Company shall have no obligation to pay interest on Contributions.

8. EXERCISE OF PURCHASE RIGHTS.

(a) On each Purchase Date during an Offering, each Participant's accumulated Contributions shall be applied to the purchase of shares of Common Stock up to the maximum number of shares of Common Stock permitted pursuant to the terms of the Plan and the applicable Offering, at the purchase price specified in the Offering. No fractional shares shall be issued upon the exercise of Purchase Rights unless specifically provided for in the Offering.

(b) If any amount of accumulated Contributions remains in a Participant's account after the purchase of shares of Common Stock, then such remaining amount shall be distributed in full to such Participant at the end of the Offering without interest.

(c) No Purchase Rights may be exercised to any extent unless the shares of Common Stock to be issued upon such exercise under the Plan are covered by an effective registration statement pursuant to the Securities Act and the Plan is in material compliance with all applicable federal, state, foreign and other securities and other laws applicable to the Plan. If on a Purchase Date during any Offering hereunder the shares of Common Stock are not so registered or the Plan is not in such compliance, no Purchase Rights or any Offering shall be exercised on such Purchase Date, and the Purchase Date shall be delayed until the shares of Common Stock are subject to such an effective registration statement and the Plan is in such compliance, except that the Purchase Date shall not be delayed more than twelve (12) months and the Purchase Date shall in no event be more than twenty-seven (27) months from the Offering Date. If, on the Purchase Date under any Offering hereunder, as delayed to the maximum extent permissible, the shares of Common Stock are not registered and the Plan is not in such compliance, no Purchase Rights shall be exercised and all Contributions accumulated during the Offering (reduced to the extent, if any, such Contributions have been used to acquire shares of Common Stock) shall be distributed to the Participants without interest.

9. COVENANTS OF THE COMPANY.

The Company shall seek to obtain from each federal, state, foreign or other regulatory commission or agency having jurisdiction over the Plan such authority as may be required to issue and sell shares of Common Stock upon exercise of the Purchase Rights. If, after commercially reasonable efforts, the Company is unable to

obtain from any such regulatory commission or agency the authority that counsel for the Company deems necessary for the lawful issuance and sale of Common Stock under the Plan, and at a commercially reasonable cost, the Company shall be relieved from any liability for failure to issue and sell Common Stock upon exercise of such Purchase Rights unless and until such authority is obtained.

10. Designation of Beneficiary.

(a) A Participant may file a written designation of a beneficiary who is to receive any shares of Common Stock and/or cash, if any, from the Participant's account under the Plan in the event of such Participant's death subsequent to the end of an Offering but prior to delivery to the Participant of such shares of Common Stock or cash. In addition, a Participant may file a written designation of a beneficiary who is to receive any cash from the Participant's account under the Plan in the event of such Participant's death during an Offering. Any such designation shall be on a form provided by or otherwise acceptable to the Company.

(b) The Participant may change such designation of beneficiary at any time by written notice to the Company. In the event of the death of a Participant and in the absence of a beneficiary validly designated under the Plan who is living at the time of such Participant's death, the Company shall deliver such shares of Common Stock and/or cash to the executor or administrator of the estate of the Participant, or if no such executor or administrator has been appointed (to the knowledge of the Company), the Company, in its sole discretion, may deliver such shares of Common Stock and/or cash to the spouse or to any one or more dependents or relatives of the Participant, or if no spouse, dependent or relative is known to the Company, then to such other person as the Company may designate.

11. Adjustments upon Changes in Common Stock; Corporate Transactions.

(a) In the event of a Capitalization Adjustment, the Board shall appropriately and proportionately adjust: (i) the class(es) and maximum number of securities subject to the Plan pursuant to Section 3(a), (ii) the class(es) and maximum number of securities by which the share reserve is to increase automatically each year pursuant to Section 3(a), (iii) the class(es) and number of securities subject to, and the purchase price applicable to outstanding Offerings and Purchase Rights, and (iv) the class(es) and number of securities that are the subject of the purchase limits under each ongoing Offering. The Board shall make such adjustments, and its determination shall be final, binding and conclusive.

(b) In the event of a Corporate Transaction, then: (i) any surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company) may assume or continue Purchase Rights outstanding under the Plan or may substitute similar rights (including a right to acquire the same consideration paid to the stockholders in the Corporate Transaction) for those outstanding under the Plan; or (ii) if any surviving or acquiring corporation (or its parent company) does not assume or continue such Purchase Rights or does not substitute similar rights for Purchase Rights outstanding under the Plan, then the Participants' accumulated Contributions shall be used to purchase shares of Common Stock within ten (10) business days prior to the Corporate Transaction under any ongoing Offerings, and the Participants' Purchase Rights under the ongoing Offerings shall terminate immediately after such purchase.

12. Amendment, Termination or Suspension of the Plan.

(i) The Board may amend the Plan at any time in any respect the Board deems necessary or advisable. However, except as provided in Section 11(a) relating to Capitalization Adjustments, stockholder approval shall be required for any amendment of the Plan for which stockholder approval is required by applicable law or listing requirements, including any amendment that either (i) materially increases the number of shares of Common Stock available for issuance under the Plan, (ii) materially expands the class of individuals eligible to become Participants and receive Purchase Rights under the Plan, (iii) materially increases the benefits accruing to Participants under the Plan or materially reduces

the price at which shares of Common Stock may be purchased under the Plan, (iv) materially extends the term of the Plan, or (v) expands the types of awards available for issuance under the Plan, but in each of (i) through (v) above only to the extent stockholder approval is required by applicable law or listing requirements.

(b) The Board may suspend or terminate the Plan at any time. No Purchase Rights may be granted under the Plan while the Plan is suspended or after it is terminated.

(c) Any benefits, privileges, entitlements and obligations under any outstanding Purchase Rights granted before an amendment, suspension or termination of the Plan shall not be impaired by any such amendment, suspension or termination except (i) with the consent of the person to whom such Purchase Rights were granted, (ii) as necessary to comply with any laws, listing requirements, or governmental regulations (including, without limitation, the provisions of Section 423 of the Code and the regulations and other interpretive guidance issued thereunder relating to Employee Stock Purchase Plans) including without limitation any such regulations or other guidance that may be issued or amended after the Effective Date, or (iii) as necessary to obtain or maintain favorable tax, listing, or regulatory treatment.

13. Effective Date of Plan.

The Plan shall become effective on June 3, 2011 (the "***Effective Date***"), which is the date of the annual meeting of stockholders of the Company held in 2011, provided that the Plan is approved by the Company's stockholders at such meeting.

14. Miscellaneous Provisions.

(a) Proceeds from the sale of shares of Common Stock pursuant to Purchase Rights shall constitute general funds of the Company.

(b) A Participant shall not be deemed to be the holder of, or to have any of the rights of a holder with respect to, shares of Common Stock subject to Purchase Rights unless and until the Participant's shares of Common Stock acquired upon exercise of Purchase Rights are recorded in the books of the Company (or its transfer agent).

(c) The Plan and Offering do not constitute an employment contract. Nothing in the Plan or in the Offering shall in any way alter the at will nature of a Participant's employment or be deemed to create in any way whatsoever any obligation on the part of any Participant to continue in the employ of the Company or a Related Corporation, or on the part of the Company or a Related Corporation to continue the employment of a Participant.

(d) The provisions of the Plan shall be governed by the laws of the State of California without resort to that state's conflicts of laws rules.

15. Definitions.

As used in the Plan, the following definitions shall apply to the capitalized terms indicated below:

(a) ***"Board"*** means the Board of Directors of the Company.

(b) "***Capitalization Adjustment***" means any change that is made in, or other events that occur with respect to, the Common Stock subject to the Plan or subject to any Purchase Right after the Effective Date without the receipt of consideration by the Company (through merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or other similar transaction). Notwithstanding the foregoing, the conversion of any convertible securities of the Company shall not be treated as a Capitalization Adjustment.

(c) ***"Code"*** means the Internal Revenue Code of 1986, as amended.

(d) ***"Committee"*** means a committee of one (1) or more members of the Board to whom authority has been delegated by the Board in accordance with Section 2(c).

(e) ***"Common Stock"*** means the common stock of the Company.

(f) ***"Company"*** means Sunesis Pharmaceuticals, Inc., a Delaware corporation.

(g) ***"Contributions"*** means the payroll deductions and other additional payments specifically provided for in the Offering, that a Participant contributes to fund the exercise of a Purchase Right. A Participant may make additional payments into his or her account, if specifically provided for in the Offering, and then only if the Participant has not already had the maximum permitted amount withheld during the Offering through payroll deductions.

(h) ***"Corporate Transaction"*** means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) the consummation of a sale or other disposition of all or substantially all, as determined by the Board in its sole discretion, of the consolidated assets of the Company and its Subsidiaries;

(ii) the consummation of a sale or other disposition of at least ninety percent (90%) of the outstanding securities of the Company;

(iii) the consummation of a merger, consolidation or similar transaction following which the Company is not the surviving corporation; or

(iv) the consummation of a merger, consolidation or similar transaction following which the Company is the surviving corporation but the shares of Common Stock outstanding immediately preceding the merger, consolidation or similar transaction are converted or exchanged by virtue of the merger, consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

(i) ***"Director"*** means a member of the Board.

(j) ***"Eligible Employee"*** means an Employee who meets the requirements set forth in the Offering for eligibility to participate in the Offering, provided that such Employee also meets the requirements for eligibility to participate set forth in the Plan.

(k) ***"Employee"*** means any person, including Officers and Directors, who is employed for purposes of Section 423(b)(4) of the Code by the Company or a Related Corporation. However, service solely as a Director, or payment of a fee for such services, shall not cause a Director to be considered an "Employee" for purposes of the Plan.

(l) ***"Employee Stock Purchase Plan"*** means a plan that grants Purchase Rights intended to be options issued under an "employee stock purchase plan," as that term is defined in Section 423(b) of the Code.

(m) ***"Exchange Act"*** means the Securities Exchange Act of 1934, as amended.

(n) "***Fair Market Value***" means, as of any date, the value of the Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or traded on any established market, the Fair Market Value of a share of Common Stock shall be the closing sales price for such stock as quoted on such exchange or market (or the exchange or market with the greatest volume of trading in

the Common Stock) on the date of determination, as reported in such source as the Board deems reliable. Unless otherwise provided by the Board, if there is no closing sales price for the Common Stock on the date of determination, then the Fair Market Value shall be the closing sales price on the last preceding date for which such quotation exists.

(ii) In the absence of such markets for the Common Stock, the Fair Market Value shall be determined by the Board in good faith.

(o) ***"Offering"*** means the grant of Purchase Rights to purchase shares of Common Stock under the Plan to Eligible Employees.

(p) ***"Offering Date"*** means a date selected by the Board for an Offering to commence.

(q) "***Officer***" means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act and the rules and regulations promulgated thereunder.

(r) ***"Participant"*** means an Eligible Employee who holds an outstanding Purchase Right granted pursuant to the Plan.

(s) ***"Plan"*** means this Sunesis Pharmaceuticals, Inc. 2011 Employee Stock Purchase Plan.

(t) ***"Purchase Date"*** means one or more dates during an Offering established by the Board on which Purchase Rights shall be exercised and as of which purchases of shares of Common Stock shall be carried out in accordance with such Offering.

(u) ***"Purchase Period"*** means a period of time specified within an Offering beginning on the Offering Date or on the next day following a Purchase Date within an Offering and ending on a Purchase Date. An Offering may consist of one or more Purchase Periods.

(v) ***"Purchase Right"*** means an option to purchase shares of Common Stock granted pursuant to the Plan.

(w) ***"Related Corporation"*** means any "parent corporation" or "subsidiary corporation" of the Company whether now or subsequently established, as those terms are defined in Sections 424(e) and (f), respectively, of the Code.

(x) ***"Securities Act"*** means the Securities Act of 1933, as amended.

(y) "***Trading Day***" means any day on which the exchange(s) or market(s) on which shares of Common Stock are listed, including the NYSE, Nasdaq Global Select Market, the Nasdaq Global Market, or the Nasdaq Capital Market, is open for trading.

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

Form 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the Year Ended December 31, 2010
OR
☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission File Number 000-51531

SUNESIS PHARMACEUTICALS, INC.
(Exact name of registrant as specified in its charter)

Delaware	**94-3295878**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

395 Oyster Point Boulevard, Suite 400
South San Francisco, California 94080
(Address of principal executive offices, including zip code)

(650) 266-3500
(Registrant's telephone number, including area code)

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

Title of Each Class:	**Name of Each Exchange on Which Registered:**
Common Stock, par value $0.0001 per share	The NASDAQ Stock Market LLC

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

2010 Form 10-K

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

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

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

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☐ No ☐

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

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

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

The aggregate market value of common stock held by non-affiliates of the registrant, based on the closing sales price for such stock on June 30, 2010, as reported by The Nasdaq Stock Market, was $63,430,697. The calculation of the aggregate market value of voting and non-voting stock excludes 14,369,372 shares of the registrant's common stock held by current executive officers, directors and stockholders that the registrant has concluded are affiliates of the registrant. Exclusion of such shares should not be construed to indicate that any such person possesses the power, direct or indirect, to direct or cause the direction of the management or policies of the registrant or that such person is controlled by or under common control with the registrant.

The total number of shares outstanding of the registrant's common stock, $0.0001 par value per share, as of March 15, 2011, was 46,027,474.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Definitive Proxy Statement, to be filed with the Securities and Exchange Commission pursuant to Regulation 14A in connection with the 2011 Annual Meeting of Stockholders of Sunesis Pharmaceuticals, Inc. (hereinafter referred to as "Proxy Statement") are incorporated by reference in Part III of this report. Such Proxy Statement will be filed with the Securities and Exchange Commission not later than 120 days after the conclusion of the registrant's year ended December 31, 2010.

SUNESIS PHARMACEUTICALS, INC.

		Page No.
	PART I	
ITEM 1.	Business	3
ITEM 1A.	Risk Factors	17
ITEM 1B.	Unresolved Staff Comments	34
ITEM 2.	Properties	34
ITEM 3.	Legal Proceedings	34
ITEM 4.	(Removed and reserved)	34
	PART II	
ITEM 5.	Market For Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	35
ITEM 6.	Selected Financial Data	36
ITEM 7.	Management's Discussion and Analysis of Financial Condition and Results of Operations	38
ITEM 7A.	Quantitative and Qualitative Disclosures About Market Risk	48
ITEM 8.	Financial Statements and Supplementary Data	49
ITEM 9.	Changes in and Disagreements With Accountants on Accounting and Financial Disclosure	73
ITEM 9A.	Controls and Procedures	73
ITEM 9B.	Other Information	74
	PART III	
ITEM 10.	Directors, Executive Officers and Corporate Governance	75
ITEM 11.	Executive Compensation	75
ITEM 12.	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	75
ITEM 13.	Certain Relationships and Related Transactions, and Director Independence	76
ITEM 14.	Principal Accounting Fees and Services	76
	PART IV	
ITEM 15.	Exhibits, Financial Statement Schedules	77
	Signatures	78
	Exhibit Index	79

PART I

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This report, including the information we incorporate by reference, contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, that involve risks, uncertainties and assumptions. All statements, other than statements of historical facts, are "forward-looking statements" for purposes of these provisions, including without limitation any statements relating to our strategy, including our plans with respect to presenting clinical data and initiating clinical trials, our future research and development activities, including clinical testing and the costs and timing thereof, sufficiency of our cash resources, our ability to raise additional funding when needed, any statements concerning anticipated regulatory activities or licensing or collaborative arrangements, our research and development and other expenses, our operations and legal risks, and any statement of assumptions underlying any of the foregoing. In some cases, forward-looking statements can be identified by the use of terminology such as "anticipates," "believe," "continue," "estimates," "expects," "intend," "look forward," "may," "could," "seeks," "plans," "potential," or "will" or the negative thereof or other comparable terminology. Although we believe that the expectations reflected in the forward-looking statements contained herein are reasonable, there can be no assurance that such expectations or any of the forward-looking statements will prove to be correct, and actual results could differ materially from those projected or assumed in the forward-looking statements. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of many factors, including but not limited to those set forth under "Risk Factors," and elsewhere in this report. We urge you not to place undue reliance on these forward-looking statements, which speak only as of the date of this report. All forward-looking statements included in this report are based on information available to us on the date of this report, and we assume no obligation to update any forward-looking statements contained in this report.

In this report, "Sunesis," the "Company," "we," "us," and "our" refer to Sunesis Pharmaceuticals, Inc. and its wholly owned subsidiary, Sunesis Europe Limited, except where it is made clear that the term refers only to the parent company.

ITEM 1. *BUSINESS*

General

We are a biopharmaceutical company focused on the development and commercialization of new oncology therapeutics for the treatment of hematologic and solid tumor cancers. Our efforts are currently focused primarily on the development of vosaroxin (formerly voreloxin) for the treatment of acute myeloid leukemia, or AML. We have built a highly experienced cancer drug development organization committed to advancing our lead product candidate, vosaroxin, in multiple indications to improve the lives of people with cancer.

Vosaroxin is a first-in-class anti-cancer quinolone derivative, or AQD—a class of compounds that has not been used previously for the treatment of cancer. Quinolone derivatives have been shown to mediate anti-tumor activity by targeting mammalian topoisomerase II, an enzyme critical for cell replication. We own the worldwide development and commercialization rights to vosaroxin.

In December 2010, we commenced enrollment of a Phase 3, multi-national, randomized, double-blind, placebo-controlled, pivotal trial of vosaroxin in combination with cytarabine in patients with relapsed or refractory AML, or the VALOR trial. The VALOR trial is designed to evaluate the effect of vosaroxin in combination with cytarabine, a widely used chemotherapy in AML, on overall survival as compared to placebo in combination with cytarabine. The trial design is based on data from our Phase 2 clinical trial of vosaroxin in combination with cytarabine in first relapsed or primary refractory AML, together with guidance received from both U.S. and European regulatory agencies.

With an anticipated 450 evaluable patients, the trial is designed to have a 90% probability of detecting a 40% difference in overall survival. The trial includes a single pre-specified interim analysis by the independent Data Safety Monitoring Board, or DSMB, that may recommend a one-time sample size adjustment of 225 additional evaluable patients if deemed beneficial by the DSMB to maintain adequate power across a range of clinically meaningful and statistically significant survival outcomes. In February 2011, the FDA granted fast track designation to vosaroxin for the potential treatment of relapsed or refractory AML in combination with cytarabine.

We are also in the survival follow-up stage of two fully-enrolled clinical trials of vosaroxin: (a) the Phase 2 portion of a Phase 1b/2 trial of vosaroxin in combination with cytarabine for the treatment of patients with first relapsed or primary refractory AML, and (b) a Phase 2 trial (known as REVEAL-1) in previously untreated elderly patients with AML, which explored three different dose schedules. In addition, we completed a Phase 2 single agent trial of vosaroxin in platinum-resistant ovarian cancer patients in 2010, which explored three different dose cohorts. The most recent data from the AML studies were presented at the Chemotherapy Foundation Symposium XXVIII in November 2010, and the most recent data from the ovarian cancer study were presented at the American Society of Clinical Oncology 2010 Annual Meeting in June 2010.

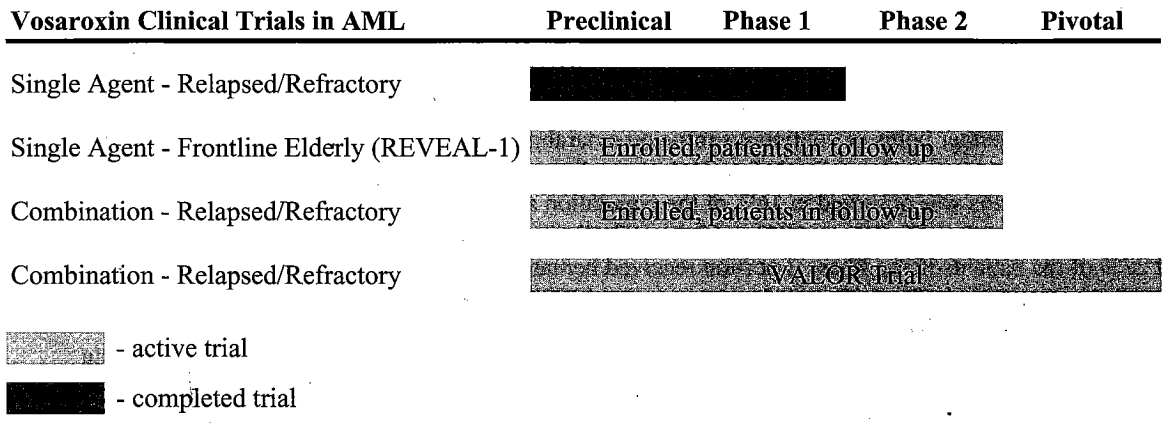
In 2009, the U.S. Food and Drug Administration, or FDA, granted orphan drug designation to vosaroxin for the treatment of AML. In July 2010, we announced that the European Patent Office, or EPO, had granted us a patent covering combinations of vosaroxin with cytarabine. The patent provides coverage to 2025 for such combination products in 30 member states of the European Patent Convention. In November 2010, we announced that the U.S. Patent and Trademark Office had granted us a patent covering pharmaceutical compositions of vosaroxin, and in March 2011, we announced that the EPO had granted us a similar patent, which we are proceeding to validate in multiple EPO member states. These patents cover the formulation used in our VALOR trial and extend vosaroxin's patent life to 2025. Related patent applications are pending in other major markets throughout the world, including Japan, Australia and Canada.

Vosaroxin

Vosaroxin is a first-in-class AQD—a class of compounds that has not been used previously for the treatment of cancer. Quinolone derivatives have been shown to mediate anti-tumor activity by targeting mammalian topoisomerase II, an enzyme critical for cell replication. Vosaroxin acts by DNA intercalation and inhibition of topoisomerase II in replicating cancer cells. The resulting site-selective DNA damage rapidly causes the cancer cells to stop dividing and die. In preclinical studies, vosaroxin demonstrated broad anti-tumor activity and appears to exhibit additive or synergistic activity when combined with several therapeutic agents currently used in the treatment of cancer, including cytarabine. Clinical activity is observed in both solid and hematologic malignancies. We licensed worldwide development and commercialization rights to vosaroxin from Dainippon Sumitomo Pharma Co., Ltd. in 2003.

Acute Myeloid Leukemia

The following chart summarizes the status of clinical trials in AML that have been conducted or are currently being conducted with vosaroxin:



Since 2004, we have initiated eight clinical trials with vosaroxin. A Phase 1 clinical trial was conducted to evaluate two dosing schedules of vosaroxin in patients with advanced solid tumors. A further Phase 1 clinical trial was conducted to evaluate doses and schedules of administration of vosaroxin in patients with relapsed/ refractory acute leukemia. We also conducted two Phase 2 studies in non-small cell lung cancer and small cell lung cancer. Partial responses were observed in both lung cancer studies, but it was determined that vosaroxin could be dosed with greater intensity given the low incidence of grade 3/4 neutropenia (15% or less). Thus, the studies were halted and we may consider future vosaroxin studies in lung cancer or in other solid tumors and hematologic malignancies.

In December 2010, we commenced enrollment of the VALOR trial, a Phase 3, randomized, double-blind, placebo-controlled, pivotal clinical trial of vosaroxin in combination with cytarabine in patients with relapsed or refractory AML. The VALOR trial is designed to evaluate the effect of vosaroxin in combination with cytarabine, a widely used chemotherapy in AML, on overall survival as compared to placebo in combination with cytarabine. The trial design is based on data from our Phase 2 clinical trial of vosaroxin in combination with cytarabine in first relapsed or primary refractory AML, together with guidance received from both U.S. and European regulatory agencies. The trial is expected to enroll 450 evaluable patients at approximately 100 leading sites in the U.S., Canada, Europe, Australia and New Zealand, and is designed to have a 90% probability of detecting a 40% difference in overall survival. The trial includes a single pre-specified interim analysis by the independent DSMB, which may recommend a one-time sample size adjustment of 225 additional evaluable patients if deemed beneficial by the DSMB to maintain adequate power across a range of clinically meaningful and statistically significant survival outcomes.

In January 2010, we completed enrollment in the Phase 2 portion of a Phase 1b/2 clinical trial of vosaroxin in combination with cytarabine for the treatment of patients with relapsed/refractory AML. The trial is designed to evaluate the safety, pharmacokinetics and anti-leukemic activity of escalating doses of vosaroxin when administered in combination with cytarabine given either as continuous infusion or as a two hour IV infusion. A total of 69 patients were evaluable for efficacy outcomes in the expansion Phase 2 populations of the trial, which includes primary refractory and first relapsed AML patients. Among evaluable first relapsed (n=36) and primary refractory patients (n=33), median overall survival was 7.1 months and the combined complete remission rate (including complete remissions, or CR, complete remissions without full platelet recovery, or CRp, and complete remissions with incomplete recovery, or CRi) was 29%, with a CR rate of 25%. Vosaroxin in combination with either bolus,or continuous infusion cytarabine was generally well-tolerated. Infection-related toxicities were the most common Grade 3 or higher non-hematologic adverse events. In addition, Grade 3 or higher oral mucositis was observed in 16% of the population and was manageable. All-cause mortality among these patients was 3% at 30 days and 9% at 60 days. Preliminary median leukemia-free survival is 14.4 months and 22% of the patients in the Phase 2 portion received hematopoietic stem cell transplants. This data was presented at the Chemotherapy Foundation Symposium XXVIII in November 2010.

In October 2009, we completed enrollment in a Phase 2 single agent clinical trial of vosaroxin in previously untreated elderly AML patients. The trial includes three dosing schedules: Schedule A, once weekly for three weeks (n=29); Schedule B, once weekly for two weeks (n=35); and Schedule C, on days one and four at either 72 mg/m^2 (n=29) or 90 mg/m^2 (n=20). Median survival was 8.6 months in Schedule A, 5.7 months in Schedule B, and 7.7 months in Schedule C (72 mg/m^2). One year survival was 38% for Schedule A, 32% in Schedule B, and 38% in Schedule C (72 mg/m^2). Based on trial results, Schedule C (72 mg/m^2) was determined to be the recommended pivotal dose regimen. For Schedule C, the CR plus CRp rate was 38%; 30-day all-cause mortality was 7%. This data was presented at the Chemotherapy Foundation Symposium XXVIII in November 2010.

Ovarian Cancer

In mid-2010, we completed a Phase 2 single agent trial of vosaroxin in platinum-resistant ovarian cancer. Three dose cohorts of vosaroxin were studied: Cohort A, 48 mg/m^2 given every three weeks (n=65), Cohort B, 60 mg/m^2 given every four weeks (n=37) and Cohort C, 75 mg/m^2 given every four weeks (n=35). Data from this trial show encouraging durable anti-tumor activity across all three dose cohorts. The overall response rate, or ORR, was 11% for Cohorts A and B, and 9% for Cohort C. Disease control, defined as an objective response or stable disease for 12 weeks or more, was similar across the cohorts: 48% for Cohort A, 54% for Cohort B, and 57% for Cohort C. The median progression free survival, or PFS, for Cohort A was 83 days, for Cohort B was 85 days, and for cohort C was 110 days. Overall PFS was longer in Cohort C as compared to Cohorts A and B, suggesting a benefit to higher vosaroxin doses; however, this cohort had a higher incidence of febrile neutropenia (29%) than Cohorts A (9%) or B (5%). Based on activity and tolerability, the dose/schedule represented by Cohort B was selected for future consideration. Four partial responses were achieved in the 44 women who were Doxil® failures, for an ORR of 9%, and 66% achieved disease control. The median PFS in these Doxil® failure patients was 91 days. PFS was not statistically different from those who had not failed Doxil®. Overall, the adverse event profile was similar across cohorts and vosaroxin was generally well-tolerated. Grade 3 or higher adverse events occurring in more than 10% of patients included neutropenia, febrile neutropenia, fatigue, and anemia. This data was presented at the American Society of Clinical Oncology 2010 Annual Meeting in June 2010.

Dainippon Sumitomo Pharma Co., Ltd. Licensing Agreement

In October 2003, we entered into an agreement with Dainippon Sumitomo Pharma Co., Ltd., or Dainippon, to acquire exclusive worldwide development and marketing rights for our lead anti-cancer product candidate, vosaroxin. In January 2011, we made a $0.5 million milestone payment to Dainippon as a result of the initiation of our VALOR trial in December 2010. In the future we may be required to make additional milestone payments of up to $7.0 million to Dainippon, for (a) filing new drug applications, or NDAs, in the United States,

Europe and Japan, and (b) for receiving regulatory approvals in these regions, for cancer-related indications. If vosaroxin is approved for a non-cancer indication, an additional milestone payment becomes payable to Dainippon.

The agreement also provides for royalty payments to Dainippon at rates that are based on total annual net sales. Under the agreement, we may reduce our royalty payments to Dainippon if a third party markets a competitive product and we must pay royalties for third-party intellectual property rights necessary to commercialize vosaroxin. Royalty obligations under the agreement continue on a country-by-country and product-by-product basis until the later of the date on which no valid patent claims relating to a product exist or 10 years from the date of the first sale of the product.

If we discontinue seeking regulatory approval and/or the sale of the product in a region, we are required to return to Dainippon its rights to the product in that region. The agreement may be terminated by either party for the other party's uncured breach or bankruptcy.

Strategic Collaborations

Overview

Over the past three years, we have generated revenue primarily through collaborations with Biogen Idec, Johnson & Johnson Pharmaceutical Research & Development LLC, or J&JPRD, and Merck & Co., Inc., or Merck, consisting principally of research funding and milestones paid by our collaborators, which substantially offset the related research and development expenses. Our collaborations with J&JPRD and Merck terminated in January 2010 and June 2010, respectively. From January 1, 2008 to December 31, 2010, we recorded an aggregate of $6.5 million in revenues from our collaboration partners. In 2008 and 2009, we received $4.3 million and $1.5 million, respectively, from Biogen Idec, which represented 80% and 40% of our total revenues for these periods. In 2010, we recorded no revenue related to Biogen Idec.

Biogen Idec

In August 2004, we entered into a collaboration agreement with Biogen Idec to discover, develop and commercialize small molecule inhibitors of Raf kinase and up to five additional targets that play a role in oncology and immunology indications or in the regulation of the human immune system. Concurrent with the signing of the agreement, Biogen Idec paid a $7.0 million upfront technology access fee and made a $14.0 million equity investment in Sunesis through the purchase of our Series C-2 preferred stock, which converted into common stock upon our initial public offering in September 2005.

Pursuant to the terms of the collaboration agreement, we applied our fragment-based drug discovery technology, Tethering, to generate small molecule leads during the research term, for which we received research funding, which was paid in advance to support some of our scientific personnel. In connection with our June 2008 restructuring, the parties agreed to terminate the research term and related funding as of June 30, 2008. A total of $20.0 million of research funding was received through this date. We have received a total of $3.0 million in milestone payments for meeting certain preclinical milestones through December 31, 2010, including a $1.5 million milestone received in cash in July 2009 for Biogen Idec's selection of a Raf kinase inhibitor development candidate for the treatment of cancer.

We may in the future receive pre-commercialization milestone payments of up to $60.5 million per target, as well as royalty payments depending on product sales. Potential total royalty payments may be increased if we exercise our option to co-develop and co-promote product candidates for up to two targets worldwide (excluding Japan) and may be reduced if Biogen Idec is required to in-license additional intellectual property related to certain technology jointly developed under the collaboration agreement in order to commercialize a collaboration product.

In November 2010, Biogen Idec announced that it will seek to spin out or outlicense certain oncology assets, including programs under this collaboration agreement. We cannot predict the outcome of this strategic decision by Biogen Idec or its impact on future development activity under the collaboration agreement or on our prospects for the receipt of milestone or royalty payments under the collaboration agreement. We expect that a Phase 1 clinical trial will be initiated in 2011 for the Raf kinase inhibitor program.

Manufacturing

We do not have internal manufacturing capabilities for the production of clinical or commercial quantities of vosaroxin. To date, we have relied on, and we expect to continue to rely on, a limited number of third-party contract manufacturers for the production of clinical and commercial quantities of the vosaroxin active pharmaceutical ingredient, or API, the finished drug product incorporating the API, or FDP, and the placebo used in the VALOR trial. We do not have commercial supply agreements with any of these third parties, and our agreements with these parties may include provisions that allow for termination at will by either party following a relatively short notice period.

We currently rely on two contract manufacturers for the vosaroxin API, which is manufactured through a multi-step convergent synthesis in which two intermediates are manufactured in a parallel process and then combined and de-protected in the final two steps. We recently started working with the second vosaroxin API manufacturer, and to date no vosaroxin FDP has been formulated from the vosaroxin API supplied by this second manufacturer. We also currently rely on a single contract manufacturer to formulate the vosaroxin API and fill and finish vials of the vosaroxin FDP.

Because the vosaroxin API is classified as a cytotoxic substance, the number of available manufacturers for the API and FDP is limited. We believe that there are at least five contract manufacturers with suitable facilities in North America to manufacture the vosaroxin API, and at least four with suitable facilities for the manufacture of vosaroxin FDP. There are also a number of manufacturers with suitable facilities outside of North America, including one of our vosaroxin API manufacturers. If we are unable to obtain sufficient quantities of the vosaroxin API and FDP from our current manufacturers, it may take time to engage alternative manufacturers, which could delay the development of and impair our ability to commercialize vosaroxin.

To date, vosaroxin has been manufactured in quantities appropriate for preclinical studies and clinical trials. New lots of vosaroxin API and FDP will need to be manufactured and released to support our current and planned clinical activities, including the VALOR trial and stability assessments required for regulatory approval. Prior to being approved for commercial sale, we will seek to arrange for the manufacture of vosaroxin API and FDP in larger quantities. Any significant scale-up of manufacturing will be accompanied by process validation studies, which are required to be reviewed by the FDA prior to regulatory approval.

In addition, the cytarabine used in our VALOR trial is procured from third party distributors. Cytarabine is currently in short supply, but to date we have been able to procure necessary supplies to support our VALOR trial. Additional procurement of cytarabine will be necessary to complete the VALOR trial.

Competition

We face significant competition from many pharmaceutical, biopharmaceutical and biotechnology companies that are researching, developing and marketing products designed to address the treatment of cancer, including AML. Many of our competitors have significantly greater financial, manufacturing, marketing and drug-development resources than we do. Large pharmaceutical companies in particular have extensive experience in the clinical testing of, obtaining regulatory approvals for, and marketing drugs.

Vosaroxin is a small molecule therapeutic that will compete with other drugs and therapies that currently exist or are being developed for the treatment of cancer. Some of the current key competitors to vosaroxin in

AML include Genzyme Corporation's clofarabine and Celgene Corporation's azacitidine. We expect competition for vosaroxin for the treatment of AML to increase as additional products are developed and approved in various patient populations.

We believe that our ability to successfully compete in the marketplace with vosaroxin and any future product candidates, if any, will depend on, among other things:

- our ability to develop novel compounds with attractive pharmaceutical properties and to secure, protect and maintain intellectual property rights based on our innovations;
- the efficacy, safety and reliability of our product candidates;
- the speed at which we develop our product candidates;
- our ability to design and successfully execute appropriate clinical trials;
- our ability to maintain a good relationship with regulatory authorities;
- our ability to obtain, and the timing and scope of, regulatory approvals;
- our ability to manufacture and sell commercial quantities of future products to the market; and
- acceptance of future products by physicians and other healthcare providers.

Intellectual Property

We believe that patent protection is crucial to our business and that our future success depends in part on our ability to obtain patents protecting vosaroxin or future drug candidates, if any. Historically we have patented a wide range of technology, inventions and improvements related to our business, but which we are no longer actively developing.

The vosaroxin composition of matter is covered by U.S. patent 5,817,669 and its counterpart patents in 43 foreign jurisdictions. U.S. patent 5,817,669 is due to expire in October 2015, and most of its foreign counterparts are due to expire in June 2015. In July 2010, we announced that the European Patent Office, or EPO, had granted us a patent covering combinations of vosaroxin with cytarabine. The patent was validated and provides coverage for such combination products in 30 member states of the European Patent Convention and is due to expire in 2025. In November 2010, we announced that the U.S. Patent and Trademark Office granted us a patent covering certain pharmaceutical compositions of vosaroxin, and in March 2011, we announced that the EPO had granted us a similar patent, which we are proceeding to validate in multiple EPO member states. These patents cover the formulation used in our VALOR trial and are due to expire in 2025. Related patent applications are pending in other major markets throughout the world, including Japan, Australia and Canada.

As of December 31, 2010, approximately 76 U.S. and foreign applications pertaining to vosaroxin and compositions and uses thereof were pending. When appropriate, we intend to seek patent term restoration, orphan drug status and/or data exclusivity in the United States and their equivalents in other relevant jurisdictions, to the maximum extent that the respective laws will permit at such time. In 2009, the FDA granted orphan drug designation to vosaroxin for the treatment of AML.

Our ability to build and maintain our proprietary position for vosaroxin and any future drug candidates, if any, will depend on our success in obtaining effective claims and enforcing those claims if granted. The patent positions of biopharmaceutical companies like ours are generally uncertain and involve complex legal and factual questions for which some important legal principles remain unresolved. No consistent policy regarding the

2010 Form 10-K

breadth of patent claims has emerged to date in the United States. The patent situation outside the United States is even more uncertain. We do not know whether any of our patent applications or those patent applications that we license will result in the issuance of any patents. Even if patents are issued, they may not be sufficient to protect vosaroxin or future drug candidates, if any. The patents we own or license and those that may issue in the future may be opposed, challenged, invalidated or circumvented, and the rights granted under any issued patents may not provide us with proprietary protection or competitive advantages.

Patent applications filed before November 29, 2000 in the United States are maintained in secrecy until patents issue. Later filed U.S. applications and patent applications in most foreign countries generally are not published until at least 18 months after their earliest filing date. Scientific and patent publication often occurs long after the date of the scientific discoveries disclosed in those publications. Accordingly, we cannot be certain that we were the first to invent the subject matter covered by any patent application or that we were the first to file a patent application for any inventions.

Our commercial success depends on our ability to operate without infringing patents and proprietary rights of third parties. We cannot determine with certainty whether patents or patent applications of other parties may materially affect our ability to conduct our business. The existence of third party patent applications and patents could significantly reduce the coverage of patents owned by or licensed to us and limit our ability to obtain meaningful patent protection. If patents containing competitive or conflicting claims are issued to third parties and these claims are ultimately determined to be valid, we may be enjoined from pursuing research, development or commercialization of vosaroxin or future drug candidates, if any, or be required to obtain licenses to such patents or to develop or obtain alternative technology.

We may need to commence or defend litigation to enforce or to determine the scope and validity of any patents issued to us or to determine the scope and validity of third party proprietary rights. Litigation would result in substantial costs, even if the eventual outcome is favorable to us. An adverse outcome in litigation affecting proprietary rights we own or have licensed could present significant risk of competition for vosaroxin or future drug candidates, if any, that we market or seek to develop. Any adverse outcome in litigation affecting third party proprietary rights could subject us to significant liabilities to third parties and could require us to seek licenses of the disputed rights from third parties or to cease using the technology if such licenses are unavailable.

We also rely on trade secrets to protect our technology, especially in situations or jurisdictions in which we believe patent protection may not be appropriate or obtainable. However, trade secrets are difficult to maintain and do not protect technology against independent developments made by third parties.

We seek to protect our proprietary information by requiring our employees, consultants, contractors and other advisers to execute nondisclosure and assignment of invention agreements upon commencement of their employment or engagement. Agreements with our employees also prevent them from bringing the proprietary rights of third parties to us. We also require confidentiality or material transfer agreements from third parties that receive our confidential data or materials. There can be no assurance that these agreements will provide meaningful protection, that these agreements will not be breached, that we will have an adequate remedy for any such breach, or that our trade secrets will not otherwise become known or independently developed by a third party.

We seek to protect our company name and the names of our products and technologies by obtaining trademark registrations, as well as common law rights in trademarks and service marks, in the United States and in other countries. There can be no assurance that the trademarks or service marks we use or register will protect our company name or any products or technologies that we develop and commercialize, that our trademarks, service marks, or trademark registrations will be enforceable against third parties, or that our trademarks and service marks will not interfere with or infringe trademark rights of third parties. We may need to commence litigation to enforce our trademarks and service marks or to determine the scope and validity of our or a third party's trademark rights. Litigation would result in substantial costs, even if the eventual outcome is favorable to

us. An adverse outcome in litigation could subject us to significant liabilities to third parties and require us to seek licenses of the disputed rights from third parties or to cease using the trademarks or service marks if such licenses are unavailable.

Government Regulation

The FDA and comparable regulatory agencies in state and local jurisdictions and in foreign countries impose substantial requirements upon the clinical development, manufacture, marketing and distribution of drugs. These agencies and other federal, state and local entities regulate research and development activities and the testing, manufacture, quality control, safety, efficacy, labeling, storage, recordkeeping, approval, advertising and promotion of vosaroxin and any future drug candidates we may develop, if any. The application of these regulatory frameworks to the development, approval and commercialization of vosaroxin or our future drug candidates, if any, will take a number of years to accomplish, if at all, and involve the expenditure of substantial resources.

In the United States, the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act, as amended, and implementing regulations. The process required by the FDA before vosaroxin and any future drug candidates may be marketed in the United States generally involves the following:

- completion of extensive preclinical laboratory tests, *in vivo* preclinical studies and formulation studies;
- submission to the FDA of an Investigational New Drug, or IND, application, which must become effective before clinical trials begin;
- performance of adequate and well-controlled clinical trials to establish the safety and efficacy of the product candidate for each proposed indication;
- submission of an NDA to the FDA;
- satisfactory completion of an FDA pre-approval inspection of the manufacturing facilities at which the product candidate is produced to assess compliance with current Good Manufacturing Practice, or cGMP, regulations; and
- FDA review and approval of the NDA, including proposed labeling (package insert information) and promotional materials, prior to any commercial marketing, sale or shipment of the drug.

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

The United States Orphan Drug Act promotes the development of products that demonstrate promise for the diagnosis and treatment of diseases or conditions that affect fewer than 200,000 people in the United States. Upon FDA receipt of Orphan Drug Designation, the sponsor is eligible for tax credits of up to 50% for qualified clinical trial expenses, the ability to apply for annual grant funding, waiver of Prescription Drug User Fee Act (PDUFA) application fee, and upon approval, the potential for seven years of market exclusivity for the orphan-designated product for the orphan-designated indication.

Preclinical Testing and INDs

Preclinical tests include laboratory evaluation of product chemistry, formulation and stability, as well as studies to evaluate toxicity in animals. Laboratories that comply with the FDA Good Laboratory Practice regulations must conduct preclinical safety tests. The results of preclinical tests, together with manufacturing

2010 Form 10-K

information and analytical data, are submitted as part of an IND application to the FDA. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA, within the 30-day time period, raises concerns or questions about the conduct of the clinical trial, including concerns that human research subjects will be exposed to unreasonable health risks. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. Our submission of an IND, or those submitted by Biogen Idec or our potential future collaboration partners, if any, may not result in FDA authorization to commence a clinical trial.

Clinical Trials

Clinical trials involve the administration of an IND to healthy volunteers or to patients under the supervision of a qualified principal investigator. Clinical trials are conducted in accordance with the FDA's Protection of Human Subjects regulations and Good Clinical Practices, or GCP, under protocols that detail the objectives of the study, the parameters to be used to monitor safety, and the efficacy criteria to be evaluated. Each protocol must be submitted to the FDA as part of the IND application.

In addition, each clinical study must be conducted under the auspices of an independent institutional review board, or IRB, at each institution where the study will be conducted. Each IRB will consider, among other things, ethical factors, the safety of human subjects and the possible liability of the institution. The FDA, an IRB or the sponsor may suspend a clinical trial at any time on various grounds, including a finding that the subjects or patients are being exposed to an unacceptable health risk. Clinical testing also must satisfy extensive GCP requirements and regulations for informed consent.

Clinical trials are typically conducted in three sequential phases, which may overlap, sometimes followed by a fourth phase:

- *Phase 1 clinical trials* are initially conducted in a limited population to test the drug candidate for safety (adverse effects), dose tolerance, absorption, metabolism, distribution and excretion in healthy humans or, on occasion, in patients, such as cancer patients. In some cases, particularly in cancer trials, a sponsor may decide to conduct what is referred to as a "Phase 1b" evaluation, which is a second safety-focused Phase 1 clinical trial typically designed to evaluate the impact of the drug candidate in combination with currently approved drugs.

- *Phase 2 clinical trials* are generally conducted in a limited patient population to identify possible adverse effects and safety risks, to determine the efficacy of the drug candidate for specific targeted indications and to determine dose tolerance and optimal dosage. Multiple Phase 2 clinical trials may be conducted by the sponsor to obtain information prior to beginning larger and more expensive Phase 3 clinical trials. In some cases, a sponsor may decide to conduct what is referred to as a "Phase 2b" evaluation, which is a second, confirmatory Phase 2 clinical trial that could, if positive and accepted by the FDA, serve as a pivotal clinical trial in the approval of a drug candidate.

- *Phase 3 clinical trials* are commonly referred to as pivotal trials. When Phase 2 clinical trials demonstrate that a drug candidate has potential activity in a disease or condition and has an acceptable safety profile, Phase 3 clinical trials are undertaken to further evaluate clinical efficacy and to further test for safety in an expanded patient population at multiple, geographically dispersed clinical trial sites.

- *Phase 4 (post-marketing) clinical trials* may be required by the FDA in some cases. The FDA may condition approval of an NDA for a drug candidate on a sponsor's agreement to conduct additional clinical trials to further assess the drug's safety and efficacy after NDA approval. Such post-approval trials are typically referred to as Phase 4 clinical trials.

New Drug Applications

The testing and approval processes are likely to require substantial cost, time and effort, and there can be no assurance that any approval will be granted on a timely basis, if at all. The FDA may withdraw product approvals if compliance with regulatory standards is not maintained or if problems occur following initial marketing.

The results of development, preclinical testing and clinical trials, together with extensive manufacturing information and a substantial user fee, are submitted to the FDA as part of an NDA for approval of the marketing and commercial distribution of the drug. The review process routinely takes 10 months but is often significantly extended by FDA requests for additional information or clarification. The FDA may refer the NDA to an advisory committee for review, evaluation and recommendation as to whether the application should be approved. The FDA is not bound by the recommendation of an advisory committee, but it generally follows such recommendations. The FDA may deny approval of an NDA if the applicable regulatory criteria are not satisfied, or it may require additional clinical testing. Even if data from such testing are obtained and submitted, the FDA may ultimately decide that the NDA does not satisfy the criteria for approval. Data from clinical trials are not always conclusive and the FDA may interpret data differently than we or Biogen Idec, or our potential future collaboration partners, if any, interpret data. If regulatory approval is granted, such approval may entail limitations on the indicated uses for which the product may be marketed.

Once issued, the FDA may withdraw drug approval if ongoing regulatory requirements are not met or if safety problems occur after the drug reaches the market. In addition, the FDA may require testing, including Phase 4 clinical trials, and surveillance programs to monitor the effect of approved products that have been commercialized, and the FDA has the power to prevent or limit further marketing of a drug based on the results of these post-marketing programs. Drugs may be marketed only for approved indications and in accordance with the provisions of the approved label. Further, if there are any modifications to the drug, including changes in indications, labeling, or manufacturing processes or facilities, we may be required to submit and obtain FDA approval of a new NDA or NDA supplement, which may require us to develop additional data or conduct additional preclinical studies and clinical trials.

2010 Form 10-K

Fast Track Designation

FDA's fast track program is intended to facilitate the development, and to expedite the review, of drugs that are intended for the treatment of a serious or life-threatening condition for which there is no effective treatment and demonstrate the potential to address unmet medical needs for the condition.

With fast track designation, the FDA may initiate review of sections of an NDA before the application is complete. This rolling review is available if the applicant provides and the FDA approves a schedule for the submission of the remaining information and the applicant pays applicable user fees. However, the time period specified in the Prescription Drug User Fees Act, which governs the time period goals the FDA has committed to reviewing an application, does not begin until the complete application is submitted. Additionally, the fast track designation may be withdrawn by the FDA if the FDA believes that the designation is no longer supported by data emerging in the clinical trial process.

In some cases, a fast track designated drug candidate may also qualify for one or more of the following programs:

- *Priority Review.* Under FDA policies, a drug candidate is eligible for priority review, or review within six-months from the time a complete NDA is accepted for filing, if the drug candidate provides a significant improvement compared to marketed drugs in the treatment, diagnosis or prevention of a disease. A fast track designated drug candidate would ordinarily meet the FDA's criteria for priority review.

- *Accelerated Approval.* Under the FDA's accelerated approval regulations, the FDA is authorized to approve drug candidates that have been studied for their safety and efficacy in treating serious or life-threatening illnesses and that provide meaningful therapeutic benefit to patients over existing treatments based upon either a surrogate endpoint that is reasonably likely to predict clinical benefit or on the basis of an effect on a clinical endpoint other than patient survival. In clinical trials, surrogate endpoints are alternative measurements of the symptoms of a disease or condition that are substituted for measurements of observable clinical symptoms. A drug candidate approved on this basis is subject to rigorous post-marketing compliance requirements, including the completion of Phase 4 clinical trials to validate the surrogate endpoint or confirm the effect on the clinical endpoint. Failure to conduct required post-approval studies, or to validate a surrogate endpoint or confirm a clinical benefit during post-marketing studies, will allow the FDA to withdraw the drug from the market on an expedited basis. All promotional materials for drug candidates approved under accelerated regulations are subject to prior review by the FDA.

In February 2011, the FDA granted fast track designation to vosaroxin for the potential treatment of relapsed or refractory AML in combination with cytarabine. We do not know whether vosaroxin or our future drug candidates, if any, will receive a priority review designation or, if a priority designation is received, whether that review or approval will be faster than conventional FDA procedures. We also cannot predict whether vosaroxin or our future drug candidates, if any, will obtain accelerated approval or priority review, or the ultimate impact, if any, of the fast track or the accelerated approval process on the timing or likelihood of FDA approval of vosaroxin or our future drug candidates, if any.

Satisfaction of FDA regulations and approval requirements or similar requirements of foreign regulatory agencies typically takes several years, and the actual time required may vary substantially based upon the type, complexity and novelty of the product or disease. Typically, if a drug candidate is intended to treat a chronic disease, as is the case with vosaroxin, safety and efficacy data must be gathered over an extended period of time. Government regulation may delay or prevent marketing of drug candidates for a considerable period of time and impose costly procedures upon our activities. The FDA or any other regulatory agency may not grant approvals for new indications for our drug candidates on a timely basis, or at all. Even if a drug candidate receives regulatory approval, the approval may be significantly limited to specific disease states, patient populations and dosages. Further, even after regulatory approval is obtained, later discovery of previously unknown problems with a drug may result in restrictions on the drug or even complete withdrawal of the drug from the market. Delays in obtaining, or failures to obtain, regulatory approvals for any of our drug candidates would harm our business. In addition, we cannot predict what adverse governmental regulations may arise from future U.S. or foreign governmental action.

Other Regulatory Requirements

Any drugs manufactured or distributed by us or Biogen Idec, or our potential future collaboration partners, if any, pursuant to FDA approvals are subject to continuing regulation by the FDA, including recordkeeping requirements and reporting of adverse experiences associated with the drug. Drug manufacturers and their subcontractors are required to register with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with ongoing regulatory requirements, including cGMPs, which impose certain procedural and documentation requirements upon us and our third-party manufacturers. Failure to comply with the statutory and regulatory requirements can subject a manufacturer to possible legal or regulatory action, such as warning letters, suspension of manufacturing, seizure of product, injunctive action or possible civil penalties.

The FDA closely regulates the post-approval marketing and promotion of drugs, including standards and regulations for direct-to-consumer advertising, off-label promotion, industry-sponsored scientific and educational activities and promotional activities involving the Internet. A company can make only those claims relating to safety and efficacy that are approved by the FDA. Failure to comply with these requirements can result in

adverse publicity, warning letters, corrective advertising and potential civil and criminal penalties. Physicians may prescribe legally available drugs for uses that are not described in the drug's labeling and that differ from those tested by us and approved by the FDA. Such off-label uses are common across medical specialties, including cancer therapy. Physicians may believe that such off-label uses are the best treatment for many patients in varied circumstances. The FDA does not regulate the behavior of physicians in their choice of treatments. The FDA does, however, impose stringent restrictions on manufacturers' communications regarding off-label use.

Foreign Regulation

In addition to regulations in the United States, we are subject to foreign regulations governing clinical trials and commercial sales and distribution of vosaroxin or our future drug candidates, if any. Our VALOR trial is expected to enroll patients in Europe, Canada, Australia and New Zealand. We may in the future initiate clinical trials in other countries throughout the world. 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 trials 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 trials, product licensing, pricing and reimbursement vary greatly from country to country.

Under European Union regulatory systems, permission to conduct clinical research is granted by the Competent Authority of each European Member State, or MS, and the applicable Ethics Committees, or EC, through the submission of a Clinical Trial Application. An EC in the European Union serves the same function as an IRB in the United States. The review times vary by MS but may not exceed 60 days. The EC has a maximum of 60 days to give its opinion on the acceptability of the Clinical Trial Application to both the governing MS and the sponsor applicant. If the application is deemed acceptable, the MS informs the applicant (or does not within the 60 day window inform the applicant of non-acceptance) and the company may proceed with the clinical trial.

Under the European Union regulatory systems, marketing authorizations may be submitted either under a centralized or mutual recognition procedure. The centralized procedure provides for the grant of a single marketing authorization that is valid for all European Union member states. The mutual recognition procedure provides for mutual recognition of national approval decisions. Under this procedure, the holder of a national marketing authorization may submit an application to the remaining member states. Within 90 days of receiving the application and assessment report, each member state must decide whether to recognize approval.

Under the Canadian regulatory system, Health Canada is the regulatory body that governs the sale of drugs for the purposes of use in clinical trials. Accordingly, any company that wishes to conduct a clinical trial in Canada must submit a clinical trial application to Health Canada. Health Canada reviews the application and notifies the company within 30 days if the application is found to be deficient. If the application is deemed acceptable, Health Canada will issue a no objection letter to the company within the 30-day review period which means the company may proceed with its clinical trial(s).

In addition to regulations in the United States, the European Union and Canada, we will be subject to a variety of other foreign regulations governing clinical trials and commercial distribution of our product candidates. Our ability to sell drugs will also depend on the availability of reimbursement from government and private practice insurance companies.

Research and Development Expenses

We incurred $14.4 million, $13.2 million and $26.3 million of research and development expenses in 2010, 2009 and 2008, respectively. We do not anticipate incurring any significant additional research expenses related to the discovery of additional product candidates, the development or application of fragment-based drug discovery methods, the development of in-house research capabilities, or on the clinical development of product

candidates other than vosaroxin. In addition, we are no longer conducting any research activities in connection with our collaboration with Biogen Idec. However, we have incurred and expect to continue to incur increased levels of research and development expenses to conduct further clinical and related development of vosaroxin.

Environment

We have made, and will continue to make, expenditures for environmental compliance and protection. We do not expect that such expenditures will have a material effect on our capital expenditures or results of operations in the foreseeable future.

Employees

As of December 31, 2010, our workforce consisted of 27 full-time employees. Of our total workforce, 17 are engaged in research and development and 10 are engaged in general and administrative functions. We have no collective bargaining agreements with our employees, and we have not experienced any work stoppages.

Corporate Background

We were incorporated in Delaware in February 1998 as Mosaic Pharmaceuticals, Inc., and subsequently changed our name to Sunesis Pharmaceuticals, Inc. Our offices are headquartered at 395 Oyster Point Boulevard, Suite 400, South San Francisco, California 94080, and our telephone number is (650) 266-3500. Our website address is *www.sunesis.com*. Information contained in, or accessible through, our website is not incorporated by reference into and does not form a part of this report.

ITEM 1A. *RISK FACTORS*

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below and all information contained in this report in weighing a decision to purchase our common stock. If any of the possible adverse events described below actually occurs, we may be unable to conduct our business as currently planned and our financial condition and operating results could be adversely affected. Additional risks not presently known to us or that we currently believe are immaterial may also significantly impair our business operations. In addition, the trading price of our common stock could decline due to the occurrence of any of these risks, and you may lose all or part of your investment. Please see "Special Note Regarding Forward-Looking Statements."

Risks Related to Our Business

We need to raise substantial additional funding to complete the development and potential commercialization of vosaroxin.

We believe that with $53.4 million in cash and investments as of December 31, 2010, we currently have the resources available and accessible to fund our operations until the planned unblinding of the VALOR trial in 2013. To the extent that the costs of the VALOR trial exceed our current estimates, unblinding does not occur within the currently anticipated timeframe or we are unable to raise sufficient additional capital through our controlled equity offering facility or otherwise, we will need to reduce operating expenses, enter into a collaboration or other similar arrangement with respect to development and/or commercialization rights to vosaroxin, outlicense intellectual property rights to vosaroxin, sell assets, or a combination of the above. We will need to raise substantial additional capital if we expand the number of patients included in the trial based on the pre-specified interim analysis of data from the trial by the DSMB.

In addition, we will need to raise substantial additional capital to:

- complete the development and potential commercialization of vosaroxin;
- fund additional clinical trials of vosaroxin and seek regulatory approvals;
- expand our development activities;
- implement additional internal systems and infrastructure; and
- build or access commercialization and additional manufacturing capabilities and supplies.

Our future funding requirements and sources will depend on many factors, including but not limited to:

- the rate of progress and cost of our clinical trials, including the VALOR trial in particular;
- the need for additional or expanded clinical trials (including in particular potential expansion of the number of patients included in the VALOR trial based on the pre-specified interim analysis of data from the trial by the DSMB);
- the economic and other terms and timing of any licensing, collaboration or other similar arrangement into which we may enter;
- the costs and timing of seeking and obtaining FDA and other regulatory approvals;
- the extent of our other development activities;

- the costs associated with building or accessing commercialization and additional manufacturing capabilities and supplies;
- the costs of acquiring or investing in businesses, product candidates and technologies, if any;
- the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights; and
- the effect of competing technological and market developments.

Until we can generate a sufficient amount of licensing or collaboration or product revenue to finance our cash requirements, which we may never do, we expect to finance future cash needs primarily through equity issuances, debt arrangements, a possible license, collaboration or other similar arrangement with respect to development and/or commercialization rights to vosaroxin, or a combination of the above. Any issuance of convertible debt securities, preferred stock or common stock may be at a discount from the then-current trading price of our common stock. If we issue additional common or preferred stock or securities convertible into common stock, our stockholders will experience additional dilution, which may be significant. Further, we do not know whether additional funding will be available on acceptable terms, or at all. If we are unable to raise substantial additional funding on acceptable terms or at all, we will be forced to delay or reduce the scope of our vosaroxin development program, potentially including the VALOR trial, and/or limit or cease our operations.

We may not be able to raise necessary additional funding pursuant to our controlled equity offering facility with Cantor and, as a result, may need to try to obtain additional capital through alternative financing options then available to us, if any, to fully finance the VALOR trial through to its unblinding and otherwise continue our operations.

On April 28, 2010, we entered into a controlled equity offering sales agreement with Cantor, pursuant to which we may issue and sell shares of our common stock having an aggregate offering price of up to $20.0 million from time to time through Cantor acting as agent and/or principal. As of March 15, 2011, we had sold an aggregate of 3.7 million shares of common stock at an average price of $4.32 per share for gross proceeds of $16.0 million. As of March 15, 2011, approximately $4.0 million of common stock was available to be sold under this facility, subject to certain conditions as specified in the agreement. Notwithstanding, we may be limited under the terms of the facility in the number of shares of common stock we may issue and the resulting amount of capital that we could raise pursuant thereto. Any such limitation may be due to a number of factors, including as a result of the termination of the facility due to a material breach of its terms by us or Cantor's election to terminate the facility in its discretion. In addition, we may be subject to limitations on the number of shares of common stock we may sell pursuant to the facility due to the eligibility requirements for use of a Form S-3 Registration Statement and other applicable legal restrictions. As a result, there is no assurance that the controlled equity offering facility will be available when required or that we will be able to raise the necessary funding pursuant thereto in order to fully finance the VALOR trial until its planned unblinding and otherwise continue our operations. In such event, we will need to raise additional capital through alternative financing options then available to us, if any.

We have incurred losses since inception and anticipate that we will continue to incur losses for the foreseeable future. We may not ever achieve or sustain profitability.

We are not profitable and have incurred losses in each year since our inception in 1998. Our net losses for the years ended December 31, 2010, 2009 and 2008 were $24.6 million, $40.2 million and $37.2 million, respectively. As of December 31, 2010, we had an accumulated deficit of $381.0 million. We do not currently have any products that have been approved for marketing, and we continue to incur substantial development and general and administrative expenses related to our operations. We expect to continue to incur losses for the foreseeable future, and we expect these losses to increase significantly as the VALOR trial progresses, as we seek

regulatory approvals for vosaroxin, and as we commercialize vosaroxin, if approved. Our losses, among other things, have caused and will continue to cause our stockholders' equity and working capital to decrease.

To date, we have derived substantially all of our revenue from research collaboration agreements with Biogen Idec, Merck and J&J PRD. As of December 31, 2010, our only remaining ongoing collaboration is with Biogen Idec; however, the research phase for this collaboration is completed. On November 3, 2010, Biogen Idec announced that it will seek to spin out or outlicense certain oncology assets, including the collaboration agreement with us. We cannot predict the outcome of this strategic decision by Biogen Idec or its impact on future development activity under our collaboration agreement or on our prospects for the receipt of milestone or royalty payments under the collaboration agreement. We do not expect to enter into any new collaboration agreement that will result in research revenue for us. We also do not anticipate that we will generate revenue from the sale of products for the foreseeable future. In the absence of additional sources of capital, which may not be available to us on acceptable terms, or at all, the development of vosaroxin or future product candidates, if any, may be reduced in scope, delayed or terminated. If our product candidates or those of our collaborators fail in clinical trials or do not gain regulatory approval, or if our future products do not achieve market acceptance, we may never become profitable. Even if we achieve profitability in the future, we may not be able to sustain profitability in subsequent periods.

The development of vosaroxin could be halted or significantly delayed for various reasons; our clinical trials for vosaroxin may not demonstrate safety or efficacy or lead to regulatory approval.

Vosaroxin is vulnerable to the risks of failure inherent in the drug development process. We need to conduct significant additional preclinical studies and clinical trials before we can attempt to demonstrate that vosaroxin is safe and effective to the satisfaction of the FDA and other regulatory authorities. Failure can occur at any stage of the development process, and successful preclinical studies and early clinical trials do not ensure that later clinical trials will be successful. A number of companies in the pharmaceutical industry have suffered significant setbacks in advanced clinical trials, even after obtaining promising results in earlier trials.

For example, we terminated two Phase 2 clinical trials of vosaroxin in small cell and non-small cell lung cancer. If our clinical trials result in unacceptable toxicity or lack of efficacy, we may have to terminate them. If clinical trials are halted, or if they do not show that vosaroxin is safe and effective in the indications for which we are seeking regulatory approval, our future growth will be limited and we may not have any other product candidates to develop.

We do not know whether our ongoing clinical trials or any other future clinical trials with vosaroxin or any of our product candidates, including the VALOR trial in particular, will be completed on schedule, or at all, or whether our ongoing or planned clinical trials will begin or progress on the time schedule we anticipate. The commencement of our planned or future clinical trials could be substantially delayed or prevented by several factors, including:

- delays or failures to raise additional funding;
- results of meetings with the FDA and/or other regulatory bodies;
- a limited number of, and competition for, suitable patients with particular types of cancer for enrollment in our clinical trials;
- delays or failures in obtaining regulatory approval to commence a clinical trial;
- delays or failures in obtaining sufficient clinical materials;
- delays or failures in obtaining approval from independent institutional review boards to conduct a clinical trial at prospective sites; or

- delays or failures in reaching acceptable clinical trial agreement terms or clinical trial protocols with prospective sites.

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

- delays or failures to raise additional funding;
- slower than expected rates of patient recruitment and enrollment;
- failure of patients to complete the clinical trial;
- delays or failures in reaching the number of events pre-specified in the trial design;
- the need to expand the clinical trial (including, in particular, potential expansion of the number of patients included in our VALOR trial based on the pre-specified interim analysis of data by the DSMB);
- delays or failures in obtaining sufficient clinical materials, including vosaroxin, its matching placebo and cytarabine;
- unforeseen safety issues;
- lack of efficacy during clinical trials;
- inability or unwillingness of patients or clinical investigators to follow our clinical trial protocols; and
- inability to monitor patients adequately during or after treatment.

Additionally, our clinical trials may be suspended or terminated at any time by the FDA, other regulatory authorities, or ourselves. Any failure to complete or significant delay in completing clinical trials for our product candidates could harm our financial results and the commercial prospects for our product candidates.

We rely on a limited number of third-party manufacturers that are capable of manufacturing vosaroxin API and FDP to supply us with our vosaroxin API and FDP and the placebo used in the VALOR trial. If we fail to obtain sufficient quantities of these materials, the VALOR trial and the development of vosaroxin could be halted or significantly delayed. In addition, we have previously identified product impurities in the vosaroxin API, and there is no assurance they will not occur in the future.

We do not currently own or operate manufacturing facilities and lack the capability to manufacture vosaroxin on a clinical or commercial scale. As a result, we rely on third parties to manufacture vosaroxin API and FDP and the placebo product used in the VALOR trial. The vosaroxin API is classified as a cytotoxic substance, limiting the number of available manufacturers.

We currently rely on two contract manufacturers for the vosaroxin API, which is manufactured through a multi-step convergent synthesis in which two intermediates are manufactured in a parallel process and then combined and de-protected in the final two steps. We recently started working with the second vosaroxin API manufacturer, and to date no vosaroxin FDP has been formulated from the vosaroxin API supplied by this second manufacturer. We also currently rely on a single contract manufacturer to formulate the vosaroxin API and fill and finish vials of the vosaroxin FDP.

If our third-party vosaroxin API or FDP manufacturers are unable or unwilling to produce the vosaroxin API or FDP or placebo we require, we would need to establish arrangements with one or more alternative suppliers. However, establishing a relationship with an alternative supplier would likely delay our ability to produce vosaroxin API or FDP for six to nine months. Our ability to replace an existing manufacturer would also be difficult and time consuming because the number of potential manufacturers is limited and the FDA must approve any replacement manufacturer before it can be an approved commercial supplier. Such approval would require new testing and compliance inspections. It may be difficult or impossible for us to identify and engage a replacement manufacturer on acceptable terms in a timely manner, or at all. We expect to continue to depend on third-party contract manufacturers for all our vosaroxin API, FDP and placebo needs for the foreseeable future.

Vosaroxin requires precise, high quality manufacturing. We have observed visible particles during stability studies of two vosaroxin FDP lots. We have since identified a process impurity in the vosaroxin API that, when formulated into the packaged vial of the vosaroxin FDP, can result in the formation of particles over time. As a response to these findings, we implemented, and continue to monitor and adjust, a revised manufacturing process to seek to control the impurity and thereby prevent particle formation. Two lots of vosaroxin API manufactured using a revised manufacturing process were formulated into FDP lots that have both completed up to 24 months of stability testing at room temperature without formation of particles. It will take time to evaluate whether or not our revised manufacturing process for vosaroxin API will be successful in stopping the formation of particles in FDP lots over the longer term, and to evaluate whether or not such control of particle formation can also be reliably and consistently achieved in subsequent lots over the shorter or longer term. If our changes in manufacturing process do not adequately control the formation of visible particles, we will need to discuss other possibilities with the FDA and/or other regulatory bodies, which could include a temporary clinical hold of the VALOR trial until the issue has been resolved to their satisfaction.

In addition to process impurities, our contract manufacturers' failure to achieve and maintain high manufacturing standards in compliance with cGMP regulations could result in other manufacturing errors leading to patient injury or death, product recalls or withdrawals, delays or interruptions of production or failures in product testing or delivery. Although contract manufacturers are subject to ongoing periodic unannounced inspection by the FDA and corresponding state agencies to ensure strict compliance with cGMP and other applicable government regulations and corresponding foreign standards, any such performance failures on the part of a contract manufacturer could result in the delay or prevention of filing or approval of marketing applications for vosaroxin, cost overruns or other problems that could seriously harm our business. This would deprive us of potential product revenue and result in additional losses.

To date, vosaroxin has been manufactured in quantities appropriate for preclinical studies and clinical trials. New lots of API and FDP will need to be manufactured and released to support our VALOR trial and stability assessments required for regulatory approval. There can be no assurance that we will be able to obtain a sufficient supply of vosaroxin API and FDP to supply our VALOR trial at the anticipated rate of enrollment or to continue the trial without interruption. Prior to being approved for commercial sale, we will need to manufacture API and FDP in larger quantities. Any significant scale-up of manufacturing will be accompanied by process validation studies, which are required to be reviewed by the FDA prior to approval. If we are unable to successfully increase the manufacturing capacity for vosaroxin, the regulatory approval or commercial launch may be delayed or there may be a shortage in commercial supply.

We rely on third-party distributors for the supply of cytarabine for our VALOR trial. Cytarabine is in short supply throughout the world, and there is no guarantee we can procure sufficient quantities to supply our VALOR trial.

The cytarabine used in our VALOR trial is procured from third-party distributors. Cytarabine is currently in short supply throughout the world. Additional procurement of cytarabine will be necessary to complete the VALOR trial. If we are unable to procure the necessary supplies to support our VALOR trial, the trial will be delayed. Any significant delay could seriously harm our business.

The failure to enroll patients for clinical trials may cause delays in developing vosaroxin.

We may encounter delays if we are unable to enroll enough patients to complete clinical trials of vosaroxin, including the VALOR trial. Patient enrollment depends on many factors, including the size of the patient population, the nature of the protocol, the proximity of patients to clinical sites, the number and nature of competing treatments and ongoing clinical trials of competing drugs for the same indication, and the eligibility criteria for the trial. Patients participating in our trials may elect to leave our trials and switch to alternative treatments that are available to them, either commercially or on an expanded access basis, or in other clinical trials. Competing treatments include nucleoside analogs, anthracyclines and hypomethylating agents. Moreover, when one product candidate is evaluated in multiple clinical trials simultaneously, patient enrollment in ongoing trials can be adversely affected by negative results from completed trials. In the VALOR trial, vosaroxin is being tested in patients with AML, which can be a difficult patient population to recruit.

The results of preclinical studies and clinical trials may not satisfy the requirements of the FDA or other regulatory agencies.

Prior to receiving approval to commercialize vosaroxin or future product candidates, if any, in the United States or abroad, we must demonstrate with substantial evidence from well-controlled clinical trials, to the satisfaction of the FDA and other regulatory authorities, that such product candidates are safe and effective for their intended uses. The results from preclinical studies and clinical trials can be interpreted in different ways, and the favorable results from previous trials of vosaroxin may not be experienced in the VALOR trial. Even if we believe the preclinical or clinical data are promising, such data may not be sufficient to support approval by the FDA and other regulatory authorities. In addition, although we believe that our discussions with the FDA support the potential approval of vosaroxin for the treatment of AML based on positive results from the VALOR trial without the need to conduct additional clinical trials, the FDA has substantial discretion in the approval process and may not grant approval based on data from this trial.

We rely on third parties to conduct our clinical trials. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may be unable to obtain regulatory approval for or commercialize vosaroxin.

We rely on third parties, such as contract research organizations, medical institutions, clinical investigators and contract laboratories, to conduct our planned and existing clinical trials for vosaroxin. If the third parties conducting our clinical trials do not perform their contractual duties or obligations, do not meet expected deadlines or need to be replaced, or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical trial protocols or for any other reason, we may need to enter into new arrangements with alternative third parties and our clinical trials may be extended, delayed or terminated or may need to be repeated, and we may not be able to obtain regulatory approval for or commercialize the product candidate being tested in such trials.

We expect to expand our development capabilities, and any difficulties hiring or retaining key personnel or managing this growth could disrupt our operations.

We are highly dependent on the principal members of our development staff. We expect to expand our development capabilities by increasing expenditures in these areas, hiring additional employees and potentially expanding the scope of our current operations. Future growth will require us to continue to implement and improve our managerial, operational and financial systems and continue to retain, recruit and train additional qualified personnel, which may impose a strain on our administrative and operational infrastructure. The competition for qualified personnel in the biopharmaceutical field is intense. We are highly dependent on our continued ability to attract, retain and motivate highly qualified management and specialized personnel required for clinical development. Due to our limited resources, we may not be able to effectively manage any expansion of our operations or recruit and train additional qualified personnel. If we are unable to retain key personnel or manage our growth effectively, we may not be able to implement our business plan.

If we are sued for infringing intellectual property rights of third parties, litigation will be costly and time consuming and could prevent us from developing or commercializing vosaroxin.

Our commercial success depends on not infringing the patents and other proprietary rights of third parties and not breaching any collaboration or other agreements we have entered into with regard to our technologies and product candidates. If a third party asserts that we are using technology or compounds claimed in issued and unexpired patents owned or controlled by the third party, we may need to obtain a license, enter into litigation to challenge the validity of the patents or incur the risk of litigation in the event that a third party asserts that we infringe its patents.

If a third party asserts that we infringe its patents or other proprietary rights, we could face a number of challenges that could seriously harm our competitive position, including:

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

If our competitors develop and market products that are more effective, safer or less expensive than vosaroxin, our commercial opportunities will be negatively impacted.

The life sciences industry is highly competitive, and we face significant competition from many pharmaceutical, biopharmaceutical and biotechnology companies that are researching, developing and marketing products designed to address the treatment of cancer, including AML and ovarian cancer. Many of our competitors have significantly greater financial, manufacturing, marketing and drug development resources than we do. Large pharmaceutical companies in particular have extensive experience in the clinical testing of, obtaining regulatory approvals for, and marketing drugs.

We believe that our ability to successfully compete in the marketplace with vosaroxin and any future product candidates, if any, will depend on, among other things:

- our ability to develop novel compounds with attractive pharmaceutical properties and to secure, protect and maintain intellectual property rights based on our innovations;
- the efficacy, safety and reliability of our product candidates;
- the speed at which we develop our product candidates;
- our ability to design and successfully execute appropriate clinical trials;
- our ability to maintain a good relationship with regulatory authorities;
- our ability to obtain, and the timing and scope of, regulatory approvals;

2010 Form 10-K

- our ability to manufacture and sell commercial quantities of future products to the market; and
- acceptance of future products by physicians and other healthcare providers.

Vosaroxin is a small molecule therapeutic that will compete with other drugs and therapies that currently exist or are being developed. There are a number of compounds in development for the treatment of AML, including Genzyme Corporation's clofarabine and Celgene Corporation's azacitidine. Each of these or other compounds could become potential competitors for vosaroxin, if approved.

We expect competition for vosaroxin for the treatment of AML to increase as additional products are developed and approved in various patient populations. If our competitors market products that are more effective, safer or less expensive than vosaroxin or our other future products, if any, or that reach the market sooner we may not achieve commercial success or substantial market penetration. In addition, the biopharmaceutical industry is characterized by rapid change. Products developed by our competitors may render vosaroxin or any future product candidates obsolete.

Our proprietary rights may not adequately protect vosaroxin or future product candidates, if any.

Our commercial success will depend on our ability to obtain patents and maintain adequate protection for vosaroxin and any future product candidates in the United States and other countries. We own, co-own or have rights to a significant number of issued U.S. and foreign patents and pending U.S. and foreign patent applications. We will be able to protect our proprietary rights from unauthorized use by third parties only to the extent that our proprietary technologies and future products are covered by valid and enforceable patents or are effectively maintained as trade secrets.

2010 Form 10-K

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

- we, our licensors or our collaboration partners were the first to make the inventions covered by each of our issued patents and pending patent applications;
- we, our licensors or our collaboration partners were the first to file patent applications for these inventions;
- others will independently develop similar or alternative technologies or duplicate any of our technologies;
- any of our or our licensors' pending patent applications will result in issued patents;
- any of our, our licensors' or our collaboration partners' patents will be valid or enforceable;
- any patents issued to us, our licensors or our collaboration partners will provide us with any competitive advantages, or will be challenged by third parties;
- we will develop additional proprietary technologies that are patentable; or
- the patents of others will have an adverse effect on our business.

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

The composition of matter patents covering vosaroxin are due to expire in 2015. Even if vosaroxin is approved by the FDA and foreign equivalents thereof, we may not be able to recover our development costs prior to the expiration of these patents.

The vosaroxin composition of matter is covered by U.S. patent 5,817,669 and its counterpart patents in 43 foreign jurisdictions. U.S. patent 5,817,669 is due to expire in October 2015, and most of its foreign counterparts are due to expire in June 2015. In July 2010, we announced that the European Patent Office, or EPO, had granted us a patent covering combinations of vosaroxin with cytarabine. The patent was validated and provides coverage for such combination products in 30 member states of the European Patent Convention and is due to expire in 2025. In November 2010, we announced that the U.S. Patent and Trademark Office had granted us a patent covering certain pharmaceutical compositions of vosaroxin, and in March 2011, we announced that the EPO had granted us a similar patent, which we are proceeding to validate in multiple EPO member states. These patents cover the formulation used in our VALOR trial and are due to expire in 2025. We do not know whether patent term extensions and data exclusivity periods will be available in the future. Vosaroxin must undergo extensive clinical trials before it can be approved by the FDA. We do not know when, if ever, vosaroxin will be approved by the FDA. Even if vosaroxin is approved by the FDA in the future, we may not have sufficient time to commercialize our vosaroxin product to enable us to recover our development costs prior to the expiration of the U.S. and foreign patents covering vosaroxin. Our obligation to pay royalties to Dainippon, the company from which we licensed vosaroxin, may extend beyond the patent expiration, which would further erode the profitability of this product.

Any future workforce and expense reductions may have an adverse impact on our internal programs, our ability to hire and retain key personnel and may be distracting to management.

We have, in the past, implemented a number of workforce reductions. Depending on our need for additional funding and expense control, we may be required to implement further workforce and expense reductions in the future. Further workforce and expense reductions could result in reduced progress on our internal programs. In addition, employees, whether or not directly affected by a reduction, may seek future employment with our business partners or competitors. Although our employees are required to sign a confidentiality agreement at the time of hire, the confidential nature of certain proprietary information may not be maintained in the course of any such future employment. Further, we believe that our future success will depend in large part upon our ability to attract and retain highly skilled personnel. We may have difficulty retaining and attracting such personnel as a result of a perceived risk of future workforce and expense reductions. In addition, the implementation of expense reduction programs may result in the diversion of efforts of our executive management team and other key employees, which could adversely affect our business.

We may be subject to damages resulting from claims that we or our employees have wrongfully used or disclosed alleged trade secrets of our employees' former employers.

Many of our employees were previously employed at biotechnology or pharmaceutical companies, including our competitors or potential competitors. We may be subject to claims that we or our employees have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in

2010 Form 10-K

addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. A loss of key personnel or the work product of current or former personnel could hamper or prevent our ability to commercialize vosaroxin, which could severely harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

We currently have limited marketing staff and no sales or distribution organization. If we are unable to develop a sales and marketing and distribution capability on our own or through collaborations with marketing partners, we will not be successful in commercializing vosaroxin.

We currently have no sales or distribution capabilities and limited marketing staff. We intend to establish our own sales and marketing organization with technical expertise and supporting distribution capabilities to commercialize vosaroxin in North America, which will be expensive and time consuming. Any failure or delay in the development of our internal sales, marketing and distribution capabilities would adversely impact the commercialization of these products. We plan to collaborate with third parties that have direct sales forces and established distribution systems to commercialize vosaroxin. To the extent that we enter into co-promotion or other licensing arrangements, our product revenue is likely to be lower than if we marketed or sold vosaroxin directly. In addition, any revenue we receive will depend upon the efforts of third parties, which may not be successful and are only partially within our control. If we are unable to enter into such arrangements on acceptable terms or at all, we may not be able to successfully commercialize vosaroxin. If we are not successful in commercializing vosaroxin or our future product candidates, if any, either on our own or through collaborations with one or more third parties, our future product revenue will suffer and we may incur significant additional losses.

2010 Form 10-K

We depend on various consultants and advisors for the success and continuation of our development efforts.

We work extensively with various consultants and advisors, who provide advice and or services in various business and development functions, including clinical development, operations and strategy, regulatory matters, accounting and finance. The potential success of our drug development programs depends, in part, on continued collaborations with certain of these consultants and advisors. Our consultants and advisors are not our employees and may have commitments and obligations to other entities that may limit their availability to us. We do not know if we will be able to maintain such relationships or that such consultants and advisors will not enter into other arrangements with competitors, any of which could have a detrimental impact on our development objectives and our business.

If conflicts of interest arise between our current or future collaboration partners, if any, and us, any of them may act in their self interest, which may be adverse to our interests.

If a conflict of interest arises between us and one or more of our current or potential future collaboration partners, if any, they may act in their own self interest or otherwise in a way that is not in the interest of our company or our stockholders. Biogen Idec or potential future collaboration partners, if any, are conducting or may conduct product development efforts within the disease area that is the subject of collaboration with our company. In current or potential future collaborations, if any, we have agreed or may agree not to conduct, independently or with any third party, any research that is competitive with the research conducted under our collaborations. Our collaboration partners, however, may develop, either alone or with others, products in related fields that are competitive with the product candidates that are the subject of these collaborations. Competing products, either developed by our collaboration partners or to which our collaboration partners have rights, may result in their withdrawal of support for a product candidate covered by the collaboration agreement.

If one or more of our current or potential future collaboration partners, if any, were to breach or terminate their collaboration agreements with us or otherwise fail to perform their obligations thereunder in a timely manner, the preclinical or clinical development or commercialization of the affected product candidates could be

delayed or terminated. We do not know whether our collaboration partners will pursue alternative technologies or develop alternative product candidates, either on their own or in collaboration with others, including our competitors, as a means for developing treatments for the diseases targeted by collaboration agreements with our company.

Compliance with changing regulation of corporate governance and public disclosure may result in additional expenses.

Changing laws, regulations and standards relating to corporate governance and public disclosure may create uncertainty regarding compliance matters. New or changed laws, regulations and standards are subject to varying interpretations in many cases. As a result, their application in practice may evolve over time. We are committed to maintaining high standards of corporate governance and public disclosure. Complying with evolving interpretations of new or changed legal requirements may cause us to incur higher costs as we revise current practices, policies and procedures, and may divert management time and attention from potential revenue-generating activities to compliance matters. If our efforts to comply with new or changed laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, our reputation may also be harmed. Further, our board members, chief executive officer and chief financial officer could face an increased risk of personal liability in connection with the performance of their duties. As a result, we may have difficulty attracting and retaining qualified board members and executive officers, which could harm our business.

We are exposed to risks related to foreign currency exchange rates.

Some of our costs and expenses are denominated in foreign currencies. Most of our foreign expenses are associated with activities related to the VALOR trial that are occurring outside of the United States, and in particular in Western Europe. When the U.S. dollar weakens against the Euro or British pound, the U.S. dollar value of the foreign currency denominated expense increases, and when the U.S. dollar strengthens against the Euro or British pound, the U.S. dollar value of the foreign currency denominated expense decreases. Consequently, changes in exchange rates, and in particular a weakening of the U.S. dollar, may adversely affect our results of operations. We may purchase certain European currencies or highly-rated investments denominated in such currencies to manage the risk of future movements in foreign exchange rates that would affect such payables in accordance with our investment policy. However, there is no guarantee that the related gains and losses will substantially offset each other, and we may be subject to significant exchange gains or losses as currencies fluctuate from quarter to quarter.

Our facilities are located near known earthquake fault zones, and the occurrence of an earthquake or other catastrophic disaster could cause damage to our facilities and equipment, which could require us to cease or curtail operations.

Our facilities are located in the San Francisco Bay Area near known earthquake fault zones and are vulnerable to significant damage from earthquakes. We are also vulnerable to damage from other types of disasters, including fires, floods, power loss, communications failures and similar events. If any disaster were to occur, our ability to operate our business at our facilities may be seriously or completely impaired and our data could be lost or destroyed.

Risks Related to Our Industry

The regulatory approval process is expensive, time consuming and uncertain and may prevent us from obtaining approval for the commercialization of vosaroxin.

The research, testing, manufacturing, selling and marketing of product candidates are subject to extensive regulation by the FDA and other regulatory authorities in the United States and other countries, which regulations differ from country to country. Neither we nor our collaboration partners are permitted to market our product

2010 Form 10-K

candidates in the United States until we receive approval of an NDA from the FDA, or in any other country without the equivalent marketing approval from such country. We have not received marketing approval for vosaroxin in any jurisdiction. None of our collaboration partners have had a product resulting from our collaboration enter clinical trials. In addition, failure to comply with FDA and other applicable U.S. and foreign regulatory requirements may subject us to administrative or judicially imposed sanctions, including warning letters, civil and criminal penalties, injunctions, product seizure or detention, product recalls, total or partial suspension of production, and refusal to approve pending NDAs, supplements to approved NDAs or their foreign equivalents.

Regulatory approval of an NDA or NDA supplement or a foreign equivalent is not guaranteed, and the approval process is expensive, uncertain and may take several years. Furthermore, the development process for oncology products may take longer than in other therapeutic areas. Regulatory authorities have substantial discretion in the drug approval process. Despite the time and expense exerted, failure can occur at any stage, and we could encounter problems that cause us to abandon clinical trials or to repeat or perform additional preclinical studies and clinical trials. The number of preclinical studies and clinical trials that will be required for marketing approval varies depending on the drug candidate, the disease or condition that the drug candidate is designed to address, and the regulations applicable to any particular drug candidate. In particular, although we believe that our discussions with the FDA support the potential approval of vosaroxin for the treatment of AML based on positive results from the VALOR trial without the need to conduct additional clinical trials, the FDA has substantial discretion in the approval process and may not grant approval based on data from this trial.

The FDA or a foreign regulatory authority can delay, limit or deny approval of a drug candidate for many reasons, including:

- the drug candidate may not be deemed safe or effective;
- regulatory officials may not find the data from preclinical studies and clinical trials sufficient;
- the FDA or foreign regulatory authority might not approve our or our third-party manufacturers' processes or facilities; or
- the FDA or foreign regulatory authority may change its approval policies or adopt new regulations.

We may be subject to costly claims related to our clinical trials and may not be able to obtain adequate insurance.

Because we conduct clinical trials in humans, we face the risk that the use of vosaroxin or future product candidates, if any, will result in adverse side effects. We cannot predict the possible harms or side effects that may result from our clinical trials. Although we have clinical trial liability insurance for up to $10.0 million in aggregate, our insurance may be insufficient to cover any such events. We do not know whether we will be able to continue to obtain clinical trial coverage on acceptable terms, or at all. We may not have sufficient resources to pay for any liabilities resulting from a claim excluded from, or beyond the limit of, our insurance coverage. There is also a risk that third parties that we have agreed to indemnify could incur liability. Any litigation arising from our clinical trials, even if we were ultimately successful, would consume substantial amounts of our financial and managerial resources and may create adverse publicity.

Even if we receive regulatory approval to sell vosaroxin, the market may not be receptive to vosaroxin.

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

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

For example, the potential toxicity of single and repeated doses of vosaroxin has been explored in a number of animal studies that suggest the dose-limiting toxicities in humans receiving vosaroxin may be similar to some of those observed with approved cytotoxic agents, including reversible toxicity to bone marrow cells, the gastrointestinal system and other systems with rapidly dividing cells. In our Phase 1 and Phase 2 clinical trials of vosaroxin, we have witnessed the following side effects, irrespective of causality, ranging from mild to more severe: lowered white blood cell count that may lead to a serious or possibly life-threatening infection, hair loss, mouth sores, fatigue, nausea with or without vomiting, lowered platelet count, which may lead to an increase in bruising or bleeding, lowered red blood cell count (anemia), weakness, tiredness, shortness of breath, diarrhea and intestinal blockage.

If vosaroxin fails to achieve market acceptance, due to unacceptable side effects or any other reasons, we may not be able to generate significant revenue or to achieve or sustain profitability.

Even if we receive regulatory approval for vosaroxin, we will be subject to ongoing FDA and other regulatory obligations and continued regulatory review, which may result in significant additional expense and limit our ability to commercialize vosaroxin.

Any regulatory approvals that we or our potential future collaboration partners receive for vosaroxin or our future product candidates, if any, may also be subject to limitations on the indicated uses for which the product may be marketed or contain requirements for potentially costly post-marketing trials. In addition, even if approved, the labeling, packaging, adverse event reporting, storage, advertising, promotion and recordkeeping for any product will be subject to extensive and ongoing regulatory requirements. The subsequent discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, may result in restrictions on the marketing of the product, and could include withdrawal of the product from the market.

Regulatory policies may change and additional government regulations may be enacted that could prevent or delay regulatory approval of our product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are not able to maintain regulatory compliance, we might not be permitted to market vosaroxin or our future products and we may not achieve or sustain profitability.

The coverage and reimbursement status of newly approved drugs is uncertain, and failure to obtain adequate coverage and reimbursement could limit our ability to market vosaroxin and decrease our ability to generate revenue.

There is significant uncertainty related to the third party coverage and reimbursement of newly approved drugs both nationally and internationally. The commercial success of vosaroxin and our future products, if any, in both domestic and international markets depends on whether third-party coverage and reimbursement is available for the ordering of our future products by the medical profession for use by their patients. Medicare, Medicaid, health maintenance organizations and other third-party payors are increasingly attempting to manage healthcare costs by limiting both coverage and the level of reimbursement of new drugs and, as a result, they may not cover or provide adequate payment for our future products. These payors may not view our future products as cost-effective, and reimbursement may not be available to consumers or may not be sufficient to allow our future products to be marketed on a competitive basis. Likewise, legislative or regulatory efforts to control or reduce healthcare costs or reform government healthcare programs could result in lower prices or rejection of our future products. Changes in coverage and reimbursement policies or healthcare cost containment initiatives that limit or restrict reimbursement for our future products may reduce any future product revenue.

Failure to obtain regulatory approval in foreign jurisdictions will prevent us from marketing vosaroxin abroad.

We intend to market vosaroxin in international markets. In order to market vosaroxin in the European Union, Canada and many other foreign jurisdictions, we must obtain separate regulatory approvals. We have had limited interactions with foreign regulatory authorities, and the approval procedures vary among countries and can involve additional testing at significant cost. The time required to obtain approval may differ from that required to obtain FDA approval. Approval by the FDA does not ensure approval by regulatory authorities in other countries, and approval by one foreign regulatory authority does not ensure approval by regulatory authorities in other foreign countries or by the FDA. The foreign regulatory approval processes may include all of the risks associated with obtaining FDA approval. We may not obtain foreign regulatory approvals on a timely basis, if at all. We may not be able to file for regulatory approvals and may not receive necessary approvals to commercialize vosaroxin or any other future products in any market.

2010 Form 10-K

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

We intend to seek approval to market vosaroxin in both the United States and foreign jurisdictions. If we obtain approval in one or more foreign jurisdictions, we will be subject to rules and regulations in those jurisdictions relating to vosaroxin. In some foreign countries, particularly in the European Union, prescription drug pricing is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a drug candidate. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost-effectiveness of vosaroxin to other available therapies. If reimbursement of vosaroxin is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, we may be unable to achieve or sustain profitability.

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

We, through third-party contractors, use hazardous chemicals and radioactive and biological materials in our business and are subject to a variety of federal, state, regional and local laws and regulations governing the use, generation, manufacture, storage, handling and disposal of these materials. Although we believe our safety procedures for handling and disposing of these materials and waste products comply with these laws and regulations, we cannot eliminate the risk of accidental injury or contamination from the use, storage, handling or

disposal of hazardous materials. In the event of contamination or injury, we could be held liable for any resulting damages, and any liability could significantly exceed our insurance coverage, which is limited for pollution cleanup and contamination.

Risks Related to Our Common Stock

The price of our common stock may continue to be volatile, and the value of an investment in our common stock may decline.

In 2010, our common stock traded as low as $1.75 and as high as $9.72. Factors that could cause continued volatility in the market price of our common stock include, but are not limited to:

- our ability to raise additional capital to carry through with our clinical development plans and current and future operations and the terms of any related financing arrangement;
- results from, and any delays in or discontinuance of, ongoing and planned clinical trials for vosaroxin;
- an expansion of the number of patients included in the VALOR trial based on the pre-specified interim analysis by the DSMB;
- announcements of FDA non-approval of vosaroxin, delays in filing regulatory documents with the FDA or other regulatory agencies, or delays in the review process by the FDA or other foreign regulatory agencies;
- announcements relating to restructuring and other operational changes;
- delays in the commercialization of vosaroxin or our future products, if any;
- market conditions in the pharmaceutical, biopharmaceutical and biotechnology sectors;
- issuance of new or changed securities analysts' reports or recommendations;
- developments or disputes concerning our intellectual property or other proprietary rights;
- clinical and regulatory developments with respect to potential competitive products;
- introduction of new products by our competitors;
- issues in manufacturing vosaroxin drug substance or drug product, or future products, if any;
- market acceptance of vosaroxin or our future products, if any;
- announcements relating to our collaboration with Biogen Idec;
- actual and anticipated fluctuations in our quarterly operating results;
- deviations in our operating results from the estimates of analysts;
- third-party healthcare reimbursement policies;
- FDA or other U.S. or foreign regulatory actions affecting us or our industry;

- litigation or public concern about the safety of vosaroxin or future products, if any;
- failure to develop or sustain an active and liquid trading market for our common stock;
- sales of our common stock by our officers, directors or significant stockholders; and
- additions or departures of key personnel.

If we fail to maintain compliance with the continued listing requirements of The NASDAQ Capital Market, our common stock may be delisted and the price of our common stock and our ability to access the capital markets could be negatively impacted.

Our common stock currently trades on The NASDAQ Capital Market under the symbol "SNSS." This market has continued listing standards that we must comply with in order to maintain the listing of our common stock. The continued listing standards include, among others, a minimum bid price requirement of $1.00 per share and any of: (i) a minimum stockholders' equity of $2.5 million; (ii) a market value of listed securities of at least $35.0 million; or (iii) net income from continuing operations of $500,000 in the most recently completed fiscal year or in the two of the last three fiscal years. Our results of operations and fluctuating stock price directly impact our ability to satisfy these continued listing standards. In the event we are unable to maintain these continued listing standards, our common stock may be subject to delisting from The NASDAQ Capital Market.

From March 31, 2010 until the close of trading on March 1, 2011, we were not in compliance with the minimum bid price requirement of $1.00 per share pursuant to NASDAQ Listing Rule 5550(a)(2). On February 14, 2011, we effected a one-for-six reverse split of our capital stock, or the Reverse Split, as previously authorized and approved at our annual meeting of stockholders on June 2, 2010. As a result of the Reverse Split, every six shares of our capital stock were combined into one share of capital stock. On February 15, 2011, our common stock began trading on The NASDAQ Capital Market on a post-Reverse Split basis, following which the bid price of our common stock closed at or above $1.00 for the 10 consecutive business days ended March 1, 2011. As a result, on March 2, 2011, we received a letter from NASDAQ indicating that we had regained compliance with the rule as the closing bid price of our common stock had been at $1.00 per share or greater for 10 consecutive trading days. As a result, we are currently in full compliance with the NASDAQ continued listing requirements.

As mentioned above, the price of our common stock can be volatile, and there can be no assurance that we will continue to meet the minimum $1.00 bid price requirement or the other NASDAQ continued listing requirements in the future, and we may be subject to delisting as a result. If we are delisted, we would expect our common stock to be traded in the over-the-counter market, which could adversely affect the liquidity of our common stock. Additionally, we could face significant material adverse consequences, including:

- a limited availability of market quotations for our common stock;
- a reduced amount of analyst coverage for us;
- a decreased ability to issue additional securities or obtain additional financing in the future;
- reduced liquidity for our stockholders;
- potential loss of confidence by collaboration partners and employees; and
- loss of institutional investor interest.

Provisions of our charter documents or Delaware law could delay or prevent an acquisition of our company, even if the acquisition would be beneficial to our stockholders, and could make it more difficult to change management.

Provisions of our amended and restated certificate of incorporation and amended and restated bylaws may discourage, delay or prevent a merger, acquisition or other change in control that stockholders might otherwise consider favorable, including transactions in which stockholders might otherwise receive a premium for their shares. In addition, these provisions may frustrate or prevent any attempt by our stockholders to replace or remove our current management by making it more difficult to replace or remove our board of directors. These provisions include:

- a classified board of directors so that not all directors are elected at one time;
- a prohibition on stockholder action through written consent;
- limitations on our stockholders' ability to call special meetings of stockholders;
- an advance notice requirement for stockholder proposals and nominations; and
- the authority of our board of directors to issue preferred stock with such terms as our board of directors may determine.

In addition, Delaware law prohibits a publicly held Delaware corporation from engaging in a business combination with an interested stockholder, generally a person who, together with its affiliates, owns or within the last three years has owned 15% of our voting stock, for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. Accordingly, Delaware law may discourage, delay or prevent a change in control of our company.

Provisions in our charter documents and provisions of Delaware law could limit the price that investors are willing to pay in the future for shares of our common stock.

The ownership of our capital stock is highly concentrated, and your interests may conflict with the interests of our existing stockholders.

Our executive officers and directors and their affiliates beneficially owned approximately 34.7% of our outstanding capital stock as of December 31, 2010, assuming the exercise in full of the outstanding warrants to purchase common stock held by these stockholders as of such date. Accordingly, these stockholders, acting as a group, could have significant influence over the outcome of corporate actions requiring stockholder approval, including the election of directors, any merger, consolidation or sale of all or substantially all of our assets or any other significant corporate transaction. The significant concentration of stock ownership may adversely affect the trading price of our common stock due to investors' perception that conflicts of interest may exist or arise.

We have never paid dividends on our capital stock and we do not anticipate paying any cash dividends in the foreseeable future.

We have never declared or paid cash dividends on our capital stock. We do not anticipate paying any cash dividends on our capital stock in the foreseeable future. We currently intend to retain all available funds and any future earnings to fund the development and growth of our business. As a result, capital appreciation, if any, of our common stock will be our stockholders' sole source of gain for the foreseeable future.

We are at risk of securities class action litigation.

In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because biotechnology companies have experienced greater than average stock price volatility in recent years. These broad market fluctuations may adversely affect the trading price or liquidity of our common stock. In the past, when the market price of a stock has been volatile, holders of that stock have sometimes instituted securities class action litigation against the issuer. If any of our stockholders were to bring such a lawsuit against us, we could incur substantial costs defending the lawsuit and the attention of our management would be diverted from the operation of our business.

ITEM 1B. *UNRESOLVED STAFF COMMENTS*

None.

ITEM 2. *PROPERTIES*

In December 2006, we leased 15,000 square feet of office space in a building at 395 Oyster Point Boulevard in South San Francisco, California, which is currently our corporate headquarters. This lease expires in April 2013, subject to our option to extend the lease through February 2014. In October 2008, we leased 5,500 square feet of laboratory space at 349 Allerton Avenue, South San Francisco, California. This lease expired in October 2010 and we did not exercise our option to extend the lease. We believe that our current facility will be sufficient to meet our needs through at least 2011.

ITEM 3. *LEGAL PROCEEDINGS*

From time to time, we may be involved in routine legal proceedings, as well as demands, claims and threatened litigation, which arise in the normal course of our business. The ultimate outcome of any litigation is uncertain and unfavorable outcomes could have a negative impact on our results of operations and financial condition. Regardless of outcome, litigation can have an adverse impact on us because of the defense costs, diversion of management resources and other factors.

We believe there is no litigation pending that could, individually or in the aggregate, have a material adverse effect on our results of operations or financial condition.

ITEM 4. *(REMOVED AND RESERVED)*

PART II

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

Our common stock is listed on The NASDAQ Capital Market under the symbol "SNSS." From our initial public offering on September 27, 2005 until August 3, 2009 our common stock was listed on The NASDAQ Global Market under the same symbol. The following table sets forth the range of the high and low sales prices by quarter, as reported by NASDAQ, after giving retroactive effect to the one-for-six reverse split of shares of our capital stock, or the Reverse Split, outstanding immediately prior to the effective time of the Reverse Split on February 14, 2011.

Year-Ended December 31, 2009	**High**	**Low**
First Quarter	$ 3.03	$0.96
Second Quarter	$ 5.40	$0.30
Third Quarter	$ 3.36	$1.57
Fourth Quarter	$14.58	$1.62
Year-Ended December 31, 2010	**High**	**Low**
First Quarter	$ 9.72	$4.26
Second Quarter	$ 7.38	$2.64
Third Quarter	$ 3.30	$2.22
Fourth Quarter	$ 3.69	$1.75

As of February 18, 2011, there were approximately 179 holders of record of our common stock. In addition, we believe that a significant number of beneficial owners of our common stock hold their shares in nominee or in "street name" accounts through brokers. On March 15, 2011, the last sale price reported on The NASDAQ Capital Market for our common stock was $1.88 per share.

Dividend Policy

We have never paid cash dividends on our common stock. We do not anticipate paying any cash dividends on our capital stock in the foreseeable future. While subject to periodic review, the current policy of our board of directors is to retain cash and investments primarily to provide funds for our future growth.

Unregistered Sales of Equity Securities

In March 2009, we entered into a securities purchase agreement with accredited investors, including certain members of management, providing for the private placement of up to $15.0 million of units consisting of Series A convertible preferred stock and warrants to purchase common stock, and up to $28.5 million in common stock, in three closings, or the Private Placement. On April 3, 2009, we sold $10.0 million of units consisting of shares of our Series A convertible preferred stock and warrants to purchase our common stock in the initial closing of the Private Placement. On October 30, 2009, we sold $5.0 million of units in the second closing. On June 30, 2010, we sold $28.5 million of common stock in the third and final closing of the Private Placement. Aggregate net proceeds from the Private Placement were $40.1 million. The sales were to accredited investors, including certain members of management, and were exempt from the registration requirements of the Securities Act of 1933, as amended, pursuant to Rule 506 of Regulation D promulgated thereunder.

In connection with the initial closing, we issued 483,081 shares of Series A convertible preferred stock to the investors, which were initially convertible into 4,830,901 shares of common stock, and warrants to purchase 4,830,901 shares of common stock. In connection with the second closing, we issued 241,537 shares of Series A convertible preferred stock to the investors, which were initially convertible into 2,415,438 shares of common

stock, and warrants to purchase 2,415,438 shares of common stock. The warrants to purchase common stock may be exercised at the election of the holder at any time during their term of seven years from the date of issuance. During the year ended December 31, 2010, a total of 1,764,322 shares of common stock were issued upon the exercise of warrants issued in the Private Placement. As of March 15, 2011, 4,592,123 shares of common stock remained available for issuance upon the exercise of warrants issued in the Private Placement.

In connection with the third and final closing of the Private Placement, we issued 17,272,716 shares of common stock to the investors at a purchase price of $1.65 per share. In conjunction with this closing, each of the outstanding shares of Series A convertible preferred stock issued in the initial and second closings of the Private Placement was converted into 10 shares of common stock, and as a result, an additional 7,246,339 shares of common stock were issued on June 30, 2010.

We have used, and expect to use, the aggregate net proceeds of $40.1 million for working capital and other general corporate purposes.

ITEM 6. *SELECTED FINANCIAL DATA*

The following selected financial data should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and notes to those statements included elsewhere in this report.

	Year Ended December 31,				
Consolidated Statement of Operations:	**2010**	**2009**	**2008**	**2007**	**2006**
	(In thousands, except shares and per share amounts)				
Revenue:					
Collaboration revenue	$ 27	$ 1,550	$ 4,917	$ 9,163	$ 13,671
License and other revenue	6	2,212	500	500	38
Total revenues	33	3,762	5,417	9,663	13,709
Operating expenses:					
Research and development	14,434	13,247	26,285	36,060	35,615
General and administrative	7,005	7,748	11,524	13,570	12,255
Restructuring charges	—	1,916	5,783	1,563	—
Total operating expenses	21,439	22,911	43,592	51,193	47,870
Loss from operations	(21,406)	(19,149)	(38,175)	(41,530)	(34,161)
Other income (expense), net(1)	(3,181)	(21,077)	989	2,769	2,924
Net loss	(24,587)	(40,226)	(37,186)	(38,761)	(31,237)
Deemed distribution to preferred stockholders(2)	—	(27,563)	—	—	—
Loss attributable to common stockholders	$ (24,587)	$ (67,789)	$ (37,186)	$ (38,761)	$ (31,237)
Basic and diluted loss attributable to common stockholders per common share	$ (0.99)	$ (11.80)	$ (6.49)	$ (7.19)	$ (6.75)
Shares used in computing basic and diluted loss attributable to common stockholders per common share	24,860,212	5,746,786	5,731,196	5,390,034	4,626,391

(1) In December 2010, we recorded a non-cash charge of $3.7 million to revalue the liability for warrants issued in connection with the underwritten offering in October 2010 (see Note 9 of the accompanying consolidated financial statements).

During 2009, we recorded non-cash charges of $21.0 million related to the accounting for the fair values of securities issued as part of the Private Placement (see Note 9 of the accompanying consolidated financial statements). The non-cash charges consisted of $7.5 million recorded upon the initial closing of $10.0 million of units in April 2009 and $13.5 million upon the revaluation in June 2009 of the options to participate in the second closing of $5.0 million of units and the third closing of up to $28.5 million of common stock, which occurred in October 2009 and June 2010, respectively.

(2) During 2009, we recorded deemed distributions to preferred stockholders totaling $27.6 million, related to the accounting for the Private Placement. Of this amount, $26.4 million was due to the revaluation of certain securities upon an amendment of the Private Placement agreements in June 2009, and $1.2 million was due to the write-off of a discount for a beneficial conversion feature on the convertible preferred stock issued as part of the second closing of the Private Placement in October 2009.

	As of December 31,				
Consolidated Balance Sheet Data:	**2010**	**2009**	**2008**	**2007**	**2006**
			(In thousands)		
Cash, cash equivalents and marketable securities	$ 53,396	$ 4,259	$ 10,619	$ 47,684	$ 63,105
Working capital	42,118	1,807	5,371	39,707	55,279
Total assets	54,858	5,169	12,784	53,246	69,276
Long-term portion of equipment leases	—	—	—	1,353	956
Convertible preferred stock	—	60,005	—	—	—
Common stock and additional paid-in capital	423,267	298,473	322,675	320,583	298,077
Accumulated deficit	(381,005)	(356,418)	(316,192)	(279,006)	(240,245)
Total stockholders' equity	42,247	2,060	6,491	41,394	56,804

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

The following discussion and analysis of our financial condition as of December 31, 2010 and results of operations for the year ended December 31, 2010 should be read together with our consolidated financial statements and related notes included elsewhere in this report. This discussion and analysis contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, that involve risks, uncertainties and assumptions. All statements, other than statements of historical facts, are "forward-looking statements" for purposes of these provisions, including without limitation any statements relating to our strategy, including our plans with respect to presenting clinical data and initiating clinical trials, our future research and development activities, including clinical testing and the costs and timing thereof, sufficiency of our cash resources, our ability to raise additional funding when needed, any statements concerning anticipated regulatory activities or licensing or collaborative arrangements, our research and development and other expenses, our operations and legal risks, and any statement of assumptions underlying any of the foregoing. In some cases, forward-looking statements can be identified by the use of terminology such as "anticipates," "believe," "continue," "estimates," "expects," "intend," "look forward," "may," "could," "seeks," "plans," "potential," or "will" or the negative thereof or other comparable terminology. Although we believe that the expectations reflected in the forward-looking statements contained herein are reasonable, there can be no assurance that such expectations or any of the forward-looking statements will prove to be correct, and actual results could differ materially from those projected or assumed in the forward-looking statements. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of many factors, including but not limited to those set forth under "Risk Factors," and elsewhere in this report. We urge you not to place undue reliance on these forward-looking statements, which speak only as of the date of this report. All forward-looking statements included in this report are based on information available to us on the date of this report, and we assume no obligation to update any forward-looking statements contained in this report.

Overview

We are a biopharmaceutical company focused on the development and commercialization of new oncology therapeutics for the treatment of hematologic and solid tumor cancers. Our efforts are currently focused primarily on the development of vosaroxin (formerly voreloxin) for the treatment of acute myeloid leukemia, or AML. We have built a highly experienced cancer drug development organization committed to advancing our lead product candidate, vosaroxin, in multiple indications to improve the lives of people with cancer.

Vosaroxin is a first-in-class anti-cancer quinolone derivative, or AQD—a class of compounds that has not been used previously for the treatment of cancer. Quinolone derivatives have been shown to mediate anti-tumor activity by targeting mammalian topoisomerase II, an enzyme critical for cell replication. We own worldwide development and commercialization rights to vosaroxin.

In December 2010, we commenced enrollment of a Phase 3, multi-national, randomized, double-blind, placebo-controlled, pivotal trial of vosaroxin in combination with cytarabine in patients with relapsed or refractory AML, or the VALOR trial. The VALOR trial is designed to evaluate the effect of vosaroxin in combination with cytarabine, a widely used chemotherapy in AML, on overall survival as compared to placebo in combination with cytarabine. The trial design is based on data from our Phase 2 clinical trial of vosaroxin in combination with cytarabine in first relapsed or primary refractory AML, together with guidance received from both U.S. and European regulatory agencies.

With an anticipated 450 evaluable patients, the trial is designed to have a 90% probability of detecting a 40% difference in overall survival. The trial includes a single pre-specified interim analysis by the independent Data Safety Monitoring Board, or DSMB, that may recommend a one-time sample size adjustment of 225 additional evaluable patients if deemed beneficial by the DSMB to maintain adequate power across a range of

clinically meaningful and statistically significant survival outcomes. In February 2011, the FDA granted fast track designation to vosaroxin for the potential treatment of relapsed or refractory AML in combination with cytarabine.

We are also in the survival follow-up stage of two fully-enrolled clinical trials of vosaroxin: (a) the Phase 2 portion of a Phase 1b/2 trial of vosaroxin in combination with cytarabine for the treatment of patients with first relapsed or primary refractory AML, and (b) a Phase 2 trial (known as REVEAL-1) in previously untreated elderly patients with AML, which explored three different dose schedules. In addition, we completed a Phase 2 single agent trial of vosaroxin in platinum-resistant ovarian cancer patients in 2010, which explored three different dose cohorts. The most recent data from the AML studies were presented at the Chemotherapy Foundation Symposium XXVIII in November 2010, and the most recent data from the ovarian cancer study were presented at the American Society of Clinical Oncology 2010 Annual Meeting in June 2010.

In 2009, the U.S. Food and Drug Administration, or FDA, granted orphan drug designation to vosaroxin for the treatment of AML. In July 2010, we announced that the European Patent Office, or EPO, had granted us a patent covering combinations of vosaroxin with cytarabine. The patent provides coverage to 2025 for such combination products in 30 member states of the European Patent Convention. In November 2010, we announced that the U.S. Patent and Trademark Office had granted us a patent covering pharmaceutical compositions of vosaroxin, and in March 2011, we announced that the EPO had granted us a similar patent, which we are proceeding to validate in multiple EPO member states. These patents cover the formulation used in our VALOR trial and extend vosaroxin's patent life to 2025. Related patent applications are pending in other major markets throughout the world, including Japan, Australia and Canada.

Recent Financial History

In March 2009, we entered into a securities purchase agreement with accredited investors, including certain members of management, providing for the private placement of up to $15.0 million of units consisting of Series A convertible preferred stock and warrants to purchase common stock, and up to $28.5 million in common stock, in three closings, or the Private Placement. We completed the initial closing of $10.0 million in April 2009, resulting in net proceeds of $8.8 million, and the second closing of $5.0 million in October 2009, for net proceeds of $4.7 million. In June 2010, we completed the third and final closing of the Private Placement, issuing 17.3 million shares of common stock to the investors at a purchase price of $1.65 per share, for net proceeds of $26.7 million. In conjunction with this closing, each of the 0.7 million outstanding shares of Series A convertible preferred stock issued in the initial and second closings of the Private Placement was converted into 10 shares of common stock, and as a result, 7.2 million shares of common stock were issued in June 2010.

In January 2010, we entered into our first controlled equity offering sales agreement with Cantor Fitzgerald & Co., or Cantor, pursuant to which we could issue and sell shares of our common stock having an aggregate offering price of up to $15.0 million from time to time through Cantor acting as agent and/or principal, subject to certain conditions. Under this facility, we sold an aggregate of 2.6 million shares of common stock in 2010 at an average price of $5.67 per share for gross proceeds of $15.0 million. Net proceeds were $14.2 million after deducting Cantor's commission and costs to set up the facility. No further shares of common stock can be issued under this facility.

In April 2010, we entered into a second controlled equity offering sales agreement with Cantor, pursuant to which we may issue and sell shares of our common stock having an aggregate offering price of up to $20.0 million from time to time through Cantor acting as agent and/or principal. As of March 15, 2011, we had sold an aggregate of 3.7 million shares of common stock at an average price of $4.32 per share for gross proceeds of $16.0 million. Net proceeds were $15.4 million after deducting Cantor's commission and costs to set up the facility. As of March 15, 2011, $4.0 million of common stock was available to be sold under this facility, subject to certain conditions as specified in the agreement.

In October 2010, we completed an underwritten offering, pursuant to which we issued an aggregate of 7.4 million shares of our common stock and warrants to purchase 3.7 million shares of our common stock, for aggregate gross proceeds of $15.5 million, or the 2010 Offering. Net proceeds from the sale were $14.2 million, after deducting the underwriting discount and offering expenses. The warrants are exercisable beginning six months after issuance at an exercise price of $2.52 per share, and expire five years from the date of issuance.

On February 14, 2011, we effected a one-for-six reverse split of our capital stock, or the Reverse Split, as previously authorized and approved at our annual meeting of stockholders on June 2, 2010. As a result of the Reverse Split, every six shares of our capital stock were combined into one share of capital stock. The Reverse Split affected all our common stock outstanding immediately prior to the effective time of the Reverse Split as well as the number of shares of common stock available for issuance under our equity incentive plans. In addition, the Reverse Split effected a reduction in the number of shares of common stock issuable upon the exercise of outstanding stock options and warrants. Immediately following the Reverse Split, 45,989,737 shares of our common stock were outstanding. All share and per share amounts in this Annual Report on Form 10-K have been adjusted to give effect to the Reverse Split.

We have incurred significant losses in each year since our inception. As of December 31, 2010, we had cash, cash equivalents and marketable securities of $53.4 million and an accumulated deficit of $381.0 million. We expect to continue to incur significant losses for the foreseeable future, as we continue the development of, and seek regulatory approvals for vosaroxin.

On March 31, 2010, we received a letter from the NASDAQ Listing Qualifications Staff, or the Staff, notifying us that we did not comply with the minimum $1.00 per share closing bid price requirement, or the Bid Price Requirement, for a continued listing on The NASDAQ Capital Market. In accordance with NASDAQ Listing Rules, we were given until September 27, 2010 to regain compliance. On September 28, 2010, we received a second letter from the Staff notifying us of its determination that we had failed to regain compliance with the Bid Price Requirement by September 27, 2010, but that we met all other initial inclusion criteria for The NASDAQ Capital Market set forth in NASDAQ Listing Rule 5505. As a result, in accordance with NASDAQ Listing Rules, we were granted an additional 180 calendar days, or until March 28, 2011, to regain compliance. To regain compliance, the bid price of our common stock needed to close at or above $1.00 for at least 10 consecutive business days at any time prior to March 28, 2011. Our common stock began trading on The NASDAQ Capital Market on a post-Reverse Split basis on February 15, 2011. Subsequently, the bid price of our common stock closed at or above $1.00 for the 10 consecutive business days ended March 1, 2011, and on March 2, 2011, we received a letter from NASDAQ notifying us that we had regained compliance with the Bid Price Requirement.

Capital Requirements

While we believe that we currently have the resources available and accessible to fund our operations until the planned unblinding of the VALOR trial in 2013, we will need to raise substantial additional capital to complete development and the potential commercialization of vosaroxin. To the extent that the costs of the VALOR trial exceed our current estimates, unblinding does not occur within the currently anticipated timeframe or we are unable to raise sufficient additional capital through our controlled equity offering facility or otherwise, we will need to reduce operating expenses, enter into a collaboration or other similar arrangement with respect to development and/or commercialization rights to vosaroxin, outlicense intellectual property rights to vosaroxin, sell assets, or a combination of the above. We will also need to raise substantial additional capital if we expand the number of patients included in the trial based on the pre-specified interim analysis of data from the trial by the DSMB. In addition, we will need to raise substantial additional capital to complete the development and potential commercialization of vosaroxin.

We expect to finance our future cash needs primarily through equity issuances, debt arrangements, a possible license, collaboration or other similar arrangement with respect to development and/or

commercialization rights to vosaroxin, or a combination of the above. However, we do not know whether additional funding will be available on acceptable terms, or at all. If we are unable to raise substantial additional funding on acceptable terms or at all, we will be forced to delay or reduce the scope of our vosaroxin development program, potentially including the VALOR trial, and/or limit or cease our operations.

Critical Accounting Policies and the Use of Estimates

The accompanying discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements and the related disclosures, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these consolidated financial statements requires our management to make estimates, assumptions and judgments that affect the amounts reported in our financial statements and accompanying notes, including reported amounts of assets, liabilities and expenses and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements, as well as revenue and expenses during the reporting periods. We evaluate our estimates, assumptions and judgments on an ongoing basis. We base our estimates on historical experience and on various other assumptions we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Management has discussed the development, selection and disclosure of these estimates with the Audit Committee of our Board of Directors. Actual results could differ materially from these estimates under different assumptions or conditions.

Our significant accounting policies are more fully described in Note 1 to our consolidated financial statements included elsewhere in this report. We believe the following critical accounting policies reflect our more significant estimates and assumptions used in the preparation of our consolidated financial statements.

Accounting for Equity Financings

The accounting for the initial and second closing of the sale of $10.0 million and $5.0 million of units, respectively, under our Private Placement, and subsequent revaluations of the related financial instruments, required fair values to be established at different dates, either individually or in aggregate, for the four primary components of the Private Placement: (a) the Series A convertible preferred stock, (b) the warrants to purchase common stock, (c) the option for the investors to participate in the second closing, or the Second Closing Option, and (d) the option for the investors to participate in the common equity closing, or the Common Equity Closing Option. The Option-Pricing Method, which utilizes the Black-Scholes model, was selected to determine these fair values, which were calculated as a series of call options on the potential enterprise value of the company at different valuation points at which the claims of the different stakeholder groups on the enterprise value would change. The results of the Black-Scholes model were affected by the company's stock price, as well as assumptions regarding a number of highly subjective variables. These variables included the expected term of the financial instruments and our expected stock price volatility, risk-free interest rate and dividend rate over the expected term. Alternative models could have been selected to calculate these fair values, which may have produced significantly different results.

In October 2010, we completed the 2010 Offering, in which we sold our common stock and warrants to purchase our common stock for aggregate gross proceeds of $15.5 million. Due to the potential for the warrants to be settled in cash upon the occurrence of certain transactions specified in the warrant agreements, the warrants are being accounted for as a derivative liability as opposed to permanent equity. Outstanding warrants under this arrangement are revalued to their fair value each period end, with the change in fair value recorded to other income (expense) in the statement of operations. The Black-Scholes model was selected as the most appropriate method to estimate both the initial and subsequent fair values of the warrants. The determination of initial and subsequent fair values is affected by our stock price as well as assumptions regarding a number of highly complex and subjective variables, as noted above. Changes in these input variables have, and will continue to, affect the income or expense recorded each period for the revaluation of outstanding warrants. As a result, fluctuations in our stock price or other input variables may significantly affect our financial results.

Revenue Recognition

Revenue arrangements with multiple deliverables are accounted for in accordance with Financial Accounting Standards Board Accounting Standards Codification Subtopic 605-25, *Multiple-Element Arrangements*, or ASC 605-25. Under ASC 605-25, revenue arrangements with multiple deliverables are divided into separate units of accounting based on whether certain criteria are met, including whether the delivered item has stand-alone value to the customer and whether there is objective and reliable evidence of the fair value of the undelivered items. Consideration is allocated among the separate units of accounting based on their respective fair value, and the applicable revenue recognition is applied to each of the separate units.

Non-refundable fees where we have no continuing performance obligations are recognized as revenues when collection is reasonably assured. In situations where continuing performance obligations exist, nonrefundable fees are deferred and recognized ratably over the projected performance period.

Research funding from collaborations is recognized as revenue as the related research services are performed. This funding is generally based on a specified amount per full-time equivalent employee per year.

Milestone payments which are substantive and at risk at the time of the execution of the collaboration agreement, are recognized upon completion of the applicable milestone event. Any future royalty revenue will be recognized based on reported product sales by third-party licensees.

Clinical Trial Accounting

We record accruals for estimated clinical trial costs, which include payments for work performed by contract research organizations, or CROs, and participating clinical trial sites. These costs are generally a significant component of research and development expenses. Costs incurred for setting up clinical trial sites for participation in trials are generally non-refundable, and are expensed immediately, with any refundable advances related to enrollment of the first patient recorded as prepayments and assessed for recoverability on a quarterly basis. Costs related to patient enrollment are accrued as patients progress through the clinical trial, including amortization of any first-patient prepayments. This amortization generally matches when the related services are rendered, however, these cost estimates may or may not match the actual costs incurred by the CROs or clinical trial sites, and if we have incomplete or inaccurate information, our clinical trial accruals may not be accurate. The difference between accrued expenses based on our estimates and actual expenses have not been material to date.

Overview of Revenues

We have not generated any revenue from sales of commercial products and do not expect to generate any product revenue in the foreseeable future.

Collaboration Revenue

Over the past three years, we have generated revenue primarily through collaborations with Biogen Idec, J&JPRD and Merck, consisting principally of research funding and milestones paid by our collaborators, substantially offsetting our related research and development expenses. Our collaborations with J&JPRD and Merck terminated in January 2010 and June 2010, respectively.

Under our collaboration agreement with Biogen Idec, we may in the future receive pre-commercialization milestone payments of up to $60.5 million per target, as well as royalty payments depending on product sales. Potential total royalty payments may be increased if we exercise our option to co-develop and co-promote product candidates for up to two targets worldwide (excluding Japan) and may be reduced if Biogen Idec is required to in-license additional intellectual property related to certain technology jointly developed under the collaboration agreement in order to commercialize a collaboration product.

In November 2010, Biogen Idec announced that it will seek to spin out or outlicense certain oncology assets, including this collaboration agreement. We cannot predict the outcome of this strategic decision by Biogen Idec or its impact on future development activity under the collaboration agreement or on our prospects for the receipt of milestone or royalty payments under the collaboration agreement. We expect that a Phase 1 clinical trial will be initiated in 2011 for the Raf kinase inhibitor program.

License and other revenue

In March 2009, SARcode acquired our interest in all of its LFA-1 patents and related know-how for a total cash consideration of $2.0 million, which was recorded as revenue in April 2009. In connection with the sale, the license agreement was terminated and we will not receive any future license fees, milestones or royalties under that license. We still hold three secured convertible promissory notes issued under the original license agreement, with a total principal value of $1.0 million, which are due in 2012 and are convertible into the preferred stock of SARcode at our option. We have yet to record the amount represented by these notes as revenue, due to uncertainty of their collectibility.

Overview of Operating Expenses

Research and development expense. Most of our operating expenses to date have been for research and development activities, and include costs incurred:

- in the preparation and execution of clinical trials, including those for vosaroxin;
- in the discovery and development of novel small molecule therapeutics;
- in the development of novel fragment-based drug discovery methods;
- in the development and use of in-house research, preclinical study and development capabilities;
- in connection with in-licensing activities; and
- in the conduct of activities related to strategic collaborations.

We expense all research and development costs as they are incurred.

We do not anticipate incurring any significant additional research expenses related to the discovery of additional product candidates, the development or application of our proprietary fragment-based drug discovery methods, or the development of in-house research capabilities. In addition, we are no longer conducting any research activities in connection with our collaborations.

In December 2010, we commenced enrollment of the VALOR trial. Payments to sites for start-up costs and patient treatment are expected to increase in 2011 as sites are activated to enroll patients. Similarly, costs incurred by our contract research organization and other third party contractors, including the contract manufacturers of the vosaroxin API and FDP, in the execution of the trial are expected to increase in 2011. As a result, we expect research and development expense to be significantly higher in 2011 as compared to 2010.

We are currently developing vosaroxin in AML. Based on results of translational research, clinical results, regulatory and competitive concerns and our overall financial resources, we anticipate that we will make determinations as to which indications to pursue and patient populations to treat in the future, and how much funding to direct to each indication on an ongoing basis. This will affect our research and development expense going forward.

If we engage a development or commercialization partner for our vosaroxin program, or if, in the future, we acquire additional product candidates, our research and development expenses could be significantly affected. We cannot predict whether future licensing or collaborative arrangements will be secured, if at all, and to what degree such arrangements would affect our development plans and capital requirements.

As of December 31, 2010, we had incurred $78.1 million of expenses in the development of vosaroxin since it was licensed from Dainippon Sumitomo Pharma Co., Ltd., or Dainippon, in October 2003. We expect to continue to incur significant expenses related to the development of vosaroxin in 2011 and future years. Due to the above uncertainties and other risks inherent in the development process, we are unable to estimate the significant costs we will incur in the vosaroxin development program.

Under our collaboration agreement with Biogen Idec, we have the right to participate in the co-development and co-promotion of product candidates for up to two targets including, at our option, the Raf kinase target, on a worldwide basis (excluding Japan). If we were to exercise our option on one or more product candidates, our research and development expense would increase significantly. In November 2010, Biogen Idec announced that it will seek to spin out or outlicense certain oncology assets, including this collaboration agreement. We cannot predict the outcome of this strategic decision by Biogen Idec or its impact on future development activity under the collaboration agreement. We expect that a Phase 1 clinical trial will be initiated in 2011 for the Raf kinase inhibitor program.

General and administrative expense. Our general and administrative expense consists primarily of salaries and other related costs for personnel in finance, legal, marketing, information technology, administration and general management, as well as non-cash stock-based compensation. Other significant costs include fees paid to professional services providers and those related to facilities. In 2011, we expect general and administrative expense to be generally comparable to 2010.

Results of Operations

Years Ended December 31, 2010 and 2009

Revenue. Total revenue decreased to $33,000 in 2010 from $3.8 million in 2009. Collaboration revenue of $1.6 million in 2009 was primarily comprised of a $1.5 million milestone earned from Biogen Idec's selection of a Raf kinase inhibitor development candidate for the treatment of cancer. License and other revenue of $2.2 million in 2009 was primarily comprised of $2.0 million from the sale to SARcode Corporation of our interest in all patents and related know-how that had previously been the subject of a license agreement with them.

Research and development expense. Research and development expense increased to $14.4 million in 2010 from $13.2 million in 2009, with substantially all of the expense in each period relating to the vosaroxin development program. The increase in 2010 was primarily due to an increase in clinical expenses, primarily related to the launch of the VALOR trial, of $1.0 million and the accrual of a $0.5 million milestone payment due to Dainippon as a result of the initiation of the VALOR trial in December 2010, which we partially offset by a reduction in facility costs of $0.3 million.

General and administrative expense. General and administrative expense decreased to $7.0 million in 2010 from $7.7 million in 2009. The decrease in 2010 was primarily due to a restructuring plan initiated in March 2009, or the 2009 Restructuring, which resulted in a reduction of $0.8 million in headcount-related expenses, including $0.5 million related to non-cash stock compensation expense.

Restructuring charges. There were no restructuring charges in 2010. Restructuring charges were $1.9 million in 2009, which included $1.3 million for lease termination activities related to a corporate realignment initiated in June 2008, or the 2008 Restructuring, and $0.6 million for employee severance and related benefit costs related to the 2009 Restructuring.

Other income (expense), net. Other expense, net was $3.2 million in 2010 as compared to $21.1 million in 2009. The net expense in 2010 was primarily due to a non-cash charge of $3.7 million for the revaluation of warrants issued in the 2010 Offering to their fair value as of December 31, 2010, partially offset by the receipt of a tax credit of $0.2 million under the IRS Qualifying Therapeutic Discovery Project program. The net expense in 2009 was primarily due to non-cash charges of $21.0 million related to the accounting for the Private Placement, which consisted of $7.5 million recorded upon the initial closing in April 2009 and $13.5 million upon the revaluation in June 2009 of the Second Closing Option and Common Equity Closing Option.

Years Ended December 31, 2009 and 2008

Revenue. Total revenue decreased to $3.8 million in 2009 from $5.4 million in 2008. Collaboration revenue decreased to $1.6 million in 2009 from $4.9 million in 2008, primarily due to the completion of research funding and technology access fee amortization under the Biogen Idec collaboration in June 2008, partially offset by an increase in milestone revenue in 2009 as a result of a $1.5 million milestone from Biogen Idec, as described above. License and other revenue increased to $2.2 million in 2009 from $0.5 million in 2008, primarily due to the sale to SARcode of certain intellectual property, as described above.

Research and development expense. Research and development expense decreased to $13.2 million in 2009 from $26.3 million in 2008. The decrease was primarily due to the 2008 Restructuring, which resulted in decreases in headcount-related expenses of $4.2 million, allocated facility costs of $3.3 million, clinical expenses of $2.6 million and professional service costs of $1.8 million.

General and administrative expense. General and administrative expense decreased to $7.7 million in 2009 from $11.5 million in 2008. The decrease was primarily due to the 2008 Restructuring and the 2009 Restructuring, which together resulted in decreases in headcount-related expenses of $2.1 million, facility costs of $0.9 million and a reduction in professional service costs of $0.5 million.

Restructuring charges. Restructuring charges were $1.9 million in 2009 as compared to $5.8 million in 2008. The charges for 2009 are described above. The 2008 charges were primarily comprised of $5.9 million related to the 2008 Restructuring, which consisted of $3.6 million for employee severance and related benefit costs, including non-cash stock-based compensation of $0.4 million, and $2.3 million related to asset impairment and facility exit costs.

Other income (expense), net. Other expense, net was $21.1 million in 2009 as compared to other income, net of $1.0 million in 2008. The net expense in 2009 was primarily due to non-cash charges of $21.0 million related to the accounting for the Private Placement, as described above. The net income in 2008 primarily related to interest income.

Income Taxes

Deferred tax assets or liabilities may arise from differences between the tax basis of assets or liabilities and their basis for financial reporting. Deferred tax assets or liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which temporary differences are expected to be recovered or settled. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized. Our policy is to recognize interest charges and penalties as other expense.

Since inception, we have incurred operating losses and, accordingly, have not recorded a provision for income taxes for any of the periods presented. As of December 31, 2010, we had net operating loss carry-forwards for federal and state income tax purposes of $253.6 million and $155.6 million, respectively. We also had federal and state research and development tax credit carry-forwards of $5.8 million and $5.6 million, respectively. If not utilized, the federal net operating loss and tax credit carry-forwards will expire at various dates beginning in 2018 and the state net operating loss will begin to expire in 2012. The state research and

development tax credit carry-forwards do not expire. Utilization of these net operating loss and tax credits carry-forwards may be subject to a substantial annual limitation due to ownership change rules under Section 382 of the Internal Revenue Code of 1986, as amended, or the Code. The limitations are applicable if an "ownership change," as defined in the Code, is deemed to have occurred or occurs in the future. The annual limitation may result in the expiration of net operating loss and credit carry-forwards before they can be utilized.

Liquidity and Capital Resources

Sources of Liquidity

Since our inception, we have funded our operations primarily through the issuance of common and preferred stock, the receipt of funds from our collaboration partners, and from debt financings.

Our cash, cash equivalents and marketable securities totaled $53.4 million as of December 31, 2010, compared to $4.3 million as of December 31, 2009. The increase of $49.1 million was primarily due to net proceeds of $27.5 million from sales of our common stock through Cantor, $26.7 million from the third closing of the Private Placement, and $14.2 million from the 2010 Offering, partially offset by $19.4 million of net cash used in operating activities.

In January 2010, we entered into our first controlled equity offering sales agreement with Cantor, under which we sold an aggregate of 2.6 million shares of common stock at an average price of $5.67 per share for gross proceeds of $15.0 million. Net proceeds were $14.2 million after deducting Cantor's commission and costs to set up the facility.

In April 2010, we entered into a second controlled equity offering sales agreement with Cantor, pursuant to which we may issue and sell shares of our common stock having an aggregate offering price of up to $20.0 million from time to time through Cantor acting as agent and/or principal, subject to certain conditions. Cantor is entitled to a 3% commission rate of the gross sales price per share of any common stock sold through Cantor as agent under the sales agreement. As of December 31, 2010, we had sold an aggregate of 3.1 million shares of common stock at an average price of $4.60 per share for gross proceeds of $14.2 million. Net proceeds were $13.7 million after deducting Cantor's commission and costs to set up the facility, of which $0.4 million was received upon settlement in January 2011. As of December 31, 2010, $5.8 million of common stock was available to be sold under this facility, subject to certain conditions as specified in the agreement.

In June 2010, we completed the third and final closing of the Private Placement, issuing 17.3 million shares of common stock to the investors at a purchase price of $1.65 per share, for gross proceeds of $28.5 million and net proceeds of $26.7 million.

In October 2010, we completed the 2010 Offering, pursuant to which we issued an aggregate of 7.4 million shares of our common stock and warrants to purchase 3.7 million shares of our common stock, for aggregate gross proceeds of $15.5 million. Net proceeds from the sale were $14.2 million, after deducting the underwriting discount and offering expenses. The warrants are exercisable beginning six months after issuance at an exercise price of $2.52 per share, and expire five years from the date of issuance.

Cash Flows

Net cash used in operating activities was $19.4 million in 2010, compared to $20.2 million used in 2009 and $35.5 million in 2008. Net cash used in 2010 resulted primarily from the net loss of $24.6 million, partially offset by net adjustments for non-cash items of $4.5 million (including $3.7 million of charges related to the 2010 Offering). Net cash used in 2009 resulted primarily from the net loss of $40.2 million, and changes in operating assets and liabilities of $1.3 million, partially offset by net adjustments for non-cash items of $21.4 million (including $21.0 million of charges related to the Private Placement and $1.3 million of stock-based

compensation, partially offset by a $1.4 million credit for deferred rent related to the 2008 Restructuring). Net cash used in 2008 resulted primarily from the net loss of $37.2 million, and changes in operating assets and liabilities of $3.0 million (including decreases of $1.2 million in deferred revenue and $1.7 million in accrued compensation), partially offset by adjustments for non-cash items of $4.8 million (including $1.9 million of restructuring charges, $1.9 million of stock-based compensation and $1.1 million of depreciation and amortization).

Net cash used in investing activities was $39.1 million in 2010, compared to $4.7 million and $32.3 million provided by investing activities in 2009 and 2008, respectively. Net cash used in 2010 consisted primarily of net outflows from marketable securities transactions. Net cash provided in 2009 consisted primarily of net proceeds from marketable securities transactions of $4.3 million. Net cash provided in 2008 consisted primarily of net proceeds from marketable securities transactions of $31.6 million.

Net cash provided by financing activities was $68.4 million in 2010, compared to $13.4 million provided by financing activities in 2009, and $2.2 million used in financing activities in 2008. Net cash provided in the 2010 period consisted primarily of net proceeds of $26.7 million from the third closing of the Private Placement, $27.5 million from sales of common stock under the two controlled equity offering sales agreements with Cantor, and $14.2 million from the 2010 Offering. Net cash provided in 2009 consisted primarily of net proceeds from the initial and second closings of the Private Placement. Net cash used in 2008 consisted primarily of equipment loan repayments of $2.3 million.

Operating Cash Requirements

We expect to continue to incur substantial operating losses in the future. We will not receive any product revenue until a product candidate has been approved by the FDA or similar regulatory agencies in other countries, and has been successfully commercialized, if at all. We need to raise substantial additional funding to complete the development and potential commercialization of vosaroxin. Additionally, we may evaluate in-licensing and acquisition opportunities to gain access to new drugs or drug targets that would fit with our strategy. Any such transaction would likely increase our funding needs in the future.

Our future funding requirements will depend on many factors, including but not limited to:

- the rate of progress and cost of our clinical trials, including the VALOR trial in particular;
- the need for additional or expanded clinical trials (including in particular potential expansion of the number of patients included in the VALOR trial based on the pre-specified interim analysis of data from the trial by the DSMB);
- the timing and economic and other terms of any licensing, collaboration or other similar arrangement into which we may enter;
- the costs and timing of seeking and obtaining FDA and other regulatory approvals;
- the extent of our other development activities;
- the costs associated with building or accessing commercialization and additional manufacturing capabilities and supplies;
- the costs of acquiring or investing in businesses, product candidates and technologies, if any;
- the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;

- the effect of competing technological and market developments; and
- the costs of supporting our collaboration with Biogen Idec, if any.

We believe that we currently have the resources available and accessible to fund our operations until the planned unblinding of the VALOR trial in 2013. To the extent that the costs of the VALOR trial exceed our current estimates, unblinding does not occur within the currently anticipated timeframe or we are unable to raise sufficient additional capital through our controlled equity offering facility or otherwise, we will need to reduce operating expenses, enter into a collaboration or other similar arrangement with respect to development and/or commercialization rights to vosaroxin, outlicense intellectual property rights to vosaroxin, sell assets, or a combination of the above.

We will need to raise substantial additional capital if we expand the number of patients included in the VALOR trial based on the pre-specified interim analysis of data from the trial by the DSMB. In addition, we will need to raise substantial additional capital to complete the development and potential commercialization of vosaroxin. We expect to finance our future cash needs primarily through equity issuances, debt arrangements, a possible license, collaboration or other similar arrangement with respect to development and/or commercialization rights to vosaroxin, or a combination of the above.

Until we can generate a sufficient amount of collaboration or product revenue to finance our cash requirements, which we may never do, we expect to finance future cash needs primarily through the above means. However, we do not know whether additional funding will be available on acceptable terms, or at all. Our failure to raise significant additional capital in the future would force us to delay or reduce the scope of our vosaroxin development program, potentially including the VALOR trial, and/or limit or cease our operations. Any one of the foregoing would have a material adverse effect on our business, financial condition and results of operations.

Contractual Obligations

Our operating lease obligations as of December 31, 2010 relate solely to the lease of approximately 15,000 square feet of office space in a building at 395 Oyster Point Boulevard in South San Francisco, California, which is currently our corporate headquarters. The lease was entered into in December 2006, and expires in April 2013, subject to our option to extend the lease through February 2014.

Under our license agreement with Dainippon, we are required to make certain milestone payments in the event we file new drug applications in the United States, Europe or Japan, and if we receive regulatory approvals in any of these regions, for cancer-related indications. If vosaroxin is approved for a non-cancer indication, an additional milestone payment becomes payable to Dainippon.

We also have agreements with CROs, clinical sites and other third party contractors for the conduct of our clinical trials. We generally make payments to these entities based upon the activities they perform related to the particular clinical trial. There are generally no penalty clauses for cancellation of these agreements if notice is duly given and payment is made for work performed by the third party under the related agreement.

Off-Balance Sheet Arrangements

Since our inception, we have not had any off-balance sheet arrangements or relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or variable interest entities, which are typically established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

ITEM 7A: *QUALITATIVE AND QUANTITATIVE DISCLOSURES ABOUT MARKET RISK*

This item is not applicable to us as a smaller reporting company.

ITEM 8: *FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA*

Index to Consolidated Financial Statements

	Page
Report of Independent Registered Public Accounting Firm	50
Consolidated Balance Sheets	51
Consolidated Statements of Operations	52
Consolidated Statements of Stockholders' Equity	53
Consolidated Statements of Cash Flows	54
Notes to Consolidated Financial Statements	55

Report of Independent Registered Public Accounting Firm

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

We have audited the accompanying consolidated balance sheets of Sunesis Pharmaceuticals, Inc. as of December 31, 2010 and 2009, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2010. These financial statements are the responsibility of Sunesis Pharmaceuticals, Inc.'s management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's 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, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Sunesis Pharmaceuticals, Inc. at December 31, 2010 and 2009, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2010, in conformity with U.S. generally accepted accounting principles.

/s/ ERNST & YOUNG, LLP

Palo Alto, California
March 29, 2011

SUNESIS PHARMACEUTICALS, INC.

CONSOLIDATED BALANCE SHEETS

	December 31, 2010	December 31, 2009
ASSETS		
Current assets:		
Cash and cash equivalents	$ 14,223,388	$ 4,258,715
Marketable securities	39,172,480	—
Prepaids and other current assets	1,285,487	583,030
Total current assets	54,681,355	4,841,745
Property and equipment, net	116,188	263,111
Deposits and other assets	59,974	64,425
Total assets	$ 54,857,517	$ 5,169,281
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 415,802	$ 360,300
Accrued clinical expense	1,573,580	1,129,226
Accrued compensation	1,013,240	728,744
Other accrued liabilities	1,380,409	788,559
Current portion of deferred rent	26,267	27,943
Warrant liability	8,153,712	—
Total current liabilities	12,563,010	3,034,772
Non-current portion of deferred rent	47,838	74,105
Commitments		
Stockholders' equity:		
Convertible preferred stock, $0.0001 par value; 10,000,000 shares authorized as of December 31, 2010 and 2009; zero and 724,618 shares outstanding as of December 31, 2010 and 2009, respectively; aggregate liquidation preference of $44,999,854 as of December 31, 2009	—	60,004,986
Common stock, $0.0001 par value; 400,000,000 and 100,000,000 shares authorized as of December 31, 2010 and 2009, respectively; 45,371,654 and 5,983,725 shares issued and outstanding as of December 31, 2010 and 2009, respectively	4,537	3,590
Additional paid-in capital	423,262,099	298,469,584
Accumulated other comprehensive loss	(14,726)	—
Accumulated deficit	(381,005,241)	(356,417,756)
Total stockholders' equity	42,246,669	2,060,404
Total liabilities and stockholders' equity	$ 54,857,517	$ 5,169,281

See accompanying notes to consolidated financial statements.

SUNESIS PHARMACEUTICALS, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 31,		
	2010	2009	2008
Revenue:			
Collaboration revenue	$ 27,083	$ 1,550,000	$ 4,917,340
License and other revenue	6,000	2,211,547	500,000
Total revenues	33,083	3,761,547	5,417,340
Operating expenses:			
Research and development	14,433,777	13,246,859	26,285,294
General and administrative	7,004,909	7,748,243	11,524,198
Restructuring charges	—	1,915,316	5,782,903
Total operating expenses	21,438,686	22,910,418	43,592,395
Loss from operations	(21,405,603)	(19,148,871)	(38,175,055)
Other income (expense), net	(3,181,882)	(21,077,175)	989,428
Net loss	(24,587,485)	(40,226,046)	(37,185,627)
Deemed distribution to preferred stockholders	—	(27,563,400)	—
Loss attributable to common stockholders	$(24,587,485)	$(67,789,446)	$(37,185,627)
Basic and diluted loss attributable to common stockholders per common share	$ (0.99)	$ (11.80)	$ (6.49)
Shares used in computing basic and diluted loss attributable to common stockholders per common share	24,860,212	5,746,786	5,731,196

See accompanying notes to consolidated financial statements.

SUNESIS PHARMACEUTICALS, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Deferred Stock Compensation	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount					
Balance as of December 31, 2007	—	$ —	5,727,442	$ 3,437	320,579,240	$(251,601)	$ 69,262	$(279,006,083)	$ 41,394,255
Issuance of common stock under employee stock purchase plan	—	—	7,467	4	66,572	—	—	—	66,576
Issuance of common stock to employees	—	—	11	—	—	—	—	—	—
Stock-based compensation expense—employees	—	—	—	—	1,686,827	—	—	—	1,686,827
Stock-based compensation expense—non-employees	—	—	—	—	828	—	—	—	828
Stock-based compensation expense—restructuring	—	—	—	—	366,637	—	—	—	366,637
Reversal of deferred stock-based compensation	—	—	—	—	(28,500)	28,500	—	—	—
Amortization deferred stock-based compensation	—	—	—	—	—	223,101	—	—	223,101
Components of comprehensive loss:									
Net loss	—	—	—	—	—	—	—	(37,185,627)	(37,185,627)
Unrealized loss on available-for-sale securities	—	—	—	—	—	—	(61,421)	—	(61,421)
Comprehensive loss									(37,247,048)
Balance as of December 31, 2008	—	—	5,734,920	3,441	322,671,604	—	7,841	(316,191,710)	6,491,176
Issuance of $10,000,000 of units consisting of preferred stock and warrants in initial closing of Private Placement, recorded in liabilities	483,081	—	—	—	—	—	—	—	—
Reclassification of preferred stock from liabilities to equity	—	—	—	—	20,126,000	—	—	—	20,126,000
Reclassification of second closing option of Private Placement from liabilities to equity and issuance of amended preferred stock instrument, net of issuance costs of $1,245,757	—	56,146,243	—	—	(46,501,000)	—	—	—	9,645,243
Issuance of $5,000,000 of units consisting of preferred stock and warrants in second closing of Private Placement, net of issuance costs of $321,185	241,537	2,670,343	—	—	2,008,472	—	—	—	4,678,815
Write-off of discount for beneficial conversion feature on second closing of Private Placement	—	1,188,400	—	—	(1,188,400)	—	—	—	—
Issuance of common stock pursuant to warrant exercises	—	—	244,908	147	(147)	—	—	—	—
Issuance of common stock pursuant to stock option exercises	—	—	759	—	6,562	—	—	—	6,562
Issuance of common stock under employee stock purchase plan	—	—	3,136	2	6,140	—	—	—	6,142
Issuance of common stock to employees	—	—	2	—	—	—	—	—	—
Stock-based compensation expenses—employees	—	—	—	—	1,310,945	—	—	—	1,310,945
Stock-based compensation expenses—non-employees	—	—	—	—	29,408	—	—	—	29,408
Components of comprehensive loss:									
Net loss	—	—	—	—	—	—	—	(40,226,046)	(40,226,046)
Unrealized loss on available-for-sale securities	—	—	—	—	—	—	(7,841)	—	(7,841)
Comprehensive loss									(40,233,887)
Balance as of December 31, 2009	724,618	60,004,986	5,983,725	3,590	298,469,584	—	—	(356,417,756)	2,060,404
Issuance of $28,500,000 of common stock in third closing of Private Placement, net of issuance costs of $1,786,786	—	—	17,272,716	10,364	26,702,850	—	—	—	26,713,214
Issuance of common stock upon conversion of preferred stock	(724,618)	(60,004,986)	7,246,339	4,348	60,000,638	—	—	—	—
Issuance of $28,819,974 of common stock through controlled equity offering facilities, net of issuance costs of $1,332,292	—	—	5,725,908	3,364	27,484,318	—	—	—	27,487,682
Issuance of $10,961,379 of common stock in 2010 Offering, net of issuance costs of $1,233,056	—	—	7,357,610	4,415	9,723,908	—	—	—	9,728,323
Issuance of common stock pursuant to warrant exercises	—	—	1,764,322	1,059	(1,059)	—	—	—	—
Issuance of common stock pursuant to stock option exercises	—	—	1,250	1	3,674	—	—	—	3,675
Issuance of common stock under employee stock purchase plan	—	—	3,528	2	5,756	—	—	—	5,758
Issuance of common stock to employees	—	—	16,256	10	(27,410)	—	—	—	(27,400)
Stock-based compensation expenses—employees	—	—	—	—	870,366	—	—	—	870,366
Stock-based compensation expenses—non-employees	—	—	—	—	6,858	—	—	—	6,858
Adjustment of common stock to par value as a result of Reverse Split	—	—	—	(22,616)	22,616	—	—	—	—
Components of comprehensive loss:									
Net loss	—	—	—	—	—	—	—	(24,587,485)	(24,587,485)
Unrealized loss on available-for-sale securities	—	—	—	—	—	—	(14,726)	—	(14,726)
Comprehensive loss									(24,602,211)
Balance as of December 31, 2010	—	$ —	45,371,654	$ 4,537	$423,262,099	$ —	$(14,726)	$(381,005,241)	$ 42,246,669

See accompanying notes to consolidated financial statements.

SUNESIS PHARMACEUTICALS, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,		
	2010	2009	2008
Cash flows from operating activities			
Net loss	$(24,587,485)	$(40,226,046)	$(37,185,627)
Adjustments to reconcile loss to net cash used in operating activities:			
Stock-based compensation expense	877,224	1,340,353	1,910,755
Depreciation and amortization	150,227	341,576	1,103,848
Non-cash expense related to Private Placement	—	21,016,997	—
Non-cash expense for revaluation of warrant liability	3,664,094	—	—
Non-cash restructuring (reversals) charges, net	—	(1,372,634)	1,937,821
(Gain) loss on sale or disposal of property and equipment	(82,239)	56,188	(189,111)
Exchange gain on marketable securities	(62,966)	—	—
Other non-cash items	(27,400)	—	—
Changes in operating assets and liabilities:			
Prepaids and other current assets	(702,457)	351,399	11,154
Deposits and other assets	43,322	83,401	229,972
Accounts payable	55,502	(430,246)	(672,171)
Accrued clinical expense	444,354	(736,547)	840,448
Accrued compensation	284,496	191,529	(1,688,653)
Other accrued liabilities	591,850	(790,128)	(503,145)
Deferred rent	(27,943)	(8,871)	(56,302)
Deferred revenue	—	—	(1,199,948)
Net cash used in operating activities	(19,379,421)	(20,183,029)	(35,460,959)
Cash flows from investing activities			
Purchases of property and equipment, net	(64,191)	(6,140)	(179,148)
Proceeds from sale of property and equipment	104,255	391,174	876,303
Purchases of marketable securities	(46,636,773)	(503,107)	(25,902,749)
Proceeds from maturities of marketable securities	7,512,533	4,817,110	57,477,417
Net cash (used in) provided by investing activities	(39,084,176)	4,699,037	32,271,823
Cash flows from financing activities			
Proceeds from issuance of convertible preferred stock and warrants under Private Placement, net of issuance costs	—	13,433,061	—
Proceeds from issuance of common stock under Private Placement, net of issuance costs	26,713,214	—	—
Proceeds from issuance of common stock through controlled equity offering facilities, net of issuance costs	27,487,682	—	—
Proceeds from issuance of common stock and warrants under 2010 Offering, net of issuance costs	14,217,941	—	—
Proceeds from exercise of stock options and from employee stock purchase plan	9,433	12,704	66,576
Payments on borrowing under equipment financing	—	—	(2,306,624)
Net cash provided by (used in) financing activities	68,428,270	13,445,765	(2,240,048)
Net increase (decrease) in cash and cash equivalents	9,964,673	(2,038,227)	(5,429,184)
Cash and cash equivalents at beginning of period	4,258,715	6,296,942	11,726,126
Cash and cash equivalents at end of period	$ 14,223,388	$ 4,258,715	$ 6,296,942
Supplemental disclosure of cash flow information			
Interest paid	$ 271	$ 1,187	$ 187,946
Supplemental disclosure of non-cash activities			
Deemed distributions to preferred stockholders	$ —	$ 27,563,400	$ —
Beneficial conversion feature on preferred stock	$ —	$ 1,188,400	$ —
Cashless exercise of warrants	$ 3,063,793	$ 439,780	$ —
Conversion of preferred stock to common stock	$ 60,004,986	$ —	$ —

See accompanying notes to consolidated financial statements.

1. Organization and Summary of Significant Accounting Policies

Overview

Sunesis Pharmaceuticals, Inc. (the "Company" or "Sunesis") was incorporated in the state of Delaware on February 10, 1998, and its facilities are located in South San Francisco, California. Sunesis is a biopharmaceutical company focused on the development and commercialization of new oncology therapeutics for the treatment of solid and hematologic cancers. The Company's primary activities since incorporation have been conducting research and development internally and through corporate collaborators, in-licensing and out-licensing pharmaceutical compounds and technology, conducting clinical trials and raising capital.

In December 2010, the Company commenced enrollment of a Phase 3, multi-national, randomized, double-blind, placebo-controlled, pivotal clinical trial of vosaroxin in combination with cytarabine in patients with relapsed or refractory acute myeloid leukemia (the "VALOR trial").

Significant Risks and Uncertainties

The Company has incurred significant losses and negative cash flows from operations since its inception, and as of December 31, 2010, had cash, cash equivalents and marketable securities totaling $53.4 million and an accumulated deficit of $381.0 million.

Sunesis believes that it currently has the resources available and accessible to fund its operations until the planned unblinding of the VALOR trial in 2013. To the extent that the costs of the VALOR trial exceed the Company's current estimates or the Company is unable to raise sufficient additional capital through its controlled equity offering facility with Cantor (see Note 9) or otherwise, the Company will need to reduce operating expenses, enter into a collaboration or other similar arrangement with respect to development and/or commercialization rights to vosaroxin, outlicense intellectual property rights to vosaroxin, sell assets, or a combination of the above.

The Company will need to raise substantial additional capital if it expands the number of patients included in the trial based on the pre-specified interim analysis of data from the trial by the DSMB. In addition, the Company will need to raise substantial additional capital to complete the development and potential commercialization of vosaroxin. The Company expects to finance its future cash needs primarily through equity issuances, debt arrangements, a possible license, collaboration or other similar arrangement with respect to development and/or commercialization rights to vosaroxin, or a combination of the above.

As part of the VALOR trial, payables are incurred for services that are originally denominated in foreign currencies. According to its investment policy, the Company may purchase certain European currencies or highly-rated investments denominated in those currencies to manage the risk of future movements in foreign exchange rates that would affect such payables. There is no guarantee that the related gains and losses will substantially offset each other, and the Company may be subject to significant exchange gains or losses as currencies fluctuate from quarter to quarter.

Basis of Presentation

The accompanying consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP"). The financial statements include a wholly owned subsidiary, Sunesis Europe Limited, a United Kingdom corporation. Management has determined that the Company operates as a single reportable segment. The financial statements include all adjustments (consisting

2010 Form 10-K

only of normal recurring adjustments) that management believes are necessary for a fair presentation of the periods presented. Prior period revenues and interest income (expense) in the statements of operations and certain liabilities in the balance sheets and statements of cash flows have been reclassified to conform to the current year presentation.

Reverse Stock Split

On February 14, 2011, the Company effected a one-for-six reverse split of its capital stock (the "Reverse Split"), as previously authorized and approved at the annual meeting of stockholders on June 2, 2010. As a result of the Reverse Split, every six shares of capital stock were combined into one share of capital stock. The Reverse Split affected all of the Company's common stock outstanding immediately prior to the effective time of the Reverse Split as well as the number of shares of common stock available for issuance under the Company's equity incentive plans. In addition, the Reverse Split effected a reduction in the number of shares of common stock issuable upon the exercise of outstanding stock options and warrants. The accompanying financial statements and notes to the financial statements give retroactive effect to the Reverse Split for all periods presented.

Significant Estimates and Judgments

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the Company's consolidated financial statements and accompanying notes. Actual results could differ materially from these estimates. Significant estimates, assumptions and judgments made by management include those related to revenue recognition, clinical trial accounting, stock-based compensation and the valuation of equity and related instruments.

Cash Equivalents and Marketable Securities

The Company considers all highly liquid securities with original maturities of three months or less from the date of purchase to be cash equivalents, which generally consist of money market funds and corporate debt securities. Marketable securities consist of securities with original maturities of greater than three months, which may include U.S. and European government obligations and corporate debt securities.

Management determines the appropriate classification of securities at the time of purchase. The Company generally classifies its entire investment portfolio as available-for-sale. The Company views its available-for-sale portfolio as available for use in current operations. Accordingly, the Company classifies all investments as short-term, even though the stated maturity may be more than one year from the current balance sheet date. Available-for-sale securities are carried at fair value, with unrealized gains and losses reported in accumulated other comprehensive income (loss), which is a separate component of stockholders' equity. Estimated fair values are determined by the Company using available market information.

The amortized cost of securities is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization and accretion is included in other income (expense) in the statement of operations. Realized gains and losses and declines in value judged to be other-than-temporary on available-for-sale securities, if any, are also recorded to other income (expense). The cost of securities sold is based on the specific-identification method.

Concentrations of Credit Risk and Financial Instruments

The Company invests cash that is not currently being used for operational purposes in accordance with its investment policy. The policy allows for the purchase of low risk debt securities issued by the U.S. and certain European governments and government agencies and very highly rated banks and corporations domiciled in the U.S. and certain European countries, subject to certain concentration limits. The policy limits maturities of

securities purchased to no longer than 18 months and the dollar-weighted average maturity of the portfolio to nine months. Management believes these guidelines ensure both the safety and liquidity of any investment portfolio the Company may hold.

Financial instruments that potentially subject the Company to concentrations of credit risk generally consist of cash, cash equivalents and marketable securities. The carrying amounts of cash equivalents and marketable securities generally approximate fair value due to their short-term nature. The Company is exposed to credit risk in the event of default by the institutions holding its cash, cash equivalents and any marketable securities to the extent of the amounts recorded in the balance sheets.

Property and Equipment

Property and equipment are stated at cost, less accumulated depreciation and amortization. Depreciation is determined using the straight-line method over the estimated useful lives of the respective assets, generally three to five years. Leasehold improvements are amortized on a straight-line basis over the shorter of their estimated useful lives or the term of the lease.

Accounting for Equity Financings

The accounting for the initial and second closing of the sale of $10.0 million and $5.0 million of units, respectively, in the Private Placement (see Note 9), and subsequent revaluations of the related financial instruments, required fair values to be established at different dates, either individually or in aggregate, for the four primary components of the Private Placement: (a) the Series A convertible preferred stock, (b) the warrants to purchase common stock, (c) the option for the investors to participate in the second closing (the "Second Closing Option"), and (d) the option for the investors to participate in the common equity closing (the "Common Equity Closing Option"). The Option-Pricing Method, which utilizes the Black-Scholes model, was selected to determine these fair values, which were calculated as a series of call options on the potential enterprise value of the Company at different valuation points at which the claims of the different stakeholder groups on the enterprise value would change. The results of the Black-Scholes model were affected by the Company's stock price, as well as assumptions regarding a number of highly subjective variables. These variables included the expected term of the financial instruments and the Company's expected stock price volatility, risk-free interest rate and dividend rate over the expected term. On June 30, 2010, the Company completed the third and final closing of the Private Placement. In conjunction with this common equity closing, each of the outstanding shares of Series A convertible preferred stock issued in the initial and second closings of the Private Placement were converted into shares of common stock.

In October 2010, the Company completed the 2010 Offering (see Note 9), in which the Company sold its common stock and warrants to purchase its common stock for aggregate gross proceeds of $15.5 million. Due to the potential for the warrants to be settled in cash upon the occurrence of certain transactions specified in the warrant agreements, the warrants are being accounted for as a derivative liability as opposed to permanent equity. Outstanding warrants under this arrangement are revalued to their fair value each period end, with the change in fair value recorded to other income (expense) in the statement of operations. As of December 31, 2010, the fair value of the warrants was $8.2 million. During the year ended December 31, 2010, the Company recorded $3.7 million in other income (expense) related to the change in the fair value of the warrants from the date of their issuance through December 31, 2010.

Revenue Recognition

Revenue arrangements with multiple deliverables are accounted for in accordance with the Financial Accounting Standards Board Accounting Standards Codification, Subtopic 605-25, *Multiple-Element Arrangements* ("ASC 605-25"). Under ASC 605-25, revenue arrangements with multiple deliverables are divided into separate units of accounting based on whether certain criteria are met, including whether the delivered item

has stand-alone value to the customer and whether there is objective and reliable evidence of the fair value of the undelivered items. Consideration is allocated among the separate units of accounting based on their respective fair value, and the applicable revenue recognition is applied to each of the separate units.

Non-refundable fees where the Company has no continuing performance obligations are recognized as revenues when collection is reasonably assured. In situations where continuing performance obligations exist, nonrefundable fees are deferred and recognized ratably over the projected performance period.

Research funding from collaborations is recognized as revenue as the related research services are performed. This funding is generally based on a specified amount per full-time equivalent employee per year.

Milestone payments which are substantive and at risk at the time of the execution of the collaboration agreement are recognized upon completion of the applicable milestone event. Any future royalty revenue will be recognized based on reported product sales by third-party licensees.

Research and Development

All research and development costs, including those funded by third parties, are expensed as incurred. Research and development expenses consist primarily of costs related to employee salaries and benefits, clinical trials (including amounts paid to contract research organizations ("CROs"), and participating clinical trial sites), consultants, outside services (including drug manufacturing), and facilities.

Clinical Trial Accounting

The Company records accruals for estimated clinical trial costs, which include payments for work performed by CROs, and participating clinical trial sites. These costs are generally a significant component of research and development expenses. Costs incurred for setting up clinical trial sites for participation in trials are generally non-refundable, and are expensed immediately, with any refundable advances related to enrollment of the first patient recorded as prepayments and assessed for recoverability on a quarterly basis. Costs related to patient enrollment are accrued as patients progress through the clinical trial, including amortization of any first-patient prepayments. This amortization generally matches when the related services are rendered, however, these cost estimates may or may not match the actual costs incurred by the CROs or clinical trial sites, and if the Company has incomplete or inaccurate information, the clinical trial accruals may not be accurate. The difference between accrued expenses based on the Company's estimates and actual expenses have not been material to date.

Stock-Based Compensation

The Company grants options to purchase common stock to its employees, directors and consultants under its stock option plans. Under the Company's Employee Stock Purchase Plan, eligible employees can also purchase shares of common stock at 85% of the lower of the fair market value of the Company's common stock at the beginning of a 12-month offering period or at the end of one of the two related six-month purchase periods.

The Company values these share-based awards using the Black-Scholes option valuation model (the "Black-Scholes model"). The determination of fair value of share-based payment awards on the date of grant using the Black-Scholes model is affected by the Company's stock price as well as assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to, the expected stock price volatility over the term of the awards and actual and projected employee stock option exercise behaviors and related estimated forfeitures.

Foreign Currency

Transactions that are denominated in a foreign currency are translated into U.S. dollars at the current exchange rate on the date of the transaction. Any foreign currency-denominated monetary assets and liabilities are subsequently remeasured at current exchange rates as of each balance sheet date, with gains or losses on foreign exchange recognized in other income (expense) in the statement of operations.

Income Taxes

The Company accounts for income taxes under the liability method. Under this method, deferred tax assets and liabilities are determined based on the differences between the tax basis of assets and liabilities and their basis for financial reporting. Deferred tax assets or liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which temporary differences are expected to be recovered or settled. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized. The Company's policy is to recognize interest charges and penalties as other expense.

Comprehensive Loss

The Company displays comprehensive loss and its components within the statements of stockholders' equity, net of related tax effects. Comprehensive loss is comprised of net loss and unrealized gains or losses on available-for-sale securities.

2. Loss per Common Share

Basic loss per common share is calculated by dividing loss attributable to common stockholders by the weighted-average number of common shares outstanding for the period. Diluted loss per common share is computed by dividing loss attributable to common stockholders by the weighted-average number of common shares outstanding for the period plus dilutive potential common shares as determined using the as-if converted method for convertible preferred stock and the treasury stock method for options and warrants to purchase common stock. Convertible preferred stock, options and warrants to purchase common stock have been excluded from the calculation of diluted loss per common share as their effect is anti-dilutive.

The following tables set forth the computation of basic and diluted loss per common share and the excluded potential common shares for outstanding securities as of the related period end dates:

	Year Ended December 31,		
	2010	2009	2008
Numerator:			
Net loss	$(24,587,485)	$(40,226,046)	$(37,185,627)
Deemed distribution to preferred stockholders	—	(27,563,400)	—
Loss attributable to common stockholders	$(24,587,485)	$(67,789,446)	$(37,185,627)
Denominator:			
Weighted-average common shares outstanding	24,860,212	5,746,786	5,731,196
Basic and diluted loss attributable to common stockholders per common share	$ (0.99)	$ (11.80)	$ (6.49)

	As of December 31,		
	2010	2009	2008
Outstanding securities not included in calculations:			
Convertible preferred stock, as-if converted	—	7,246,339	—
Warrants to purchase common stock	8,647,550	7,353,194	443,474
Options to purchase common stock	1,065,332	1,067,889	775,144
	9,712,882	15,667,422	1,218,618

3. Strategic Collaborations

The table below summarizes collaboration revenues for the periods presented:

	Year Ended December 31,		
	2010	2009	2008
Biogen Idec	$ —	$1,500,000	$4,310,551
Other	27,083	50,000	606,789
Total collaboration revenue	$27,083	$1,550,000	$4,917,340

In August 2004, the Company entered into a collaboration agreement with Biogen Idec, Inc., or Biogen Idec, to discover, develop and commercialize small molecule inhibitors of Raf kinase and up to five additional targets that play a role in oncology and immunology indications or in the regulation of the human immune system. Concurrent with the signing of the agreement, Biogen Idec paid a $7.0 million upfront technology access fee and made a $14.0 million equity investment in the Company through the purchase of the Company's Series C-2 preferred stock, which converted into common stock upon the Company's initial public offering in September 2005.

Pursuant to the terms of the collaboration agreement, the Company applied its Tethering technology to generate small molecule leads during the research term, for which it received research funding, which was paid in advance to support some of the Company's scientific personnel. In connection with the Company's June 2008 restructuring, the parties agreed to terminate the research term and related funding as of June 30, 2008. A total of $20.0 million of research funding was received through this date. The Company had received a total of $3.0 million in milestone payments for meeting certain preclinical milestones through December 31, 2010, including a $1.5 million milestone for Biogen Idec's selection of a Raf kinase inhibitor development candidate for the treatment of cancer which was received and recognized in 2009, and a $0.5 million milestone which was received and recognized in 2008.

The Company may in the future receive pre-commercialization milestone payments of up to $60.5 million per target, as well as royalty payments depending on product sales. Potential total royalty payments may be increased if the Company exercises its option to co-develop and co-promote product candidates for up to two targets worldwide (excluding Japan) and may be reduced if Biogen Idec is required to in-license additional intellectual property related to certain technology jointly developed under the collaboration agreement in order to commercialize a collaboration product.

In November 2010, Biogen Idec announced that it will seek to spin out or outlicense certain oncology assets, including this collaboration agreement. The Company cannot predict the outcome of this strategic decision by Biogen Idec or its impact on future development activity under the collaboration agreement or on the Company's prospects for the receipt of milestone or royalty payments under the collaboration agreement.

4. License Agreements

In March 2009, SARcode Corporation, or SARcode, a privately-held biopharmaceutical company, acquired the Company's interest in all of its LFA-1 patents and related know-how that had previously been licensed to SARcode. The cash consideration of $2.0 million was recorded as revenue in April 2009, once all related materials had been transferred. The Company still holds three secured convertible promissory notes, with a total principal amount of $1.0 million, which it received upon entry into the initial license agreement in March 2006. The notes are due in 2012 and are convertible into the preferred stock of SARcode at the Company's option. The Company has yet to record any amounts represented by these notes receivable as revenue, due to the uncertainty of their collectibility.

5. Financial Instruments

In accordance with applicable GAAP, the fair value of the Company's financial instruments reflect the amounts 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 (i.e. the exit price). A fair value hierarchy is also utilized to prioritize valuation inputs, as follows:

Level 1 - quoted prices in active markets for identical assets and liabilities

Level 2 - significant observable inputs other than Level 1 inputs, such as quoted prices in active markets for similar assets or liabilities; quoted prices for identical or similar assets or liabilities 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 asset or liability

Level 3 - unobservable inputs

The Company's Level 2 valuations are generally based upon quoted prices in active markets for similar securities, with prices adjusted for yield and number of days to maturity.

As part of the VALOR trial, payables are incurred for services that are originally denominated in foreign currencies, such as services performed outside of the United States by the Company's primary CRO, by clinical study sites, and for the provision of drug supply to those sites. To manage the risk of future movements in foreign exchange rates that would affect such payables, the Company may purchase certain European currencies or highly-rated investments denominated in those currencies, subject to similar criteria as for other investments defined in the Company's investment policy. To date, the Company has purchased Euros and Euro-denominated obligations of foreign governments. These cash, cash equivalent and short-term investment balances are recorded at their fair value based on the current exchange rate as of each balance sheet date. The resulting gains or losses offset exchange gains or losses on the related payables, both of which are recorded in the Company's statements of operations.

The following table summarizes the fair value of the Company's financial assets measured on a recurring basis as of December 31, 2010, which were comprised solely of available-for-sale securities with remaining contractual maturities of one year or less:

December 31, 2010	Input Level	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Money market funds	Level 1	$14,036,573	$ —	$ —	$14,036,573
Corporate debt obligations	Level 2	20,113,847	174	(21,127)	20,092,894
Commercial paper	Level 2	16,986,375	6,850	—	16,993,225
Foreign government obligations	Level 2	2,086,984	—	(624)	2,086,360
Total available-for-sale securities		53,223,779	7,024	(21,751)	53,209,053
Less: amounts classified as cash equivalents		14,036,573	—	—	14,036,573
Amounts classified as marketable securities		$39,187,206	$7,024	$(21,751)	$39,172,480

The following table summarizes the available-for-sale securities that were in an unrealized loss position as of December 31, 2010, each having been in such a position for less than 12 months, and none deemed to be other-than-temporarily impaired:

December 31, 2010	Gross Unrealized Losses	Estimated Fair Value
Corporate debt obligations	$(21,127)	$19,579,881
Foreign government obligations	(624)	2,086,360
Total	$(21,751)	$21,666,241

No significant facts or circumstances have arisen to indicate that there has been any deterioration in the creditworthiness of the issuers of these securities. The gross unrealized losses are not considered to be significant and have been for relatively short durations. The Company does not intend to sell these securities and it is not more likely than not that they will need to be sold prior to the recovery of their amortized cost basis. There were no sales of available-for-sale securities in the years ended December 31, 2010, 2009 and 2008.

The Company's financial liabilities that were measured on a recurring basis as of December 31, 2010 were comprised solely of a warrant liability issued in connection with the 2010 Offering (see Note 9). The fair value of the warrant liability was $8.2 million as of December 31, 2010, which was established based on Level 3 inputs. The fair value was determined using the Black-Scholes model, which requires inputs such as the expected term of the warrants, share price volatility and risk-free interest rate. These inputs are subjective and generally require significant analysis and judgment to develop.

The fair value of the warrant liability was estimated using the following assumptions as of December 31, 2010:

	December 31, 2010
Fair market value of Company's common stock	$ 3.12
Exercise price	$ 2.52
Expected term (years)	4.8
Expected volatility	87.6%
Risk-free interest rate	1.9%
Expected dividend yield	0.0%
Estimated fair value per share	$ 2.22
Shares underlying outstanding warrants classified as liabilities	3,678,798
Total estimated fair value of outstanding warrants	$8,153,712

The following table provides a summary of changes in the fair value of the Company's Level 3 financial liabilities for the year ended December 31, 2010 (in thousands):

	Warrant Liability
Balance as of December 31, 2009	—
Initial fair value of warrant liability	4,489,618
Change in fair value of warrant liability included in other income (expense)	3,664,094
Balance as of December 31, 2010	$8,153,712

As of December 31, 2009, the Company held no financial assets or liabilities that were measured on a recurring basis other than money market funds of $4.2 million, which were valued based on Level 1 inputs and had no associated unrealized gains or losses.

6. Property and Equipment

Property and equipment is recorded at cost and consisted of the following as of December 31 of the periods presented:

	2010	2009
Computer equipment and software	$ 1,063,246	$ 1,054,449
Furniture and office equipment	471,549	437,912
Laboratory equipment	43,534	855,678
Leasehold improvements	376,388	376,388
	1,954,717	2,724,427
Less accumulated depreciation and amortization	(1,838,529)	(2,461,316)
Net property and equipment	$ 116,188	$ 263,111

7. Other Accrued Liabilities

Other accrued liabilities as of December 31 were as follows:

	2010	2009
Accrued outside services	$1,078,793	$390,418
Accrued professional services	292,633	359,076
Other accruals	8,983	39,065
Total other accrued liabilities	$1,380,409	$788,559

8. Commitments and Contingencies

Commitments

The Company's operating lease obligations as of December 31, 2010 relate to the lease of 15,000 square feet of office space in a building at 395 Oyster Point Boulevard in South San Francisco, California, which is currently the Company's headquarters. The lease was entered into in December 2006 and expires in April 2013, subject to the Company's option to extend the lease through February 2014. The operating lease agreement provides for increasing monthly rent payment over the lease term.

Aggregate non-cancelable future minimum rental payments under operating leases are as follows:

Year Ended December 31:	Payments
2011	$395,215
2012	404,441
2013	135,326
	$934,982

The Company recognizes rent expense on a straight-line basis. The Company recorded rent expense of $0.5 million, $0.8 million and $3.0 million for the years ended December 31, 2010, 2009 and 2008, respectively. Deferred rent balances in the Company's balance sheet represent the difference between actual rent payments and straight-line rent expense.

Contingencies

From time to time, the Company may be involved in legal proceedings, as well as demands, claims and threatened litigation, which arise in the normal course of its business or otherwise. The ultimate outcome of any

litigation is uncertain and unfavorable outcomes could have a negative impact on the Company's results of operations and financial condition. Regardless of outcome, litigation can have an adverse impact on the Company because of the defense costs, diversion of management resources and other factors. The Company is not currently involved in any material legal proceedings.

9. Stockholders' Equity

Preferred Stock

The Company has 10,000,000 shares of authorized preferred stock issuable in one or more series. Upon issuance, the Company can determine the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of common stock. There were zero and 724,618 shares of preferred stock outstanding as of December 31, 2010 and 2009, respectively.

Common Stock

Holders of common stock are entitled to one vote per share on all matters to be voted upon by the stockholders of the Company. Subject to the preferences that may be applicable to any outstanding shares of preferred stock, the holders of common stock are entitled to receive ratably such dividends, if any, as may be declared by the Board of Directors.

Private Placement

In March 2009, the Company entered into a securities purchase agreement with accredited investors, including certain members of management, providing for the private placement of up to $15.0 million of units consisting of Series A convertible preferred stock and warrants to purchase common stock, and up to $28.5 million in common stock, in three closings (collectively, the "Private Placement").

The initial closing of $10.0 million of units of the Private Placement was completed in April 2009, and the second closing of $5.0 million of units was completed in October 2009. The warrants have an exercise price of $1.32 per share and a term of seven years from the date of issuance. The net proceeds from the initial closing were $8.8 million, and net proceeds from the second closing were $4.7 million. In the initial closing, the Company issued 0.5 million shares of Series A convertible preferred stock, which were initially convertible into 4.8 million shares of common stock and warrants to purchase an aggregate of 4.8 million shares of common stock. In the second closing, the Company issued 0.2 million shares of Series A preferred stock, which were initially convertible into 2.4 million shares of common stock, and warrants to purchase 2.4 million shares of common stock.

Warrants for an aggregate of 2.3 million and 0.3 million shares of common stock were net exercised during the years ended December 31, 2010 and 2009, respectively, resulting in the issuance of 1.8 million shares and 0.2 million shares of common stock, respectively. As of December 31, 2010, warrants issued under the Private Placement for the purchase of 4.6 million shares of common stock were outstanding.

On June 30, 2010, the Company completed the third and final closing of the Private Placement, issuing 17.3 million shares of common stock to the investors at a purchase price of $1.65 per share, for gross proceeds of $28.5 million and net proceeds of $26.7 million. In conjunction with this common equity closing, each of the 0.7 million outstanding shares of Series A convertible preferred stock issued in the initial and second closings of the Private Placement were converted into 10 shares of common stock, and as a result, an additional 7.2 million shares of common stock were issued on June 30, 2010.

Other Investor Rights

The investors in the Private Placement received a number of additional rights as a result of their convertible preferred stock ownership, some of which expired upon conversion of the Series A preferred stock into common stock on June 30, 2010. The remaining rights include the right of certain of the investors to designate members of the Company's board of directors.

Accounting Treatment

On January 1, 2010, due to an amendment to the Private Placement agreements effected on October 27, 2009, the Series A convertible preferred stock became potentially redeemable upon certain events that were outside of the control of the Company, and all Series A convertible preferred stock issued in the Private Placement that was outstanding at that time was reclassified to mezzanine equity, outside of stockholders' equity. On March 29, 2010, as a result of an additional amendment to the Private Placement agreements, the Series A convertible preferred stock was reclassified back into stockholders' equity. On May 1, 2010, the Series A convertible preferred stock again became potentially redeemable upon certain events that were outside of the control of the Company, and all Series A convertible preferred stock issued in the Private Placement that was outstanding at that time was reclassified outside of stockholders' equity. On June 30, 2010, upon conversion of the Series A preferred stock into common stock, the value of the Series A convertible preferred stock was reclassified to common stock and additional paid-in capital.

Controlled Equity Offering

In January 2010, the Company entered into its first controlled equity offering sales agreement with Cantor Fitzgerald & Co. ("Cantor"), pursuant to which the Company could issue and sell shares of its common stock having an aggregate offering price of up to $15.0 million from time to time with Cantor acting as agent and/or principal, subject to certain conditions. Under this facility, the Company sold an aggregate of 2.6 million shares of common stock in the year ended December 31, 2010, at an average price of $5.67 per share for gross proceeds of $15.0 million. Net proceeds were $14.2 million after deducting Cantor's commission and costs to set up the facility. No further shares of common stock can be issued under this facility.

In April 2010, the Company entered into a second controlled equity offering sales agreement with Cantor, pursuant to which the Company could issue and sell shares of its common stock having an aggregate offering price of up to $20.0 million from time to time through Cantor acting as agent and/or principal. As of December 31, 2010, the Company had sold an aggregate of 3.1 million shares of common stock at an average price of $4.60 per share for gross proceeds of $14.2 million. Net proceeds were $13.7 million after deducting Cantor's commission and costs to set up the facility, of which $0.4 million was received upon settlement in January 2011. As of December 31, 2010, $5.8 million of common stock was available to be sold under this facility, subject to certain conditions as specified in the agreement.

From January 1, 2011 through March 15, 2011, the Company sold an aggregate of 0.6 million shares of common stock through the second controlled equity offering sales agreement with Cantor, at an average price of approximately $2.90 per share for gross proceeds of $1.8 million. Net proceeds were $1.7 million after deducting Cantor's commission. As of March 15, 2011, $4.0 million of common stock was available to be sold under this facility, subject to certain conditions as specified in the agreement.

2010 Offering

On October 6, 2010, the Company completed an underwritten offering, pursuant to which the Company issued an aggregate of 7.4 million shares of common stock and warrants to purchase 3.7 million shares of common stock, for aggregate gross proceeds of $15.5 million (the "2010 Offering"). Net proceeds from the sale were $14.2 million, after deducting the underwriting discount and offering expenses. The warrants are exercisable beginning six months after issuance at an exercise price of $2.52 per share, and expire five years from the date of issuance.

The warrants have been classified as a derivative liability in the Company's balance sheet due to potential cash settlement of the warrants on terms, which do not include a cash limit, and upon the occurrence of certain transactions, as specified in the warrant agreements. The warrants were initially recorded at their fair value of $4.5 million, which was estimated using the Black-Scholes model. At each subsequent balance sheet date, the estimated fair value of the outstanding warrants is determined using the Black-Scholes model and recorded to the balance sheet, with the change in fair value recorded to other income (expense) in the statement of operations. As of December 31, 2010, the fair value of the warrants was $8.2 million.

Stock Option Plans

The Company grants options primarily to: (i) new employees, 25% of which becomes exercisable on the first anniversary of the vesting commencement date, and 1/48th becomes exercisable each month over the remainder of the four-year vesting period, (ii) existing employees, 1/48th of which becomes exercisable each month following the date of grant over a period of four years, (iii) new non-employee members of the board of directors, 50% of which becomes exercisable on each of the first and second anniversary of the vesting commencement date, and (iv) continuing non-employee members of the board of directors, 1/12th of which becomes exercisable each month following the date of grant over a period of one year.

2005 Equity Incentive Award Plan

In February 2005, the Board of Directors adopted and, in September 2005, the stockholders approved, the 2005 Equity Incentive Award Plan (the "2005 Plan"). The 2005 Plan is intended to serve as the successor equity incentive program to the 1998 Stock Plan and 2001 Stock Plan. The Company initially reserved a total of 296,566 shares of common stock for issuance under the 2005 Plan plus shares underlying any options granted under the Company's 1998 Stock Plan or 2001 Stock Plan that expire or are cancelled without having been exercised or are repurchased by the Company pursuant to the terms of such options.

The number of shares of common stock reserved under the 2005 Plan automatically increases on the first trading day of each year by an amount equal to the lesser of: (i) 4% of the Company's outstanding shares of common stock on such date, (ii) 180,392 shares, or (iii) an amount determined by the Board of Directors. The maximum aggregate number of shares which may be issued or transferred over the term of the 2005 Plan is 1,882,352 shares.

On January 1, 2010, the number of shares of common stock reserved for future issuance under the 2005 Plan was increased by 180,392 shares pursuant to the evergreen provision detailed above. During the year ended December 31, 2010, options to purchase 64,586 shares of the Company's common stock were granted and 16,255 shares of the Company's common stock were issued under the 2005 Plan. As of December 31, 2010, options and awards for an aggregate of 1,511,966 shares of the Company's common stock had been granted and 355,404 shares were available for future grants under the 2005 Plan.

2006 Employment Commencement Incentive Plan

In November 2005, the Board of Directors adopted the 2006 Employment Commencement Incentive Plan (the "2006 Plan"), which became effective on January 1, 2006. Awards granted pursuant to the 2006 Plan are intended to be inducement awards pursuant to Nasdaq Marketplace Rule 4350(i)(1)(A)(iv). The 2006 Plan was not subject to the approval of the Company's stockholders. Eligibility to participate in the 2006 Plan is limited to employees who have not previously been employees or directors of the Company, or following a bona fide period of non-employment by the Company. Additionally, grants awarded to such employees under the 2006 Plan must be made in connection with commencement of employment and must be an inducement material to the person entering into employment with the Company.

In the year ended December 31, 2010, there was no increase in the number of shares of common stock reserved for issuance under the 2006 Plan, and no options were granted under the 2006 Plan. As of December 31,

2010, options to purchase an aggregate of 92,166 shares of the Company's common stock had been granted and 78,459 shares were available for future grants under the 2006 Plan.

Employee Stock Purchase Plan

In February 2005, the Board of Directors adopted and, in September 2005, the stockholders approved the Company's Employee Stock Purchase Plan (the "ESPP"). The ESPP permits eligible employees to purchase common stock at a discount through payroll deductions during defined offering periods. Eligible employees can purchase shares of the Company's common stock at 85% of the lower of the fair market value of the common stock at the beginning of a 12-month offering period or at the end of one of the two related 6-month purchase periods. The Company initially reserved a total of 33,824 shares of common stock for issuance under the ESPP.

The number of shares of common stock reserved under the ESPP automatically increases on the first trading day each year, by an amount equal to the lesser of: (i) 0.5% of the Company's outstanding shares of common stock on such date, (ii) 22,549 shares, or (iii) a lesser amount determined by the Board of Directors. The maximum aggregate number of shares which may be issued over the term of the ESPP is 225,491 shares. In addition, no participant in the ESPP may be issued or transferred shares of common stock valued at more than $25,000 per calendar year and no participant may purchase more than 196 shares during any purchase period.

A total of 3,528 shares were issued under the ESPP during the year ended December 31, 2010. As of December 31, 2010, 55,553 shares of the Company's common stock had been issued and 35,412 shares were available for future issuance under the ESPP.

Warrants

The Company had the following warrants to purchase common stock outstanding as of December 31, 2010:

	Shares	Exercise Price	Expiration
	362,329	$37.26	March 2013
	263	$54.60	June 2013
	126	$54.60	June 2014
	13,737	$54.60	August 2015
	174	$54.60	September 2015
	2,876,329	$ 1.32	April 2016
	1,715,794	$ 1.32	October 2016
	3,678,798	$ 2.52	October 2015
Total warrants outstanding	8,647,550		

Reserved Shares

As of December 31, 2010, the Company's shares of common stock reserved for future issuance were as follows:

	Shares Available for Future Grant	Outstanding Securities	Total Shares Reserved
Warrants	—	8,647,550	8,647,550
Stock option plans	433,863	1,065,332	1,499,195
Employee stock purchase plan	35,412	—	35,412
Total reserved shares of common stock	469,275	9,712,882	10,182,157

10. Stock-Based Compensation

Overview

Employee stock-based compensation expense is calculated based on the grant-date fair value of awards ultimately expected to vest, reduced for estimated forfeitures, and is recorded on a straight-line basis over the vesting period of the awards. Forfeitures are estimated at the time of grant, based on historical option cancellation information, and revised in subsequent periods if actual forfeitures differ from those estimates. Employee stock-based compensation expense related to the Company's stock-based awards was as follows for the periods presented:

	Year ended December 31,		
	2010	2009	2008
Research and development	$300,592	$ 226,568	$ 644,549
General and administrative	569,774	1,084,377	1,265,379
Restructuring charges	—	—	366,637
Total employee stock-based compensation expense	$870,366	$1,310,945	$2,276,565

Fair Value of Awards

The Company determines the fair value of stock-based awards on the grant date using the Black-Scholes model, which is impacted by the Company's stock price, as well as assumptions regarding a number of highly subjective variables. The following table summarizes the weighted-average assumptions used as inputs to the Black-Scholes model, and resulting weighted-average and total estimated grant date fair values of employee stock options granted during the periods presented:

	Year Ended December 31,		
	2010	2009	2008
	Stock Option Plans		
Assumptions:			
Expected term (years)	4.5	4.5	5.0
Expected volatility	90.4%	86.7%	72.4%
Risk-free interest rate	1.7%	1.9%	3.3%
Expected dividend yield	0.0%	0.0%	0.0%
Fair value:			
Weighted-average estimated grant date fair value per share	$ 2.10	$ 1.86	$ 5.31
Options granted to employees	57,920	675,004	141,539
Total estimated grant date fair value	$0.1 million	$1.3 million	$0.8 million

The estimated fair value of stock options that vested in the years ended December 31, 2010, 2009 and 2008, was $0.8 million, $1.2 million and $2.2 million, respectively.

Purchase rights for 3,528, 3,136 and 7,467 shares were granted under the ESPP during the years ended December 31, 2010, 2009 and 2008, respectively. The weighted-average estimated fair value of purchase rights granted under the ESPP for the years ended December 31, 2010, 2009 and 2008 was $1.20, $1.92 and $6.54 per share, respectively, using the Black-Scholes model with the following weighted-average assumptions:

	Year Ended December 31,		
	2010	2009	2008
	Employee Stock Purchase Plan		
Expected term (years)	0.5 – 1.0	0.5 – 1.0	0.5 – 1.0
Expected volatility	132.0%	157.0%	93.4%
Risk-free interest rate	0.27%	1.1%	0.4% – 5.1%
Expected dividend yield	0.0%	0.0%	0.0%

For employee stock options, the Company based its assumptions for the expected term on historical cancellation and exercise data, and the contractual term and vesting terms of the awards. Expected volatility is based on historical volatility of the Company's common stock, as well as that for a mature peer group of companies in the same industry. For employee purchase rights under the ESPP, the expected term is equal to the purchase period. The risk-free interest rate assumptions are based upon observed interest rates appropriate for the expected life of the Company's employee stock options and employee purchase rights. The Company does not anticipate paying any cash dividends in the foreseeable future, and therefore uses an expected dividend yield of zero.

Option Plan Activity

The following table summarizes stock option activity for the Company's stock option plans in the periods presented:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding as of December 31, 2007	859,987	$23.05		
Options granted	154,041	$ 9.22		
Options canceled, forfeited or expired	(238,884)	$21.85		
Outstanding as of December 31, 2008	775,144	$20.66		
Options granted	684,171	$ 2.82		
Options exercised	(760)	$ 8.64		
Options canceled, forfeited or expired	(390,656)	$19.06		
Outstanding as of December 31, 2009	1,067,899	$ 9.83		
Options granted	64,586	$ 3.06		
Options exercised	(1,250)	$ 2.94		
Options canceled, forfeited or expired	(65,903)	$13.55		
Outstanding as of December 31, 2010	1,065,332	$ 9.19	7.50	$219,311
Vested and expected to vest as of December 31, 2010	1,020,531	$ 9.46	7.44	$207,968
Exercisable as of December 31, 2010	618,531	$13.25	6.63	$110,948

The aggregate intrinsic value in the table above represents the total pre-tax intrinsic value (i.e., the difference between the Company's closing stock price on the last trading day of the period and the exercise price, multiplied by the number of in-the-money options) that would have been received by option holders if they had exercised all their options on December 31, 2010.

The intrinsic value of options exercised during the years ended December 31, 2010, 2009 and 2008 was $3,000, $1,000 and zero, respectively. As the Company believes it is more likely than not that no stock option related tax benefits will be realized, the Company does not record any net tax benefits related to exercised options.

Total estimated unrecognized stock-based compensation cost related to unvested stock options was $0.9 million as of December 31, 2010, which is expected to be recognized over the respective vesting terms of each award. The weighted average term of the unrecognized stock-based compensation expense is 2.5 years.

11. Restructuring

In the first quarter of 2009, the Company recorded a restructuring charge of $0.6 million for employee severance and related benefit costs related to a restructuring plan initiated in March 2009. The severance payments were made in the second quarter of 2009, and other personnel-related expenses such as employee benefits were paid over the remainder of 2009. These charges are included in "Restructuring charges" in the Company's statement of operations for the year ended December 31, 2009.

In June 2008, the Company implemented a corporate realignment to focus on the development of vosaroxin (the "2008 Restructuring"). For the year ended December 31, 2008, the Company recorded total charges of $5.9 million related to the 2008 Restructuring, including $3.5 million for employee severance and related benefits, $1.6 million for asset impairments, and $0.8 million for other facility closure expenses. For the year ended December 31, 2009, the Company recorded net charges of $1.3 million for the 2008 Restructuring, including $2.2 million for lease termination fees and $0.4 million for third-party commissions, partially offset by the reversal of $1.4 million of deferred rent. No liability remained as of December 31, 2009.

12. Income Taxes

No provision for income taxes was recorded in the periods presented due to tax losses incurred in each period. The income tax provision differs from the amount computed by applying the statutory income tax rate of 34% to pre-tax loss as follows:

	Year Ended December 31,		
	2010	2009	2008
Tax at statutory rate	$(8,359,472)	$(13,676,582)	$(12,642,344)
Current year net operating losses and temporary differences for which no tax benefit is recognized	6,972,997	6,340,457	12,223,875
Non-cash expense related to financings	1,245,792	7,145,779	—
Other permanent differences	140,683	190,346	418,469
Provision for income taxes	$ —	$ —	$ —

Deferred income taxes reflect the net tax effects of loss and credit carry-forwards and temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's deferred tax assets for federal and state income taxes are as follows:

	December 31,	
	2010	2009
Deferred tax assets:		
Net operating loss carry-forwards	$ 95,547,000	$ 87,303,000
Federal and state research credit carry-forwards	9,660,000	8,852,000
Capitalized research costs	5,098,000	5,181,000
Property and equipment	183,000	181,000
Accrued liabilities	1,808,000	1,857,000
Gross deferred tax assets	112,296,000	103,374,000
Valuation allowance	(112,296,000)	(103,374,000)
Net deferred tax assets	$ —	$ —

Realization of the deferred tax assets is dependent upon future taxable income, if any, the amount and timing of which are uncertain. Accordingly, the net deferred tax assets have been fully offset by a valuation allowance. The net valuation allowance increased by approximately $8.9 million, $7.7 million and $15.0 million during the years ended December 31, 2010, 2009 and 2008, respectively.

As of December 31, 2010, the Company had federal net operating loss carry-forwards of $253.6 million and federal research and development tax credit carry-forwards of $5.8 million. If not utilized, the federal net operating loss and tax credit carry-forwards will expire at various dates beginning in 2018. As of December 31, 2010, the Company had state net operating loss carry-forwards of $155.6 million, which begin to expire in 2012, and state research and development tax credit carry-forwards of $5.6 million, which do not expire.

Utilization of these net operating loss and tax credits carry-forwards may be subject to a substantial annual limitation due to the ownership change rules under Section 382 of the Internal Revenue Code of 1986, as amended (the "Code"). The limitations are applicable if an "ownership change," as defined in the Code, is deemed to have occurred or occurs in the future. The annual limitation may result in the expiration of net operating loss and credit carry-forwards before they can be utilized.

The Company recognizes the financial statement effect of tax positions when it is more likely than not that the tax positions will be sustained upon examination by the appropriate taxing authorities. As of December 31, 2010 and 2009, the Company had no unrecognized tax positions.

The Company files U.S. federal and California tax returns. The Company's wholly owned subsidiary files tax returns in the United Kingdom. To date, neither the Company nor its wholly owned subsidiary has been audited by the Internal Revenue Service, any state income tax authority or tax authority in the United Kingdom. Due to net operating loss carry-forwards, substantially all of the Company's tax years remain open to federal tax examination. The tax return for California is subject to a four year statute of limitations.

13. Guarantees and Indemnification

As permitted under Delaware law and in accordance with the Company's Bylaws, the Company indemnifies its officers and directors for certain events or occurrences, subject to certain limits, while the officer or director is or was serving at the Company's request in such capacity. The indemnification agreements with the Company's officers and directors terminate upon termination of their employment, but the termination does not affect claims for indemnification relating to events occurring prior to the effective date of termination. The

maximum amount of potential future indemnification is unlimited; however, the Company's officer and director insurance policy reduces the Company's exposure and may enable the Company to recover a portion of any future amounts paid. The Company believes that the fair value of these indemnification agreements is minimal. In addition, in the ordinary course of business the Company enters into agreements, such as licensing agreements, clinical trial agreements and certain services agreements, containing standard indemnifications provisions. The Company believes that the likelihood of an adverse judgment related to such indemnification provisions is remote. Accordingly, the Company has not recorded any liabilities for any of these agreements as of December 31, 2010.

14. Selected Quarterly Financial Data (unaudited)

	Three Months Ended							
	Mar. 31, 2010	June 30, 2010	Sep. 30, 2010	Dec. 31, 2010	Mar. 31, 2009	June 30, 2009	Sep. 30, 2009	Dec. 31, 2009
Revenue	$ 12,500	$ 14,583	$ —	$ —	$ 224,047	$ 3,512,500	$ 12,500	$ 12,500
Net loss	$(4,647,682)	$ (4,783,947)	$ (5,084,034)	$(10,071,822)	$(8,363,436)	$(22,878,464)	$(4,949,074)	$(4,035,072)
Deemed distribution to preferred stockholders	$ —	$ —	$ —	$ —	$ —	$(26,375,000)	$ —	$(1,188,400)
Loss attributable to common stockholders	$(4,647,682)	$ (4,783,947)	$ (5,084,034)	$(10,071,822)	$(8,363,436)	$(49,253,464)	$(4,949,074)	$(5,223,472)
Basic and diluted loss attributable to common stockholders per common share	$ (0.65)	$ (0.44)	$ (0.14)	$ (0.23)	$ (1.46)	$ (8.59)	$ (0.86)	$ (0.90)
Shares used in computing basic and diluted loss attributable to common stockholders per common share	7,142,434	10,912,203	36,969,986	43,879,448	5,734,961	5,735,478	5,736,530	5,779,792

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

Not applicable.

ITEM 9A. *CONTROLS AND PROCEDURES*

Disclosure Controls and Procedures

Based on their evaluation as of December 31, 2010, our Chief Executive Officer and Chief Financial Officer, with the participation of management, have concluded that, subject to the limitations described below, our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act) were effective at the reasonable assurance level.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2010. Management based its assessment on the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control—Integrated Framework.* Based on this evaluation, our management concluded that as of December 31, 2010, our internal control over financial reporting was effective.

The Company's internal control over financial reporting was not subject to attestation by the Company's registered public accounting firm pursuant to the rules of the Securities and Exchange Commission that permit the Company, as a non-accelerated filer, to provide only management's report in this annual report.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended December 31, 2010 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on the Effectiveness of Controls

Our disclosure controls and procedures provide our Chief Executive Officer and Chief Financial Officer with only reasonable assurances that our disclosure controls and procedures will achieve their objectives. However, our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal control over financial reporting can or will prevent all human error. A control system, no matter how well designed and implemented, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Furthermore, the design of a control system must reflect the fact that there are internal resource constraints, and the benefit of controls must be weighed relative to their corresponding costs. Because of the limitations in all control systems, no evaluation of controls can provide complete assurance that all control issues and instances of error, if any, within our company are detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur due to human error or mistake. Additionally, controls, no matter how well

designed, could be circumvented by the individual acts of specific persons within the organization. The design of any system of controls is also based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated objectives under all potential future conditions.

ITEM 9B. ***OTHER INFORMATION***

None.

PART III

Certain information required by Part III is omitted from this report because we will file with the SEC a definitive proxy statement pursuant to Regulation 14A, or the Proxy Statement, not later than 120 days after the year ended December 31, 2010, and certain information included therein is incorporated herein by reference.

ITEM 10. *DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE*

Information responsive to this item regarding directors and director nominees, executive officers, the board of directors and its committees, and certain corporate governance matters is incorporated herein by reference to the information set forth under the captions "Election of Nominees to the Board of Directors," "Information About the Board of Directors and Corporate Governance" and "Certain Information with Respect to Executive Officers" in our definitive Proxy Statement.

Code of Business Conduct & Ethics

We have adopted a Code of Business Conduct & Ethics which applies to all of our directors, officers and employees. A copy of our Code of Business Conduct & Ethics can be found on our website, www.sunesis.com, in the section titled *"Investors and Media"* under the subsection titled *"Corporate Governance."* Information found on our website is not incorporated by reference into this report. In addition, we intend to promptly disclose (1) the nature of any amendment to our Code of Business Conduct & Ethics that applies to our principal executive officer, principal financial officer, principal accounting officer or persons performing similar functions and (2) the nature of any waiver, including an implicit waiver, from a provision of our Code of Business Conduct & Ethics that is granted to one of these specified officers, the name of such person who is granted the waiver and the date of the waiver on our website in the future.

All additional information required by this Item 10 will be set forth in our definitive Proxy Statement and is incorporated in this report by reference.

ITEM 11. *EXECUTIVE COMPENSATION*

Information responsive to this item is incorporated herein by reference to the information set forth under the captions "Executive Compensation and Related Information" and "Information About the Board of Directors and Corporate Governance" in our definitive Proxy Statement.

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

Ownership of Sunesis Securities

Information responsive to this item is incorporated herein by reference to the information set forth under the caption "Security Ownership of Certain Beneficial Owners and Management" in our definitive Proxy Statement.

Equity Compensation Plan Information

The following table provides certain information with respect to our equity compensation plans in effect as of December 31, 2010:

Plan Category	(A) Number of Securities to be Issued upon Exercise of Outstanding Options	(B) Weighted Average Exercise Price of Outstanding Options	(C) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column A)
Equity Compensation Plans Approved by Stockholders(1)	1,039,624(2)	$9.20	390,816(3)
Equity Compensation Plans Not Approved by Stockholders(4)	25,708	$9.12	78,459
Total	1,065,332	$9.19	469,275

(1) Includes securities issuable under our 2005 Equity Incentive Award Plan, or 2005 Plan, and Employee Stock Purchase Plan, or ESPP.

(2) Excludes purchase rights currently accruing under the ESPP. Offering periods under the ESPP are 12-month periods, which are comprised of two six-month purchase periods. Eligible employees may purchase shares of common stock at a price equal to 85% of the lower of the fair market value of the common stock at the beginning of each offering period or the end of each semi-annual purchase period. Participation is limited to 20% of an employee's eligible compensation, subject to limitations under the Internal Revenue Code.

(3) Includes (i) 355,404 shares of common stock available for issuance under our 2005 Plan and (ii) 35,412 shares of common stock available for issuance under our ESPP. Beginning in 2006, the number of shares of common stock reserved under the 2005 Plan automatically increases on the first trading day each year by an amount equal to the lesser of: (i) 4% of the Company's outstanding shares of common stock outstanding on such date, (ii) 180,392 shares, or (iii) an amount determined by the Board of Directors. The number of shares of common stock reserved under our ESPP automatically increases on the first trading day each year by an amount equal to the least of: (i) 0.5% of our outstanding shares of common stock outstanding on such date, (ii) 22,549 or (iii) a lesser amount determined by our Board of Directors.

(4) Represents our 2006 Employment Commencement Incentive Plan.

The additional information required by this Item 12 concerning our non-stockholder approved equity compensation plans is discussed in the notes to our consolidated financial statements contained in Part II, Item 8 of this report and is incorporated herein by reference. Any other information required by this Item 12 will be set forth in our definitive Proxy Statement and is incorporated in this report by reference.

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

Information responsive to this item is incorporated herein by reference to the information set forth under the captions "Certain Relationships and Related Party Transactions" and "Information About the Board of Directors and Corporate Governance" in our definitive Proxy Statement.

ITEM 14. *PRINCIPAL ACCOUNTING FEES AND SERVICES*

Information responsive to this item is incorporated herein by reference to the information set forth under the caption "Independent Registered Public Accounting Firm" in our definitive Proxy Statement.

PART IV

ITEM 15. *EXHIBITS AND FINANCIAL STATEMENT SCHEDULES*

Exhibits and Financial Statement Schedules:

(a)(1) Financial Statements

	Page
Report of Independent Registered Public Accounting Firm	50
Consolidated Balance Sheets	51
Consolidated Statements of Operations	52
Consolidated Statements of Stockholders' Equity	53
Consolidated Statements of Cash Flows	54
Notes to Consolidated Financial Statements	55

(a)(2) Financial Statement Schedules

All financial statement schedules are omitted because they are not applicable, or the information is included in the financial statements or notes thereto.

(a)(3) Exhibits

A list of exhibits filed with this report or incorporated herein by reference is found in the Exhibit Index immediately following the signature page of this report.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, Sunesis Pharmaceuticals, Inc. has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized on March 29, 2011.

SUNESIS PHARMACEUTICALS, INC.

By: /s/ ERIC H. BJERKHOLT
Eric H. Bjerkholt
Senior Vice President, Corporate Development and Finance, Chief Financial Officer

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Daniel N. Swisher, Jr. and Eric H. Bjerkholt, and each of them, as his true and lawful attorneys-in-fact and agents, with full power of substitution for him, and in his name in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, and any of them or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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

Signature	Title	Date
/s/ JAMES W. YOUNG, PH.D. James W. Young, Ph.D.	Chairman of the Board	March 29, 2011
/s/ DANIEL N. SWISHER, JR. Daniel N. Swisher, Jr.	President, Chief Executive Officer and Director *(Principal Executive Officer)*	March 29, 2011
/s/ ERIC H. BJERKHOLT Eric H. Bjerkholt	Senior Vice President, Corporate Development and Finance, Chief Financial Officer *(Principal Financial Officer and Principal Accounting Officer)*	March 29, 2011
/s/ MATTHEW K. FUST Matthew K. Fust	Director	March 29, 2011
/s/ EDWARD HURWITZ Edward Hurwitz	Director	March 29, 2011
/s/ HELEN S. KIM Helen S. Kim	Director	March 29, 2011
/s/ DAYTON MISFELDT Dayton Misfeldt	Director	March 29, 2011
 Homer L. Pearce Ph.D.	Director	
/s/ DAVID C. STUMP,M.D. David C. Stump, M.D.	Director	March 29, 2011

EXHIBIT INDEX

Exhibit Number	Exhibit Description	Incorporated By Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
3.1	Amended and Restated Certificate of Incorporation of the Registrant	10-K/A	000-51531	3.1	5/23/2007	
3.2	Amended and Restated Bylaws of the Registrant	8-K	000-51531	3.2	12/11/2007	
3.3	Certificate of Designation of the Series A Preferred Stock of the Registrant	8-K	000-51531	3.3	4/3/2009	
3.4	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Registrant	S-8	333-160528	3.4	7/10/2009	
3.5	Certificate of Amendment to the Certificate of Designation of the Series A Preferred Stock of the Registrant	8-K	000-51531	3.4	11/2/2009	
3.6	Certificate of Amendment to the Certificate of Designation of the Series A Preferred stock of the Registrant	8-K	000-51531	3.5	1/21/2010	
3.7	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Registrant	8-K	000-51531	3.1	2/14/2011	
4.1	Reference is made to Exhibits 3.1, 3.2, 3.3, 3.4, 3.5, 3.6 and 3.7 above.					
4.2	Specimen Common Stock certificate of the Registrant					X
4.3	Investor Rights Agreement, dated April 3, 2009, by and among the Registrant and the purchasers identified on the signature pages thereto	8-K	000-51531	4.1	4/3/2009	
10.1*	1998 Stock Plan and Form of Stock Option Agreement	S-1/A	333-121646	10.1	1/27/2005	
10.2*	2001 Stock Plan and Form of Stock Option Agreement	S-1	333-121646	10.2	12/23/2004	
10.3*	2005 Equity Incentive Award Plan, as amended, and Form of Stock Option Agreement	10-K/A	000-51531	10.3	4/30/2009	
10.4*	Employee Stock Purchase Plan and Enrollment Form	10-Q	000-51531	10.4	11/9/2006	
10.5*	Form of Indemnification Agreement for directors and executive officers	S-1	333-121646	10.5	12/23/2004	
10.6	Warrant, dated June 11, 2003, issued to General Electric Capital Corporation	S-1	333-121646	10.21	12/23/2004	
10.7	Warrant, dated June 21, 2004, issued to General Electric Capital Corporation and Amendment No. 1 thereto, dated December 16, 2004	S-1/A	333-121646	10.22	4/29/2005	
10.8†	Collaboration Agreement, dated December 18, 2002, by and between the Registrant and Biogen Idec MA Inc. (successor to Biogen Inc.)	S-1/A	333-121646	10.26	1/27/2005	

Exhibit Number	Exhibit Description	Incorporated By Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.9†	Amendment No. 1 to Collaboration Agreement, dated June 17, 2003, between the Registrant and Biogen Idec MA Inc.	S-1/A	333-121646	10.27	1/27/2005	
10.10†	Amendment No. 2 to Collaboration Agreement, dated September 17, 2003, between the Registrant and Biogen Idec MA Inc.	S-1/A	333-121646	10.28	1/27/2005	
10.11†	Collaboration Agreement, dated August 25, 2004, between the Registrant and Biogen Idec, Inc.	S-1/A	333-121646	10.29	4/29/2005	
10.12†	License Agreement, dated October 14, 2003, by and between the Registrant and Dainippon Sumitomo Pharma Co., Ltd. (formerly known as Dainippon Pharmaceutical Co., Ltd.)	S-1/A	333-121646	10.36	4/29/2005	
10.13	Warrant, dated August 25, 2005, issued to Horizon Technology Funding Company II LLC	S-1/A	333-121646	10.40	9/1/2005	
10.14	Warrant, dated August 25, 2005, issued to Horizon Technology Funding Company III LLC	S-1/A	333-121646	10.41	9/1/2005	
10.15	Warrant, dated August 25, 2005, issued to Oxford Finance Corporation	S-1/A	333-121646	10.42	9/1/2005	
10.16	Warrant, dated September 9, 2005, issued to General Electric Capital Corporation					X
10.17*	Amended and Restated 2006 Employment Commencement Incentive Plan	10-K/A	000-51531	10.32	4/30/2009	
10.18	Common Stock and Warrant Purchase Agreement, dated as of March 17, 2006, among the Registrant and the investors listed on the signature pages thereto	8-K	000-51531	10.44	3/22/2006	
10.19	Registration Rights Agreement, dated as of March 17, 2006, among the Registrant and the investors listed on the signature pages thereto	8-K	000-51531	10.45	3/22/2006	
10.20	Form of Warrant	8-K	000-51531	10.46	3/22/2006	
10.21†	Sublease, dated December 22, 2006, by and between the Registrant and Oncology Therapeutics Network Joint Venture, L.P., for office space located at 395 Oyster Point Boulevard, South San Francisco, California	10-K	000-51531	10.47	3/17/2008	
10.22*	Consulting Agreement, dated August 17, 2006, by and between the Registrant and Homer L. Pearce, Ph. D.	10-Q	000-51531	10.49	5/9/2007	
10.23*	Consulting Agreement, dated September 2, 2006, by and between the Registrant and David C. Stump, M. D.	10-Q	000-51531	10.50	5/9/2007	
10.24*	Forms of Stock Option Grant Notice and Stock Option Agreement under the 2005 Equity Incentive Award Plan	8-K	000-51531	10.52	9/19/2007	

Exhibit Number	Exhibit Description	Incorporated By Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.25*	Amended and Restated Executive Severance Benefits Agreement, dated December 23, 2008, by and between the Registrant and Steven B. Ketchum, Ph.D.	10-K	000-51531	10.43	4/3/2009	
10.26*	Second Amended and Restated Executive Severance Benefits Agreement, dated December 24, 2008, by and between Registrant and Daniel N. Swisher, Jr.	10-K	000-51531	10.44	4/3/2009	
10.27*	Second Amended and Restated Executive Severance Benefits Agreement, dated December 24, 2008, by and between Registrant and Eric H. Bjerkholt	10-K	000-51531	10.45	4/3/2009	
10.28*	Second Amended and Restated Executive Severance Benefits Agreement, dated December 23, 2008, by and between Registrant and James W. Young, Ph.D.	10-K	000-51531	10.46	4/3/2009	
10.29*	Forms of Stock Option Grant Notice and Stock Option Agreement for Automatic Grants to Outside Directors under the 2005 Equity Incentive Award Plan	10-Q	000-51531	10.69	11/7/2008	
10.30	Forms of Stock Option Grant Notice and Stock Option Agreement under the Amended and Restated 2006 Employment Commencement Incentive Plan	8-K	000-51531	10.71	12/23/2008	
10.31	Intellectual Property Assignment and License Termination Agreement by and between the Registrant and SARcode Corporation, dated March 6, 2009	8-K	000-51531	10.72	3/10/2009	
10.32	Form of Amended and Restated Convertible Secured Promissory Notes issued by SARcode Corporation to the Registrant, dated March 6, 2009	8-K	000-51531	10.73	3/10/2009	
10.33	Summary of Non-Employee Director Cash Compensation Arrangements	10-Q	000-51531	10.2	8/13/2010	
10.34	Intellectual Property Assignment and License Agreement, dated March 6, 2009, by and between the Company and SARcode Corporation, and related Exhibit 3.2	8-K	000-51531	10.72, 10.73	3/10/2009	
10.35	Securities Purchase Agreement, dated March 31, 2009, by and among the Registrant and the purchasers identified on the signature pages thereto	8-K	000-51531	10.1	4/3/2009	
10.36	Form of Warrant to purchase shares of Common Stock	8-K	000-51531	10.2	4/3/2009	
10.37*	Sunesis Pharmaceuticals, Inc. Amended and Restated Change of Control Payment Plan	8-K	000-51531	10.1	9/21/2010	
10.38*	Sunesis Pharmaceuticals, Inc. Amended and Restated 2009 Bonus Program	8-K	000-51531	10.2	4/2/2010	

Exhibit Number	Exhibit Description	Incorporated By Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.39	Agreement Regarding Private Placement of Securities of Sunesis Pharmaceuticals, Inc., dated as of June 29, 2009, by and among the Registrant and the investors identified on the signature pages thereto	8-K	000-51531	10.1	7/2/2009	
10.40*	Medical benefits arrangement with James W. Young, Ph.D.	10-Q	000-51531	10.65	7/28/2009	
10.41	Second Agreement Regarding Private Placement of Securities of Sunesis Pharmaceuticals, Inc., dated as of October 27, 2009, by and among the Registrant and the investors identified on the signature pages thereto	8-K	000-51531	10.66	11/2/2009	
10.42	Third Agreement Regarding Private Placement of Securities of Sunesis Pharmaceuticals, Inc., dated as of January 19, 2010, by and among the Registrant and the investors identified on the signature pages thereto	8-K	000-51531	10.67	1/21/2010	
10.43	Sales Agreement, dated January 20, 2010, between the Registrant and Cantor Fitzgerald & Co.	8-K	000-51531	10.67	1/21/2010	
10.44	Fourth Agreement Regarding Private Placement of Securities of Sunesis Pharmaceuticals, Inc., dated as of March 29, 2010, by and among the Registrant and the investors identified on the signature pages thereto	8-K	000-51531	10.1	4/2/2010	
10.45	Sales Agreement, dated April 29, 2010, between the Registrant and Cantor Fitzgerald & Co.	8-K	000-51531	10.1	4/29/2010	
10.46*	Sunesis Pharmaceuticals, Inc. 2010 Bonus Program	8-K	000-51531	10.2	9/21/2010	
10.47	Underwriting Agreement, dated September 30, 2010, by and between the Registrant and Cowen and Company LLC	8-K	000-51531	1.1	10/1/2010	
10.48	Form of Warrant to Purchase Common Stock of the Registrant	8-K	000-51531	4.1	10/1/2010	
10.49	Master Services Agreement, dated November 3, 2003, by and between the Registrant and AAI Developmental Services Inc.					X
10.50	First Amendment to Master Services Agreement, dated September 11, 2006, by and between the Registrant and AAIPharma Inc.					X
10.51	Second Amendment to Master Services Agreement, dated May 2, 2008, by and between the Registrant and AAIPharma Inc.					X
10.52	Third Amendment to Master Services Agreement, dated November 3, 2009, by and between the Registrant and AAIPharma Services Corp.					X
10.53	Master Services Agreement, dated January 1, 2010, by and between the Registrant and Albany Molecular Research, Inc.					X

Exhibit Number	Exhibit Description	Incorporated By Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.54	Master Services Agreement, dated June 21, 2010, by and between the Registrant and Icon Clinical Research Limited					X
21.1	Subsidiaries of the Registrant	10-K	000-51531	21.1	3/17/2008	
23.1	Consent of Independent Registered Public Accounting Firm					X
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Exchange Act					X
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Exchange Act					X
32.1#	Certification of Chief Executive Officer and Chief Financial Officer pursuant to 13a-14(b) or 15d-14(b) of the Exchange Act					X

* Management contract, compensatory plan or arrangement.

† Portions of the exhibit have been omitted pursuant to a request for confidential treatment. The omitted information has been filed separately with the Securities and Exchange Commission.

In accordance with Item 601(b)(32)(ii) of Regulation S-K and SEC Release Nos. 33-8238 and 34-47986, Final Rule; Management's Reports on Internal Control over Financial Reporting and Certification of Disclosure in Exchange Act Periodic Reports, the Certification furnished in Exhibit 32.1 hereto is deemed to accompany this Form 10-K and will not be filed for purposes of Section 18 of the Exchange Act. Such certification will not be deemed incorporated by reference into any filing under the Securities Act or the Exchange Act, except to the extent that the registrant specifically incorporates it by reference.

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