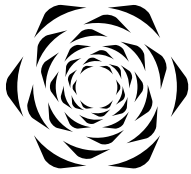


sunesis

Letter to Stockholders

•

2015 Annual Meeting of Stockholders
Notice and Proxy Statement

•

2014 Annual Report on Form 10-K

April 28, 2015

Dear Fellow Stockholders,

At Sunesis Pharmaceuticals, Inc. (Sunesis), our mission is to develop and commercialize new medicines to treat patients with life-threatening illnesses. In 2014, we believe we made progress across all our programs. Most importantly, in October 2014, we unblinded the Phase 3 VALOR trial and presented the results in a late breaking session of the American Society of Hematology (ASH) Annual Meeting in December.

The goal of the VALOR trial was to assess, in a large, randomized, double-blind trial, the risk-benefit profile of combining our lead product candidate vosaroxin with cytarabine for the treatment of relapsed and refractory acute myeloid leukemia (AML).

AML is the most common of all adult leukemias, yet unlike other hematologic malignancies, it has seen almost no progress in the introduction of new therapeutics over the last 40 years. AML is a very rapidly progressing cancer of the blood characterized by the uncontrolled proliferation of immature blast cells in the bone marrow. The median age at diagnosis of AML is 63 years and its incidence increases with age. Five-year survival also dramatically decreases as age increases. Approximately 21,000 patients are expected to be diagnosed with AML in the U.S. in 2015. Unfortunately most of these patients are either refractory to frontline therapy or eventually relapse. Thus, there remains a critical need for new treatment options to address a disease where standards of care have changed little over the last several decades.

We believe that the totality of the VALOR data demonstrates a compelling overall clinical benefit in certain relapsed and refractory AML patient populations, particularly among the most difficult to treat patient groups with refractory or early relapsed disease or with an age of 60 years or older.

Also at ASH, encouraging results were presented in an oral session from an ongoing Phase 1b/2 trial sponsored by the MD Anderson Cancer Center of vosaroxin and cytarabine in previously untreated older patients with AML and high risk MDS. Results from this novel combination of vosaroxin with a leading hypomethylating agent showed good tolerability and a composite complete response rate of 76%, a meaningful outcome within the current clinical landscape for the older frontline AML/MDS patient population.

The entirety of our clinical experience to date with vosaroxin suggest that it is an active therapy with clinically important benefit and manageable toxicity and, if available, could make a substantial impact on the treatment of a disease in which far too few treatment options exist. For this reason, we are moving forward with active dialogue among regulators in Europe and the US.

In Europe, we have submitted a letter of intent describing our intention to file a marketing authorization application (MAA) with the European Medicines Agency (EMA). The letter initiates the process leading to the assignment of a Rapporteur and Co-Rapporteur, who are the two appointed members of the EMA's Committee for Human Medicinal Products. Our plan is to meet with the Rapporteurs mid-2015 to discuss our potential filing and to submit the MAA application thereafter.

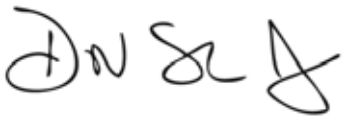
In the U.S., we are in dialogue with the FDA. We appreciate the FDA's level of engagement to date and their underlying commitment to address the unmet medical needs in AML. We look forward to gaining further clarity on our regulatory direction in the U.S. around mid-2015, with the hope that we can proceed to a rolling New Drug Application submission in the second half of the year.

In addition to our progress with vosaroxin, we also look forward to making headway with our pipeline of company- and partner-directed novel kinase inhibitors, including moving our differentiated BTK inhibitor, SNS-062, toward the clinic with the future filing of an Investigational New Drug (IND) application, and the selection of a development candidate followed by IND-enabling studies in our PDK-1 program. In addition to our proprietary programs, we have partnered with Millennium: The Takeda Oncology Company, to develop a clinical-stage pan-RAF inhibitor MLN-2480, which offers significant opportunities in melanoma and other solid tumor cancers. We hope to elucidate these opportunities further in 2015.

We ended 2014 with approximately $43 million in cash which, based on our current operating plan, provides us with the resources to fund operations through the first quarter of 2016, a period which includes the potential submission of European and U.S. filings for initial regulatory approval of vosaroxin.

Sunesis has made important progress since the unblinding of the VALOR trial thanks to the hard work and dedication of our talented employees, as well as the support of our many stakeholders, including the medical community and our investors. We remain steadfast in our commitment to helping patients with cancer and in our conviction that vosaroxin represents an important new treatment option for AML. We appreciate your continued support for Sunesis and look forward to updating you on our progress throughout the coming year.

Sincerely,



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

This letter contains forward-looking statements, including statements related to Sunesis' overall strategy, the design, conduct, progress, timing and results of Sunesis' clinical trials, the preliminary analysis, assessment and conclusions of the results of the VALOR trial, the commercial potential of vosaroxin, and the sufficiency of Sunesis' cash resources. Words such as "believe," "conviction," "could," "demonstrate," "develop," "encourage," "expect," "goal," "hope," "intention," "look forward," "mission," "plan," "potential," "proceed," "progress," "suggest," 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 development and commercialization of vosaroxin, 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, risks related to the conduct of Sunesis' clinical trials, and the risk that Sunesis' clinical studies for vosaroxin may not lead to regulatory approval. 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, 2014 and Sunesis' 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 Sunesis' 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 8, 2015

To the Stockholders of Sunesis Pharmaceuticals, Inc.:

The 2015 annual meeting of stockholders of Sunesis Pharmaceuticals, Inc. will be held on Monday, June 8, 2015 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 2018 annual meeting of stockholders, as described in this proxy statement.
2. To approve, on an advisory basis, the compensation of the Sunesis named executive officers, as disclosed in this proxy statement.
3. To ratify the selection of Ernst & Young LLP as the independent registered public accounting firm of Sunesis for the year ending December 31, 2015.
4. 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 this proxy statement. The record date for the annual meeting is April 10, 2015. 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.

Important notice regarding the availability of proxy materials for the annual meeting of stockholders to be held on June 8, 2015 at 10:00 a.m., local time, at 395 Oyster Point Boulevard, Suite 400, South San Francisco, California 94080. This proxy statement and our annual report for the fiscal year ended December 31, 2014, including consolidated financial statements, are available to you at: *www.proxyvote.com.*

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

South San Francisco, California
April 28, 2015

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 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 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 meeting, you must obtain a proxy issued in your name from that record holder.

[THIS PAGE INTENTIONALLY LEFT BLANK]

TABLE OF CONTENTS

[THIS PAGE INTENTIONALLY LEFT BLANK]

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

PROXY STATEMENT FOR THE 2015 ANNUAL MEETING OF STOCKHOLDERS

JUNE 8, 2015

INFORMATION CONCERNING SOLICITATION AND VOTING

General

We are furnishing these proxy materials 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 2015 annual meeting of stockholders, or the Annual Meeting, to be held on June 8, 2015, 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.

These proxy materials, including a copy of our Annual Report on Form 10-K for the year ended December 31, 2014, this proxy statement and the Notice of Internet Availability of Proxy Materials are first being distributed and made available to stockholders on or about April 28, 2015. 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.

Pursuant to rules adopted by the U.S. Securities and Exchange Commission, or the SEC, we have elected to provide access to our proxy materials over the Internet. Accordingly, we are sending a Notice of Internet Availability of Proxy Materials, or the Notice, to our stockholders of record. If your shares are held in an account at a brokerage firm, bank, dealer or other similar organization, the Notice or voting instructions are being forwarded to you by that organization. The Notice is not a voting form; however, the Notice provides instructions on how to vote by Internet, by telephone, or 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. We are providing 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 Notice and the full sets of proxy materials to the stockholders as described above on or about April 28, 2015.

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.

If you receive more than one Notice or set of proxy materials, your shares may be registered in more than one name or in different accounts. Please follow the voting instructions in the Notice or proxy materials to ensure that all of your shares are voted.

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 for by us. We may also reimburse brokerage firms, banks and other agents for the cost of forwarding proxy materials to beneficial owners.

Voting Rights

Our common stock is the only type of security entitled to vote at the Annual Meeting. Only stockholders of record at the close of business on April 10, 2015 are entitled 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 owned as of April 10, 2015. 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.

If on April 10, 2015, 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 vote by proxy as instructed below to ensure your vote is counted.

If on April 10, 2015, 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.

Matters Submitted to a Vote of Stockholders, Voting Quorum, Abstentions and Voting Requirements

There are three matters scheduled for a vote at the Annual Meeting:

- Proposal No. 1: the election of three directors nominated by the board of directors to serve until the 2018 annual meeting of stockholders;
- Proposal No. 2: the advisory approval of the compensation of our named executive officers, as disclosed in this proxy statement in accordance with SEC rules; and
- Proposal No. 3: the ratification of the selection of Ernst & Young LLP as our independent registered public accounting firm for the year ending December 31, 2015.

The board of directors knows of no other matters that will be presented for consideration at the Annual Meeting.

In order to conduct any business at the Annual Meeting, a quorum must be present in person or represented by valid proxy. A quorum will be present if stockholders holding at least a majority of the

outstanding shares of the common stock entitled to vote at the Annual Meeting are present in person or represented by proxy at the Annual Meeting. As of April 10, 2015, the record date for the Annual Meeting, there were 70,617,432 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. If there is no quorum, either the chairman of the Annual Meeting or the holders of a majority of shares entitled to vote and present either in person or represented by proxy may adjourn the meeting to another date.

Votes will be counted by the inspector of elections appointed for the Annual Meeting. With respect to Proposal No. 1, you may vote "For" all the nominees to the board of directors, "Withhold" your vote for all nominees, or you may "Withhold" your vote for any nominee you specify. With respect to Proposal Nos. 2 and 3, you may vote "For" or "Against" or abstain from voting. Abstentions will be counted towards the vote total with respect to Proposal Nos. 2 and 3, and will have the same effect as "Against" votes. Broker non-votes, which are discussed in greater detail below, 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 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 advisory approval of the compensation of our named executive officers, as disclosed in this proxy statement in accordance with SEC rules, must receive "For" votes from the holders of a majority of shares entitled to vote on this matter and present either in person or represented 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, which relates to the ratification of the selection of Ernst & Young LLP as our independent registered public accounting firm for 2015, must receive "For" votes from the holders of a majority of shares entitled to vote on this matter and present either in person or represented by proxy. If you "Abstain" from voting, it will have the same effect as an "Against" vote. Broker non-votes will have no effect; however, Proposal No. 3 is considered a routine matter, and therefore no broker non-votes are expected to exist in connection with Proposal No. 3.

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 a proxy card that you may request. The envelope you may be provided 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 that you may request, simply complete, sign and date the 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, dial toll-free 1-800-690-6903 using a touch-tone phone and follow the recorded instructions. You will be asked to provide the control number from the Notice. Your telephone vote must be received by 11:59 p.m., Eastern Time, on June 7, 2015 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 Notice. Your internet vote must be received by 11:59 p.m., Eastern Time, on June 7, 2015 to be counted.

We are providing stockholders who have previously requested to receive paper copies of the proxy materials with paper copies of the proxy materials instead of a 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, Executive 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

If you are a beneficial owner whose stock is held in street name, you should have received a Notice containing voting instructions from your bank, broker or other nominee, rather than from us. Simply follow the voting instructions in such 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 25, 2015. Beneficial owners will not otherwise receive a paper or email copy of the proxy materials.

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.

The Annual Meeting will be held on Monday, June 8, 2015 at 10:00 a.m. Pacific Time at our principal executive offices located at 395 Oyster Point Boulevard, Suite 400, South San Francisco, California 94080. Directions to the Annual Meeting may be found at *www.sunesis.com/site/contact_us.php*. 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 10, 2015 as well as a proxy from the record holder to the stockholder.

Voting of Proxies

Stockholder of Record

If you are a stockholder of record and you return a signed proxy card to us or otherwise vote before the Annual Meeting, we will vote your shares as you direct. 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 the three directors nominated by the board of directors to serve until the 2018 annual meeting of stockholders;
- Proposal No. 2: "For" the advisory approval of the compensation of our named executive officers, as disclosed in this proxy statement in accordance with SEC rules;
- Proposal No. 3: "For" the ratification of the selection of Ernst & Young LLP as our independent registered public accounting firm for the year ending December 31, 2015; and
- At the proxyholder's discretion, on such other matters, if any, that may come before the Annual Meeting.

Beneficial Owner

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 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.

Under the rules and interpretations of the NASDAQ Stock Market LLC, or NASDAQ, "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 executive compensation, including the advisory stockholder vote on executive compensation and on the frequency of stockholder votes on executive compensation, and, accordingly, include Proposal Nos. 1 and 2. We encourage you to provide voting instructions to the organization that holds your shares to ensure that your vote is counted on all proposals.

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.

Internet Availability of Proxy Materials

This proxy statement, our Annual Report on Form 10-K for the year ended December 31, 2014 and a letter to stockholders are available at *https://materials.proxyvote.com/867328.*

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 with the SEC 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.

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 VOTE BY PROXY 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 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 for a three-year term and until their successors are duly elected and qualified, or their earlier death, resignation or removal. In accordance with our amended and restated certificate of incorporation and bylaws, our Board may fill any vacancy on the Board by appointment.

The three nominees for Class I director are Steve R. Carchedi, Helen S. Kim, and Dayton Misfeldt, each of whom currently serves as a Class I director whose term expires at the Annual Meeting. If re-elected at the Annual Meeting, each of these nominees would serve until our 2018 annual meeting of stockholders and until his or her successor is elected and qualified, or, if sooner, until his or her death, resignation or removal. Each nominee has indicated his or her willingness to continue to serve as a director if re-elected. Our management has no reason to believe that any nominee will be unable to serve. In the event that any 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 Annual Meeting. Proxies cannot be voted for more than three persons. The three nominees nominated by the Board to serve as Class I 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.

The following table sets forth certain information as of March 15, 2015 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.	70	2000
Daniel N. Swisher, Jr.	51	2004
Steve R. Carchedi	53	2013
Matthew K. Fust	50	2005
Steven B. Ketchum, Ph.D.	50	2012
Helen S. Kim	52	2009
Dayton Misfeldt	41	2009
Homer L. Pearce, Ph.D.	62	2006
David C. Stump, M.D.	65	2006

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 I Nominees for Election to the Board of Directors for a Three-Year Term Expiring in 2018

Steve R. Carchedi has served as the Chief Executive Officer of Cornerstone Pharmaceuticals, Inc., a clinical stage, oncology-focused pharmaceutical company, since October 2014. Mr. Carchedi previously served as the President, Commercial Operations for Mallinckrodt Specialty Pharmaceuticals, the Pharmaceuticals business of Covidien plc from 2012 to 2013. Having held key positions at several leading multinational pharmaceutical companies, previously, he served as Chief Marketing Officer for General Electric (GE)

Healthcare-MDx where he was responsible for leading worldwide marketing for GE's Medical Diagnostics business. Prior to joining GE Healthcare, Mr. Carchedi held senior commercial leadership positions at Endo Pharmaceuticals, Enzon Pharmaceuticals and McNeil Specialty Pharmaceuticals, a subsidiary of Johnson & Johnson, Eli Lilly & Company and Bristol Myers Squibb. Mr. Carchedi holds a Bachelor of Science in marketing from the West Chester University and a Masters in Business Administration in marketing from Drexel University. Mr. Carchedi also currently serves on the board of directors of Bionumerik Pharmaceuticals, Inc. The Board has concluded that Mr. Carchedi should serve on our Board due to his experience in oncology drug development and commercialization, which the Board believes are valuable as we continue our drug development efforts.

Helen S. Kim currently serves as a strategic advisor to NGM Biopharmaceuticals, Inc., where she served as the chief business officer from August 2009 to January 2012. Prior to joining NGM, Ms. Kim was the chief executive officer of TRF Pharma, where she served from December 2008 to June 2009. Prior to her service at TRF Pharma, 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 previously served on the board of Immunocellular Therapeutics, Ltd., a publicly traded biotechnology company, and currently serves on the board of West Coast Clinical Trial Global, a privately held global contract research organization and ForSight VISION4, Inc., a private eye care device company. Ms. Kim holds a B.S. in Chemical Engineering from Northwestern University and an M.B.A. from the University of Chicago. 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 currently serves on the board of directors of Interleukin Genetics, Inc., a genetic testing healthcare company. Mr. Misfeldt received a B.A. in Economics from the University of California, San Diego. 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 2016 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 Chief Executive Officer. 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 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 his prior history as our Chief Executive Officer 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.

Steven B. Ketchum, Ph.D. served as our Senior Vice President, Research and Development from June 2008 to February 2012. In February 2012, Dr. Ketchum accepted the position of President of Research and Development, Senior Vice President at Amarin Corporation plc, a biopharmaceutical company, and concurrently transitioned from his executive role to a member of our Board. 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. The Board has concluded Dr. Ketchum should serve on our Board due to his tenure at Sunesis and his scientific and regulatory expertise and industry background, which position him to make an effective contribution to the Board, and which the Board believes to be particularly important as we continue our drug development efforts and progress towards potential future regulatory filings.

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. Dr. Pearce 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 are valuable as we continue our drug development efforts.

Class III Directors Continuing in Office Until the 2017 Annual Meeting

Matthew K. Fust is a board member and advisor to life sciences companies. He retired as Executive Vice President and Chief Financial Officer at Onyx Pharmaceuticals, Inc., a biopharmaceutical company, where he served from January 2009 to October 2013. 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. In addition, Mr. Fust serves as a member of the board of directors of MacroGenics, Inc., a biopharmaceutical company, and Ultragenyx Pharmaceutical Inc., a biotechnology company, Dermira, Inc., a biotechnology company and Atara Biotherapeutics, a biotechnology company. 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, in particular 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. was most recently Executive Vice President, Research and Development at Human Genome Sciences, Inc., a biopharmaceutical company, serving there from November 1999 until December 2012. From December 2003 to May 2007, Dr. Stump served as Executive Vice President, 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. Dr. Stump is a member of the board of directors of Dendreon Corporation, a biotechnology company, and MacroGenics, Inc., a biopharmaceutical company, and a member of

the board of trustees of 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 also serves as non-executive chairman of the board of directors of Cerus Corporation, a biopharmaceutical company. 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 our 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.

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

ADVISORY VOTE ON EXECUTIVE COMPENSATION

Under the Dodd-Frank Wall Street Reform and Consumer Protection Act, or the Dodd-Frank Act, and Section 14A of the Exchange Act, our stockholders are entitled to vote to approve, on an advisory basis, the compensation of our named executive officers as disclosed in this proxy statement in accordance with SEC rules.

This vote is not intended to address any specific item of compensation, but rather the overall compensation of our named executive officers and the philosophy, policies and practices described in this proxy statement. The compensation of our named executive officers subject to the vote is disclosed in the Compensation Discussion and Analysis, the compensation tables, and the related narrative disclosure contained in this proxy statement. As discussed in those disclosures, we believe that our compensation policies and decisions are focused on pay-for-performance principles and strongly aligned with our stockholder's interests and consistent with current market practices. Compensation of our named executive officers is designed to enable us to attract and retain talented and experienced executives to lead us successfully in a competitive environment.

Accordingly, the Board is asking the stockholders to indicate their support for the compensation of our named executive officers as described in this proxy statement by casting a non-binding advisory vote "FOR" the following resolution:

> "RESOLVED, that the compensation paid to our named executive officers, as disclosed pursuant to Item 402 of Regulation S-K, including the Compensation Discussion and Analysis, compensation tables and narrative discussion is hereby APPROVED."

Because the vote is advisory, it is not binding on the Board or the Company. Nevertheless, the views expressed by the stockholders, whether through this vote or otherwise, are important to management and the Board and, accordingly, the Board and the compensation committee of the Board intend to consider the results of this vote in making determinations in the future regarding executive compensation arrangements.

Advisory approval of this proposal requires the 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.

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

PROPOSAL NO. 3

RATIFICATION OF THE 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, 2015 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. 3 to ratify the selection of Ernst & Young as our independent registered public accounting firm for the year ending December 31, 2015. The affirmative vote of the holders of a majority of the shares present in person or represented by proxy and entitled to vote will be required to ratify this Proposal No. 3. 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. However, Proposal No. 3 is considered a routine matter, and therefore no broker non-votes are expected to exist in connection with Proposal No. 3.

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

INFORMATION ABOUT THE BOARD OF DIRECTORS AND CORPORATE GOVERNANCE

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. Young, Ketchum, Pearce and Stump, and Messrs. Carchedi, Fust 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 the previous consulting relationships with Drs. Pearce and Stump, the relationships of Mr. Misfeldt and Ms. Kim with certain of our principal stockholders, Dr. Young's position as our Executive Chairman until April 3, 2009 and compensation paid to Dr. Young in connection with such employment, and Dr. Ketchum's position as our Senior Vice President, Research and Development until January 31, 2012 and compensation paid to Dr. Ketchum in connection with such employment. In 2014, neither Dr. Pearce nor Dr. Stump received consulting fees pursuant to these previous arrangements, nor are any fees outstanding, and neither Dr. Young nor Dr. Ketchum received any compensation other than as described under "*Director Compensation*" below. Our Board does not believe that these stockholder and former employment relationships or 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 is 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 standing committees of the Board 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 the development of vosaroxin, including our ability to raise additional capital to complete the development and potential commercialization 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 effective 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 of the Board, or 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.

Meetings of the Board of Directors

Our Board held seven meetings during 2014. Each Board member attended 75% or more of the aggregate meetings of the Board and of the committees on which he or she served.

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 seven times during 2014.

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 2014 for each of the committees of the Board:

Name	Audit	Compensation	Nominating and Corporate Governance
Steve R. Carchedi		X	
Matthew K. Fust	X*	X	
Helen S. Kim	X		
Dayton Misfeldt		X*	X
Homer L. Pearce, Ph.D.			X*
David C. Stump, M.D.	X		
Total Meetings in 2014	5	8	2

* Committee Chairperson.

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 or her 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 Ms. Kim 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 (1)

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 2014, 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, 2014 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 Auditing Standard No. 16, *Communications with Audit Committees*, as adopted by the PCAOB, 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, 2014.

Matthew K. Fust, *Chairman*
Helen S. Kim
David C. Stump, M.D.

(1) 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;

- assessing and monitoring whether any of our compensation policies and programs has the potential to encourage excessive risk-taking;

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

- 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.

The Compensation Committee is chaired by Mr. Misfeldt, and also includes Messrs. Carchedi and Fust. All members of our Compensation Committee are "independent" (as independence is currently defined in Rule 5605(a)(2) 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 Internal Revenue Code of 1986, as amended, or the Code, and a "non-employee" director within the meaning of Rule 16b-3 of the rules promulgated under the Exchange Act.

Under its charter, the Compensation Committee may form, and delegate authority to, subcommittees, as appropriate. In addition, under its charter, the Compensation Committee has the authority to obtain, at the expense of the Company, advice and assistance from internal and external legal, accounting or other advisors and other external resources that the Compensation Committee considers necessary or appropriate in the performance of its duties. The Compensation Committee has direct responsibility for the oversight of the work of any advisors engaged for the purposes of advising the Compensation Committee. In particular, the Compensation Committee has the sole authority to retain compensation consultants to assist in its evaluation of executive and director compensation, including the authority to approve the consultant's reasonable fees and other retention terms. Under its charter, the Compensation Committee may select, or receive advice from, a compensation consultant, legal counsel or other advisor to the Compensation Committee, other than in-house legal counsel and certain other types of advisers, only after taking into consideration six factors, prescribed by the SEC and NASDAQ, that bear upon the adviser's independence; however, there is no requirement that any adviser be independent.

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, both of whom are "independent" (as independence is currently defined in Rule 5605(a)(2) of the 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 director 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 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.

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 Nominating 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 2014.

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 2014, Mr. Swisher 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. Our Corporate Governance Guidelines can be found on our website, *www.sunesis.com*, under the section titled "Investors & Media" and under the subsection "Corporate Governance."

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, 2014, our executive officers, directors and greater than 10% stockholders complied with all Section 16(a) filing requirements.

Compensation Committee Interlocks and Insider Participation

During 2014, the Compensation Committee consisted of Messrs. Misfeldt, Carchedi and Fust. No member of the Compensation Committee is an officer or employee of Sunesis, and none of our executive officers serve as a director or member of a compensation committee of any entity that has one or more executive officers serving as a member of our Board or Compensation Committee.

Director Compensation

Board and Committee Fees and Awards.

On the first day of the calendar quarter following the date of our annual meeting of stockholders and on the three-month anniversary thereof for the subsequent three quarters, each non-employee director of our Board (other than the Board Chairman) is entitled to receive a quarterly payment of $10,000 and the non-employee Board Chairman is entitled to receive a quarterly payment of $15,000, each in connection with his or her services as a director and Board Chairman, respectively. Additionally, on the same dates as above, the non-employee director who serves as chairman of the Audit Committee, Compensation Committee or Nominating Committee is entitled to receive a quarterly payment of $5,000, $3,750 and $1,875, respectively, for service as chairman. Each non-employee director who serves as a committee member of the Audit Committee, Compensation Committee or Nominating Committee is entitled to receive a quarterly payment of $2,500, $1,875 and $1,250, respectively, for service as a member of each such committee.

Our CEO did not receive any additional compensation in 2014 for his service on our Board.

On June 30, 2014, each non-employee director of our Board received a grant of non-qualified stock options to purchase 20,000 shares of our common stock under our 2011 Equity Incentive Plan, or the 2011 Plan. Each of these options vests monthly over a two-year period.

Director Compensation Table

The following table sets forth the compensation information for our non-employee directors for the year ended December 31, 2014. The compensation received by Mr. Swisher, as a named executive officer, is set forth in the "*Executive Compensation and Related Information—Summary Compensation Table*" in this proxy statement.

Name	Fees Earned or Paid in Cash ($)(1)	Option Awards ($)(2)(3)	Total ($)
Steve R. Carchedi	$47,500	$87,038	$134,538
Matthew K. Fust	67,500	87,038	154,538
Steven B. Ketchum	40,000	87,038	127,038
Helen S. Kim	50,000	87,038	137,038
Dayton Misfeldt	60,000(4)	87,038	147,038
Homer L. Pearce, Ph.D.	47,500	87,038	134,538
David C. Stump M.D.	50,000	87,038	137,038
James W. Young, Ph.D.	60,000	87,038	147,038

(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 the 2011 Plan in the year ended December 31, 2014. These amounts have been calculated in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718, or 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 11, *Stock-Based Compensation*, of the Notes to Consolidated Financial Statements in our Annual Report on Form 10-K for the year ended December 31, 2014, which identifies assumptions made in the valuation of option awards in accordance with FASB ASC Topic 718.

(3) On June 30, 2014, each non-employee director of our Board received a grant of non-qualified stock options to purchase 20,000 shares of our common stock. The aggregate grant date fair value of each such option award was $87,038. As of December 31, 2014, each non-employee director held stock options to purchase the following aggregate number of shares of our common stock: Mr. Carchedi held options to purchase 50,000 shares of our common stock; Mr. Fust held options to purchase 143,335 shares of our common stock; Dr. Ketchum held options to purchase 225,570 shares of our common stock; Ms. Kim held options to purchase 133,334 shares of our common stock; Mr. Misfeldt each held options to purchase 123,334 shares of our common stock; Drs. Pearce and Stump each held options to purchase 141,668 shares of our common stock; and Dr. Young held options to purchase 187,501 shares of our common stock.

(4) In 2014, Mr. Misfeldt's director compensation was paid to Bay City Capital LLC, manager of the general partner to Bay City Capital Fund V, L.P. and Bay City Capital Fund V Co-Investment Fund, L.P., as described in the "Security Ownership of Certain Beneficial Owners and Management" section of this proxy statement.

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, 2015. Biographical information with regard to Mr. Swisher is presented under "*Class III Directors Continuing in Office Until the 2017 Annual Meeting*" in this proxy statement.

Name	Age	Position
Daniel N. Swisher, Jr.	51	CEO, President and Director
Eric H. Bjerkholt	55	Executive Vice President, Corporate Development and Finance and Chief Financial Officer
Adam R. Craig, Ph.D.	49	Executive Vice President, Development and Chief Medical Officer

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 served as our Senior Vice President, Corporate Development and Finance and Chief Financial Officer from February 2007 to January 2012, at which time he was promoted to Executive Vice President, Corporate Development and Finance and Chief Financial Officer. 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, Ambrx, Inc., a biopharmaceutical company and Corium International, Inc. Mr. Bjerkholt holds a Cand. Oecon degree in Economics from the University of Oslo and an M.B.A. from Harvard Business School.

Adam R. Craig, Ph.D. has served as our Executive Vice President, Development and Chief Medical Officer since March 2012. From September 2007 until December 2011, Dr. Craig served as Chief Medical Officer of ChemGenex Pharmaceuticals Ltd., a biotechnology company focused on the development of novel therapeutic agents for the treatment of cancer, and in similar roles following the acquisition of ChemGenex by Cephalon, Inc. in July 2011, and the acquisition of Cephalon, Inc. by Teva Pharmaceutical Industries Ltd. in October 2011. From December 2011 until joining the Company, Dr. Craig served as a consultant to Teva Pharmaceutical Industries Ltd. Before joining ChemGenex, he was founding Chief Medical Officer at Innovive Pharmaceuticals, Inc., a hematology-focused company. Prior to joining Innovive, Dr. Craig held positions of increasing responsibility at ArQule Inc., Ilex Oncology Inc., and Antisoma plc. Dr. Craig received his medical qualifications from London University, a Ph.D. in molecular medicine from the University of Leeds, and an M.B.A. from the Open Business School in the United Kingdom. Dr. Craig is a member of the Royal College of Pediatrics and Child Health Physicians (UK) and undertook post-graduate training in pediatrics and pediatric oncology. He also currently serves as a member of the Commercialization Review Council for the Cancer Prevention Research Institute of Texas, a fund for cancer research and prevention programs and services.

EXECUTIVE COMPENSATION AND RELATED INFORMATION

Compensation Discussion and Analysis

Background

This Compensation Discussion and Analysis explains our compensation philosophy, policies and practices for the following executives, who are referred to in this Compensation Discussion and Analysis and in the following tables as our "named executive officers" for the year ended December 31, 2014:

- Daniel N. Swisher, Jr., Chief Executive Officer and President;
- Eric H. Bjerkholt, Executive Vice President, Corporate Development and Finance, Chief Financial Officer and Corporate Secretary; and
- Adam R. Craig, Ph.D., Executive Vice President, Development and Chief Medical Officer.

Executive Summary

Our executive compensation program is designed to attract, reward and retain a talented, innovative and entrepreneurial team of executives. To do so, we believe that the majority of the target compensation of our named executive officers should be based on performance, both of the individual and of the business. We structure our variable compensation programs to recognize both short-term and long-term contributions given the importance of both near-term milestones and longer-term development cycles in our industry.

Response to 2014 Say-on-Pay Vote. At our annual meeting of stockholders in 2014, we conducted our second advisory vote on the compensation of our named executive officers. We believe that it is important for our stockholders to have an opportunity to vote on this proposal annually, which is consistent with the frequency preferred by our stockholders. Our Board and Compensation Committee value the opinions of our stockholders. At our Annual Meeting, we will conduct our third say-on-pay vote. We are committed to ongoing engagement with our stockholders on executive compensation and corporate governance issues.

At our annual meeting of stockholders in 2014, approximately 99.6% of the votes cast on the say-on-pay proposal supported the proposal. While this vote is advisory only, our Compensation Committee has considered the results of the vote in the context of our overall compensation philosophy, policies and decisions. In addition, at our annual meeting of stockholders in 2013, approximately 99.6% of the votes cast on the say-on-pay proposal supported the proposal. Our Compensation Committee believes that the 2014 stockholder vote strongly endorsed our compensation philosophy and the decisions we made for 2013. Our compensation philosophy and the decisions made in 2014 were consistent with the decisions made in 2013.

Important Features of our Executive Compensation Program. The important features of our executive compensation program include:

- Our executive compensation is weighted toward performance-based compensation in the form of (i) an incentive cash bonus opportunity that is based on achievement of strategic, operational and financial goals selected annually by our Compensation Committee, and (ii) an equity compensation opportunity in the form of stock options that provide incentives for our executives to meet certain performance goals and increase the market value of our common stock over time.
- The cash severance benefits that we offer to our executives do not exceed one times base salary.
- We do not provide any tax gross ups, including under Sections 409A or 4999 of the Code to our named executive officers.

- We do not provide any defined benefit pension plans or supplemental employee retirement plans to any of our employees.

- A portion of a bonus paid to any of our named executive officers may be paid in shares of fully-vested common stock to both minimize the associated cash expense and align the named executive officer's incentives with our stockholders.

- Our insider trading policy prohibits our employees, including our named executive officers, directors and consultants, from hedging the economic interest in the Sunesis shares they hold.

- Our Compensation Committee has retained an independent third-party consultant for guidance in making compensation decisions.

- Our Compensation Committee reviews market practices and makes internal comparisons among our named executive officers when making compensation decisions.

- We structure our executive compensation programs with the intent of minimizing the risk of inappropriate risk-taking by our executives.

Objectives of Our Compensation Philosophy

We design our executive compensation philosophy to:

- provide a competitive compensation package to attract, motivate and retain talented and experienced individuals to manage and operate all aspects of our business with the requisite skills for success;

- motivate our executives to achieve corporate and individual objectives that promote the growth of our business and move forward our product portfolio, as measured by objective goals;

- align the interests of our executive officers with those of our stockholders; and

- create a link between our performance and individual/team performance and compensation.

To meet these objectives, we provide base salary, performance-based annual cash incentives, long-term equity incentive awards, broad-based employee benefits with limited perquisites and responsible severance benefits. Our Compensation Committee does not have formal policies for allocating compensation between long-term and currently paid-out compensation, between cash and non-cash compensation, or among different forms of cash compensation and non-cash compensation, but rather, the Compensation Committee makes determinations regarding the allocation of compensation based on the best interests of Sunesis with the goal of encouraging and rewarding performance.

Role of the Compensation Committee

Our Compensation Committee is generally responsible for reviewing, modifying, approving and otherwise overseeing the compensation policies and practices applicable to all of our employees, including the administration of our equity plans and employee benefit plans. As part of this responsibility, the Compensation Committee establishes, reviews and modifies the compensation structure for our CEO and other named executive officers. However, the Compensation Committee may, at its discretion and in accordance with the philosophy of making all information available to our Board, present executive compensation matters to the entire Board for its review and approval.

As part of its deliberations, in any given year, the Compensation Committee may review and consider materials such as our financial reports and projections, operational data, tax and accounting information that set forth the total compensation that may become payable to executives in various hypothetical scenarios, executive and director stock ownership information, our stock performance data, analyses of historical executive compensation levels and current Company-wide compensation levels, and the recommendations of our CEO (for named executive officers other than himself) and the Compensation Committee's independent compensation consultant.

Role of Management

Our Compensation Committee solicits and considers the performance evaluations and compensation recommendations for our named executive officers submitted by our CEO. However, our Compensation Committee retains the final authority to make all compensation decisions. None of our named executive officers, including the CEO, participated directly in the final determinations that were made by the Compensation Committee regarding the amount of any component of their own 2014 compensation package.

The Compensation Committee has worked with an independent compensation consultant to design and develop recommended compensation programs for our named executive officers and other senior management, to recommend changes to existing compensation programs, to recommend financial and other performance targets to be achieved under those programs, to prepare analyses of financial data, to prepare peer data comparisons and other briefing materials, and ultimately to implement the decisions of the Compensation Committee.

Use of Compensation Consultant

The Compensation Committee has the authority to hire and terminate its compensation consultant. Sunesis pays the cost for the consultant's services.

The Compensation Committee assesses the performance and independence of its consultants and of each individual employee of the consulting firm who directly provides services to Sunesis. Since 2010, the Compensation Committee has retained Radford, an Aon Hewitt Company, or Radford, as their independent compensation consultants. The Compensation Committee selected Radford for their expertise in the life sciences industry and recommendations of certain members of our Board who are affiliated with other clients of Radford. The total fees paid to Radford for compensation consulting services during 2014 did not exceed 1% of Aon Hewitt Company's revenue. Before engaging Radford, the Compensation Committee requested information from Radford about potential conflicts of interest, and in particular, considered the fact that Radford provides no other services to Sunesis, that the individual representative of Radford who works directly with the Compensation Committee has no other business relationships with the Board, management or Sunesis, and Radford's own policies on ethics and conflicts of interest. As a result, the Compensation Committee concluded that there were no actual conflicts of interest with respect to Radford providing services to the Compensation Committee.

After taking into consideration the six factors prescribed by the SEC and NASDAQ as described above, our Compensation Committee decided to continue its engagement of Radford as its independent compensation consultant for our 2014 compensation decisions.

In connection with our 2014 compensation decisions, Radford provided the Compensation Committee with the following services:

- advised on the design and structure of our cash and equity incentive compensation program;
- reviewed our compensation philosophy;
- updated the Compensation Committee on emerging trends and best practices in the area of executive compensation;

- reviewed and provided recommendations on the composition of our 2014 peer group of companies;
- provided compensation data for similarly situated executive officers at our peer group; and
- reviewed the compensation arrangements for all of our named executive officers, including the design and structure of our annual cash incentive bonus plan and equity-based incentive compensation program.

Radford attended meetings of the Compensation Committee at the request of the Compensation Committee. The Chairman of the Compensation Committee also communicated separately with Radford. Radford did not provide any services directly to management or to Sunesis. If and as requested by the Compensation Committee, Radford gathers information from management necessary to perform its duties to the Compensation Committee.

In the second half of 2013, in connection with our compensation decisions for 2014 service, Radford conducted a high-level assessment of Sunesis' cash and equity compensation versus the market using a custom cut of their survey data for Sunesis' peer companies. The Compensation Committee retained Radford again in November 2014 to assist with our compensation decisions for 2015 service.

Use of Peer Data

The Compensation Committee engages Radford to review and assess the appropriateness, and provide recommendations on, the composition of a current peer group of companies and, after the Compensation Committee approved a final list of peers, to provide compensation data for similarly situated executive officers at this peer group. The Compensation Committee selected public companies: (i) in the biopharmaceuticals industry, (ii) at similar stages of clinical development, and (iii) with generally comparable market capitalization and number of employees. In selecting the final peer group, the Compensation Committee placed greater emphasis on business stage and market capitalization with Sunesis at the 44th percentile for market capitalization against the approved peer group. The stage of clinical development was considered a key factor to reflect the nature of the skills and experience required to perform the roles of our business leaders. Prior to making compensation decisions for 2014, the Compensation Committee reviewed the executive compensation environment relevant to Sunesis, including market trends in the amount and type of compensation paid to executives. Based on this review, which occurred in the second half of 2013, the Compensation Committee determined that the peer companies selected for use in the 2013 compensation decisions were still applicable for 2014 compensation decisions, and recommended no changes to the peer group. Although Astex Pharmaceuticals, Inc. and Trius Therapeutics, Inc. were both acquired in 2013, Radford included these companies in the analysis because their executive pay data remained current and relevant. The resulting 2014 peer group examined and approved consisted of the following companies:

ACADIA Pharmaceuticals Inc.	Curis, Inc.	Rigel Pharmaceuticals, Inc.
Amicus Therapeutics, Inc.	Cytokinetics, Incorporated	Sangamo Biosciences, Inc.
ArQule, Inc.	Dynavax Technologies Corporation	Synta Pharmaceuticals Corp.
Array Biopharma Inc.	Keryx Biopharmaceuticals, Inc	Threshold Pharmaceuticals, Inc.
Astex Pharmaceuticals, Inc.	Neurocrine Biosciences, Inc.	Trius Therapeutics, Inc.
AVEO Pharmaceuticals, Inc.	OncoGenex Pharmaceuticals, Inc.	XOMA Corporation
Clovis Oncology, Inc.	Oncothyreon Inc.	ZIOPHARM Oncology, Inc.

However, our Compensation Committee does not make decisions solely based on peer data. Our Compensation Committee refers to peer data to help ensure that target compensation amounts do not materially deviate from market practices (as reflected by the 25th percentile, median and 75th percentile of peer group data) and that target amounts provide fair compensation given our performance. In particular, the Compensation

Committee requested data from Radford at the 25th percentile, median and 75th percentile of the peer group for base salary, target cash bonus, actual cash bonus, aggregate equity award value, total target compensation and total actual compensation. In general, our philosophy was to pay base salaries and target cash compensation at the 50th percentile, while providing equity incentives at the 60th percentile. However, individual compensation decisions may deviate from the peer group data, as our Compensation Committee discussed the peer group data and made the 2014 compensation decisions in the context of:

- our executives' responsibilities and tenure, as title is not always determinative of the comparability of role from one organization to another;
- the experiences, knowledge and business judgment of each of our executives;
- the desire to maintain target pay opportunities and allocations between cash and equity at levels that were consistent with historical pay levels for each of our executives, given the positive response to our past say-on-pay proposal; and
- corporate and individual performance, which includes setting target compensation opportunities after taking into account, in a subjective fashion, performance in the prior year, as well as the anticipated demands on the executive in the coming year.

Reasons for Providing, and Manner of Structuring, the Key Compensation Elements in 2014

Base Salary

We provide base salary as a fixed source of compensation for our executives for the services they provide to us during the year and to balance the impact of having a significant portion of their compensation "at risk" in the form of annual cash incentive bonuses and equity-based incentive compensation. Our Compensation Committee recognizes the importance of a competitive base salary as an element of compensation that helps to attract and retain our executive officers.

In February 2014, the Compensation Committee reviewed the base salaries for our executive officers. The Compensation Committee considered each officer's 2013 base salary level and the scope of each executive's responsibilities for 2014. The Compensation Committee also considered the recommendations of our CEO for base salary increases for officers other than himself. The Compensation Committee set the 2014 base salaries of each of the named executive officers as follows:

Name	2013 Base Salary ($)	2014 Base Salary ($)	Percent Increase
Daniel N. Swisher, Jr.	475,000	490,000	3.2%
Eric H. Bjerkholt	380,000	391,500	3.0%
Adam R. Craig, Ph.D.	410,000	422,500	3.0%

The Compensation Committee believed it was appropriate to maintain salary levels competitive with the peer group in order to attract and retain the quality of talent who can perform multiple roles in our lean management team, that we need to successfully grow, achieve our challenging objectives, and differentiate ourselves from those companies against which we compete for talent.

Annual Cash Incentive Bonus Program

2014 Bonus Program. In March 2014, the Board, upon the recommendation of the Compensation Committee, approved our 2014 Bonus Program and allowed for the granting of performance-based compensation opportunities. Our 2014 Bonus Program provided compensation opportunities to our named executive officers

based on a combination of (a) the achievement of pre-established corporate performance goals derived from our Board-approved operating plan for 2014 and (b) the individual performance of the named executive officer.

Target Bonus Levels. In March 2014, the Board, upon the recommendation of the Compensation Committee, approved a target incentive bonus award for each executive. These levels were consistent with our philosophy that a significant portion of each executive's total target cash compensation should be performance-based, and reflect the Compensation Committee's review of internal pay equity. The respective target amounts for 2014 for our named executive officers were:

Name	Percent of 2014 Base Salary
Daniel N. Swisher, Jr.	55.0%
Eric H. Bjerkholt	40.0%
Adam R. Craig, Ph.D.	40.0%

2014 Bonus Program Structure and Metrics. In March 2014, the Compensation Committee determined that for participants to earn any bonus in 2014 under our 2014 Bonus Program, Sunesis must achieve certain corporate objectives. The Compensation Committee, after considering analyses and recommendations from management, would determine the degree to which the Sunesis corporate objectives had been met. If we did not achieve any of our corporate objectives, the participants in our 2014 Bonus Program would earn no annual incentive bonus under the plan. If we did achieve our corporate objectives, then our named executive officers have the opportunity to earn a bonus partially based on corporate performance and partially based on individual performance. To be eligible for a bonus for 2014, the employee must have remained employed by us through the date the bonus was paid.

For 2014, the corporate performance factor was composed of financial, business, clinical trial and other corporate milestones and goals. The Compensation Committee determines the level of achievement, if any, based on the sum of the achievement levels of the following corporate objectives:

- forty percent (40%) based on certain clinical trial program milestones, including, among other things, unblinding of the VALOR trial;
- forty percent (40%) based on certain financial, organizational, commercial readiness and business achievements and metrics; and
- twenty percent (20%) based on other corporate achievements.

Although achievement of our corporate objectives involved future performance and, therefore, was subject to uncertainty at the time the objectives were set, the Compensation Committee believes it established target objectives that were value-creating and achievable with an appropriate amount of dedication and hard work and, therefore, it was more likely than not that each executive officer would earn a bonus under the annual incentive bonus award program, consistent with our compensation philosophy. At the time the Compensation Committee set our goals for 2014, the Compensation Committee believed that the 2014 Bonus Program goals were achievable yet had the appropriate stretch to motivate employees to excel.

2014 Performance and Bonus Payouts. In February 2015, the Compensation Committee determined that the corporate objectives were 75% achieved overall. The 2014 achievements considered by our Compensation Committee in assessing the level of achievement included, among other factors:

- top-line results from the VALOR trial;
- development of a U.S. and European regulatory filing strategy and a U.S. commercialization plan;

- strengthened financial resources and continued institutional investor support; and
- development of additional product pipeline candidates.

In January 2015, our CEO shared his evaluations of the individual performance of each of our other named executive officers with the Compensation Committee. In determining the individual performance percentage for each named executive officer, the Compensation Committee considered the respective level of contribution by our named executive officers toward our achievement of our corporate objectives, resulting in the following assessments:

- Daniel N. Swisher, Jr.: The Compensation Committee determined an individual performance percentage of one hundred percent (100%) for 2014 based on his leadership role in contributing to our strong corporate results.
- Eric H. Bjerkholt: The Compensation Committee determined an individual performance percentage of one hundred percent (100%) for 2014 based on his role in financial strategy and oversight, development of institutional investor support, and oversight of corporate planning.
- Adam R. Craig, Ph.D.: The Compensation Committee determined an individual performance percentage of one hundred percent (100%) for 2014 based on his role in the execution and readout of the VALOR trial, including other key development and regulatory activities.

As a result, the named executive officers earned the following bonus amounts for 2014:

Name	Target Bonus Level ($)	Corporate Performance (%)	Individual Performance (%)	Cash Bonus Amount ($)	Stock Award Amount ($)	Actual Bonus Earned ($)(1)
Daniel N. Swisher, Jr.	269,500	75%	100%	134,667	67,333	202,000
Eric H. Bjerkholt	156,600	75%	100%	78,333	39,167	117,500
Adam R. Craig, Ph.D.	169,000	75%	100%	84,500	42,250	126,750

(1) In order to align our executive officers' incentives with those of our stockholders, one-third of the 2014 bonus consisted of fully vested shares of our common stock under our 2011 Plan. The number of shares subject to the award equaled the target grant value divided by the closing price of our common stock on the date of grant.

Equity-Based Incentive Compensation

The Compensation Committee believes that properly structured equity compensation works to align the long-term interests of stockholders and employees by creating a strong, direct link between employee compensation and stock price appreciation. We have historically awarded equity in the form of options, which have an exercise price equal to the fair market value of a share of our common stock on the date of grant, and vest based on continued service over a specified period (typically, four years). As a result of the way we structure our option awards, options provide a return to the executive only if such officer remains employed by us, and then only if the market price of our common stock appreciates over the term of the option, which creates alignment with our stockholders.

Equity-based awards granted to our named executive officers in 2014 were granted under our 2011 Plan. The Compensation Committee determined an aggregate target award size for each executive, after considering the overall equity holdings of similar executives at peer group companies and the recommendations of our CEO. The Compensation Committee decided to allocate the target value in the form of stock options subject to a four-year vesting schedule.

Stock Option Grants in 2014. In February 2014, the Compensation Committee approved the grant of a new stock option to all employees, including each of our executive officers, effective February 28, 2014, that would be subject to vesting based on continued service over four years in equal monthly installments. Each option has an exercise price equal to the fair market value of a share of our common stock on the date of grant. The option grants to our executive officers on this date were as follows:

Name(1)	Number of Shares
Daniel N. Swisher, Jr.	300,000
Eric H. Bjerkholt	125,000
Adam R. Craig, Ph.D.	140,000

In October 2014, the Compensation Committee approved the grant of a new stock option to all employees, including each of our executive officers, effective October 31, 2014, that would be subject to vesting based on continued service over four years in equal monthly installments. The October 2014 grants to our employees, including our executive officers, were in addition to the February 2014 grants. Typically the Compensation Committee considers annual refresh grants in the first quarter of each year, however, the Compensation Committee decided to move consideration and approval of the option grants forward to further enhance retention incentive following the reporting of top line results from the VALOR trial. Each option has an exercise price equal to the fair market value of a share of our common stock on the date of grant. The option grants to our executive officers on this date were as follows:

Name	Number of Shares
Daniel N. Swisher, Jr.	300,000
Eric H. Bjerkholt	140,000
Adam R. Craig, Ph.D.	140,000

CEO Compensation Relative to Other Employees

Sunesis does not have a policy regarding the target ratio of total compensation of the CEO to that of the other executive officers or salaried personnel, but the Compensation Committee does review compensation levels to ensure that appropriate equity exists. The CEO participates in the same compensation programs and receives a mix of compensation based on the same philosophy and factors as the other named executive officers. Application of the same philosophy and factors to the CEO's position results in overall compensation that is greater than the compensation of the other named executive officers. The CEO's compensation is commensurate with greater responsibilities and decision-making authority, broader scope of duties encompassing the entirety of the Company, when compared to the other named executive officers who are responsible for significant but distinct areas within Sunesis, and overall responsibility for corporate strategy. The 2014 base salary of the CEO was approximately 1.2 times the base salary of the next highest paid executive officer. The 2014 total direct compensation for our CEO, which comprises base salary and target bonus, was approximately 1.3 times the direct compensation of the next highest paid executive officer.

Equity Compensation Policies

We have a policy that prohibits our executive officers, directors and other members of management from engaging in short sales, transactions in put or call options, hedging transactions or other inherently speculative transactions with respect to our stock.

Employee Benefits

We provide broad based medical insurance, dental insurance, vision coverage, life insurance and accidental death and dismemberment insurance benefits to our employees, including our named executive officers. We also provide our employees, including our named executive officers, with the opportunity to

participate in our 401(k) plan. Eligible employees may contribute up to sixty percent (60%) of their cash compensation up to the current Internal Revenue Service limits in each calendar year, and we may match on a dollar-for-dollar basis up to $2,500 of these contributions in each year. We believe these insurance and retirement savings benefits are consistent with market practice and help to recruit and retain key talent at a minimal cost to us.

Our executive officers generally do not receive any supplemental retirement benefits or perquisites, except for limited perquisites provided on a case-by-case basis. In considering potential perquisites, the Compensation Committee compares the cost to the value of providing these benefits. We have historically provided only limited perquisites to our executive officers, with the policy that any perquisites provided serve legitimate business purposes, including allowing our executives to focus more time on our business. We have agreed to purchase and maintain a term life insurance policy for all employees, including each of our named executive officers currently in the face amounts of two times each named executive officer's base salary, up to $400,000 each, plus an additional insurance policy of $50,000 each, which we also offer to all other employees. The Compensation Committee decided that rather than pay each named executive officer this amount as severance upon death from our general assets, it is more cost effective to provide for these payments through insurance.

Deductibility of Executive Compensation; Code Section 162(m)

Section 162(m) of the Code limits the amount that a public company may deduct from federal income taxes for remuneration paid to the chief executive officer and the three other most highly paid executive officers, other than the chief financial officer, to $1.0 million per executive per year, unless certain requirements are met. While our Compensation Committee is mindful of the benefit to us of the full deductibility of compensation, our Compensation Committee believes that it should not be constrained by the requirements of Section 162(m) where those requirements would impair flexibility in compensating our executive officers in a manner that can best promote our corporate objectives. We intend to continue to compensate our executive officers in a manner consistent with the best interests of Sunesis and our stockholders.

Accounting Considerations

The accounting impact of our executive compensation program is one of many factors that the Compensation Committee considers in determining the size and structure of that program.

Compensation Recovery Policy

Amounts paid and awards granted under our 2014 Bonus Program and our 2011 Plan, and participation in our 2011 Employee Stock Purchase Plan, are subject to recoupment in accordance with the Dodd-Frank Wall Street Reform and Consumer Protection Act and any applicable regulations, and any clawback policy Sunesis adopts or as is required by applicable law. In addition, as a public company subject to the provisions of Section 304 of the Sarbanes-Oxley Act of 2002, if we are required as a result of misconduct to restate our financial results due to our material noncompliance with any financial reporting requirements under the federal securities laws, our chief executive officer and chief financial officer may be legally required to reimburse us for any bonus or other incentive-based or equity-based compensation they receive. In addition, we will comply with the requirements of the Dodd-Frank Wall Street Reform and Consumer Protection Act once final regulations on the subject have been adopted.

Risk Analysis of Our Compensation Plans

The Compensation Committee has reviewed and considered our compensation policies as generally applicable to our employees and believes that our policies do not encourage excessive or unnecessary risk-taking, and that the level of risk that they do encourage is not reasonably likely to have a material adverse effect on

Sunesis. We design our compensation policies and programs to encourage our employees to remain focused on both our short and long-term goals. For example, while our cash bonus plans measure performance on an annual basis, our equity awards typically vest over a number of years, which we believe encourages our employees to focus on sustained stock price appreciation, thus limiting the potential value of excessive risk-taking.

Compensation Committee Report (1)

The Compensation Committee oversees the compensation programs of Sunesis on behalf of the Board. In fulfilling its oversight responsibilities, the Compensation Committee reviewed and discussed with management the Compensation Discussion and Analysis included in this proxy statement.

In reliance on the review and discussions referred to above, the Compensation Committee recommended to the Board of Directors that the Compensation Discussion and Analysis be included in the Annual Report on Form 10-K for the year ended December 31, 2014 and in this proxy statement.

Dayton Misfeldt, *Chairman*
Steve R. Carchedi
Matthew K. Fust

(1) 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.

Summary Compensation Table

The following table sets forth information regarding the compensation for services performed during the years ended December 31, 2014, 2013, and 2012 awarded to, paid to or earned by (i) our CEO, (ii) our Chief Financial Officer, and (iii) our next most highly compensated executive officer, as determined by reference to total compensation for the year ended December 31, 2014. Such individuals are referred to as our "named executive officers," or NEOs, for the year ended December 31, 2014. 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 ($)(2)	Non-Equity Incentive Plan Compensation ($)	All Other Compensation ($)	Total ($)
Daniel N. Swisher, Jr.	2014	$488,094	$—	$1,736,160	$202,000(3)(4)	$3,466(5)	$2,429,720
CEO and President	2013	469,875	—	1,157,850	261,250(6)(7)	3,466(5)	1,892,441
	2012	431,894	—	522,198	217,000(8)(9)	3,130(10)	1,174,222
Eric H. Bjerkholt	2014	390,062	—	741,762	117,500(3)(11)	4,306(12)	1,253,630
Executive Vice President,	2013	378,750	—	385,950	152,000(6)	3,466(5)	920,166
Corporate Development and Finance, Chief Financial Officer and Corporate Secretary	2012	367,500	—	153,588	148,000(8)(13)	3,466(5)	672,554
Adam Craig, Ph.D.	2014	420,938	—	810,208	126,750(3)(14)	3,130(10)	1,361,026
Executive Vice President,	2013	408,750	—	482,438	164,000(6)	3,130(10)	1,058,318
Development and Chief Medical Officer	2012	338,333	—	737,220	160,000(8)(15)	3,025(16)	1,238,578

(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 for the respective fiscal year. 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 11, *Stock-Based Compensation*, of the Notes to Consolidated Financial Statements in our Annual Report on Form 10-K for the year ended December 31, 2014, which identifies assumptions made in the valuation of option awards in accordance with FASB ASC Topic 718.

(3) Represents amounts earned under the 2014 Bonus Program for performance from January 1, 2014 through December 31, 2014. Amounts earned under the 2014 Bonus Program were paid out on March 13, 2015. See "*Narrative to Summary Compensation Table—2014 Bonus Program.*"

(4) $67,333 of which was paid in the form of 30,330 fully vested shares our common stock based on the closing price of $2.22 of our common stock on The NASDAQ Capital Market on February 27, 2015.

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

(6) Represents amounts earned under the 2013 Bonus Program for performance from January 1, 2013 through December 31, 2013. Amounts earned under the 2013 Bonus Program were paid out on February 28, 2014. See "*Narrative to Summary Compensation Table—2013 Bonus Program*."

(7) $65,313 of which was paid in the form of 9,971 fully vested shares of our common stock based on the closing price of $6.55 of our common stock on The NASDAQ Stock Market on February 28, 2014.

(8) Represents amounts earned under the 2012 Bonus Program for performance from January 1, 2012 through December 31, 2012. Amounts earned under the 2012 Bonus Program were paid out on February 28, 2013. See "*Narrative to Summary Compensation Table—2012 Bonus Program*."

(9) $108,500 of which was paid in the form of 20,785 fully vested shares of our common stock based on the closing price of $5.22 of our common stock on The NASDAQ Stock Market on February 28, 2013.

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

(11) $39,167 of which was paid in the form of 17,642 fully vested shares our common stock based on the closing price of $2.22 of our common stock on The NASDAQ Capital Market on February 27, 2015.

(12) Consists of $1,806 in group life insurance premiums and $2,500 in matching 401(k) contributions.

(13) $37,000 of which was paid in the form of 7,088 fully vested shares of our common stock based on the closing price of $5.22 of our common stock on The NASDAQ Stock Market on February 28, 2013.

(14) $42,250 of which was paid in the form of 19,031 fully vested shares our common stock based on the closing price of $2.22 of our common stock on The NASDAQ Capital Market on February 27, 2015.

(15) $40,000 of which was paid in the form of 7,662 fully vested shares of our common stock based on the closing price of $5.22 of our common stock on The NASDAQ Stock Market on February 28, 2013.

(16) Consists of $525 in group life insurance premiums and $2,500 in matching 401(k) contributions.

Narrative to Summary Compensation Table

2012 Bonus Program

In March 2012, our Board approved the 2012 Bonus Program, which provided our executive officers and other eligible employees the opportunity to earn cash bonuses based on the level of achievement from January 1, 2012 through December 31, 2012 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 2012 Bonus Program to have earned a 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 2012 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 2012, or the 2012 Bonus Targets. Under the 2012 Bonus Program, the 2012 Bonus Targets ranged from 30.0% to 50.0% of a participant's 2012 base salary for Vice President level employees and above. The 2012 Bonus Target and bonus target amount for each of our NEOs was as follows:

Named Executive Officer	Bonus Target Percentage	Bonus Target Amount
Daniel N. Swisher, Jr.	50.0%	$217,000
Eric H. Bjerkholt	40.0	148,000
Adam R. Craig, Ph.D.	40.0	160,000

In February 2013, the Compensation Committee approved the payment of bonuses to certain of our employees, including our NEOs, pursuant to the 2012 Bonus Program. The bonus payment amounts approved by the Board and Compensation Committee were based on their respective determinations 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 2011 Plan. The number of shares of our common stock awarded to each of our NEOs were determined based on the closing price of our common stock as quoted on The NASDAQ Stock Market on February 28, 2013, rounded down to the nearest whole share. The portions of the bonus payment amounts paid in cash and shares of our common stock for the year ended December 31, 2012 are reflected in the "Non-Equity Incentive Plan Compensation" column of the "*Summary Compensation Table*."

2013 Bonus Program

In March 2013, our Board approved the 2013 Bonus Program, which provided our executive officers and other eligible employees the opportunity to earn bonuses based on the level of achievement from January 1, 2013 through December 31, 2013 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 2013 Bonus Program to have earned a 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 2013 Bonus Program was eligible to receive a bonus in an amount up to a specified percentage of such participant's annual base salary earned in 2013, or the 2013 Bonus Targets. Under the 2013 Bonus Program, the 2013 Bonus Targets ranged from 30.0% to 55.0% of a participant's 2013 base salary for Vice President level employees and above. The 2013 Bonus Target and bonus target amount for each of our NEOs was as follows:

Named Executive Officer	Bonus Target Percentage	Bonus Target Amount
Daniel N. Swisher, Jr.	55.0%	$261,250
Eric H. Bjerkholt	40.0	152,000
Adam R. Craig, Ph.D.	40.0	164,000

In February 2014, the Compensation Committee approved the payment of bonuses to certain of our employees, including our NEOs, pursuant to the 2013 Bonus Program. The bonus payment amounts approved by the Board and Compensation Committee were based on their respective determinations of the degree to which such corporate and individual objectives were achieved.

A portion of the bonus awarded to our CEO consisted of fully vested shares of our common stock granted under our 2011 Plan. The number of shares of our common stock awarded to our CEO was determined based on the closing price of our common stock as quoted on The NASDAQ Stock Market on February 28, 2014, rounded down to the nearest whole share. The portion of the bonus payment amount paid to our CEO in cash and shares of our common stock for the year ended December 31, 2013 is reflected in the "Non-Equity Incentive Plan Compensation" column of the "*Summary Compensation Table*."

2014 Bonus Program

In March 2014, our Board approved the 2014 Bonus Program, which provided our executive officers and other eligible employees the opportunity to earn bonuses based on the level of achievement from January 1, 2014 through December 31, 2014 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 2014 Bonus Program to have earned a 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 2014 Bonus Program was eligible to receive a bonus in an amount up to a specified percentage of such participant's annual base salary earned in 2014, or the 2014 Bonus Targets. Under the 2014 Bonus Program, the 2014 Bonus Targets ranged from 30.0% to 55.0% of a participant's 2014 base salary for Vice President level employees and above. The 2014 Bonus Target and bonus target amount for each of our NEOs was as follows:

Named Executive Officer	Bonus Target Percentage	Bonus Target Amount
Daniel N. Swisher, Jr.	55.0%	$269,500
Eric H. Bjerkholt	40.0	156,600
Adam R. Craig, Ph.D.	40.0	169,000

In February 2015, the Compensation Committee approved the payment of bonuses to certain of our employees, including our NEOs, pursuant to the 2014 Bonus Program. The bonus payment amounts approved by the Board and Compensation Committee were based on their respective determinations of the degree to which such corporate and individual objectives were achieved.

A portion of the bonus awarded to our NEOs consisted of fully vested shares of our common stock granted under our 2011 Plan. The number of shares of our common stock awarded to our NEOs was determined based on the closing price of our common stock as quoted on The NASDAQ Stock Market on February 27, 2015, rounded down to the nearest whole share. The portion of the bonus payment amount paid to our NEOs in cash and shares of our common stock for the year ended December 31, 2014 is reflected in the "Non-Equity Incentive Plan Compensation" column of the "*Summary Compensation Table*."

Stock Option Grants in 2014

See "*Outstanding Equity Awards Table at December 31, 2014*" below for the terms of the stock options held by our NEOs as of December 31, 2014, including the stock options granted to our NEOs in 2014.

Outstanding Equity Awards Table at December 31, 2014

The following information sets forth the outstanding stock options held by our NEOs as of December 31, 2014. As of December 31, 2014, 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.	39,167	—	31.50	11/29/15
CEO and President	20,000	—	29.10	10/13/16
	25,834	—	15.54	09/13/17
	110,000	—	2.94	08/31/19
	616,861	93,750(1)	2.09	06/30/21
	301,041	123,959(2)	1.74	02/28/22
	137,500	162,500(3)	5.22	02/28/23
	62,500	237,500(4)	6.55	02/28/24
	12,500	287,500(5)	1.70	10/31/24
Eric H. Bjerkholt	20,000	—	31.50	11/29/15
Executive Vice President, Corporate Development and	10,000	—	29.10	10/13/16
Finance, Chief Financial Officer and Corporate Secretary	15,000	—	15.54	09/13/17
	11,250	—	8.64	06/30/18
	75,000	—	2.94	08/31/19
	393,750	56,250(1)	2.09	06/30/21
	78,451	36,459(2)	1.74	02/28/22
	45,833	54,167(3)	5.22	02/28/23
	26,041	98,959(4)	6.55	02/28/24
	5,833	134,167(5)	1.70	10/31/24
Adam R. Craig, Ph.D.	425,000	175,000(6)	1.74	02/28/22
Executive Vice President, Development and Chief Medical	57,291	67,709(3)	5.22	02/28/23
Officer	29,166	110,834(4)	6.55	02/28/24
	5,833	134,167(5)	1.70	10/31/24

(1) This stock option was granted on June 30, 2011 pursuant to our 2011 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 February 29, 2012 pursuant to our 2011 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 February 28, 2013 pursuant to our 2011 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 February 28, 2014 pursuant to our 2011 Plan and vests monthly during the 48-month period measured from the grant date, subject to the holder's continued service with Sunesis.

(5) This stock option was granted on October 31, 2014 pursuant to our 2011 Plan and vests monthly during the 48-month period measured from the grant date, subject to the holder's continued service with Sunesis.

(6) This stock option was granted on February 29, 2012 pursuant to our 2011 Plan and vested as to 1/4th of the shares on February 28, 2013, with the remaining shares vesting monthly over the following 36 months, subject to the holder's continued service with Sunesis.

Option Exercises

The following table presents information concerning the aggregate number of shares for which options were exercised during the year ended December 31, 2014 for our NEOs. As of December 31, 2014, the NEOs did not have restricted stock awards.

Named Executive Officer	Number of Shares Acquired on Exercise	Value Realized on Exercise(1)
Daniel N. Swisher, Jr.	29,389	$90,279
Eric H. Bjerkholt	10,000	62,600
Adam R. Craig, Ph.D.	—	—

(1) Represents the difference between the aggregate market price of the common stock acquired on the date of exercise and the aggregate exercise price.

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. 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. Under the executive severance benefit agreement with Mr. Bjerkholt, if Mr. Bjerkholt is terminated without cause or is constructively terminated, he 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. Under Mr. Bjerkholt's executive severance benefits agreements, he will also be eligible for certain option acceleration benefits, as described in more detail below.

Dr. Craig. Under the executive severance benefit agreement with Dr. Craig, if Dr. Craig is terminated without cause or is constructively terminated, he 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. Under Dr. Craig's executive severance benefits agreements, he 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. Craig, 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, 2014, 2013 and 2012, Messrs. Swisher and Bjerkholt and Dr. Craig elected to defer a portion of their compensation under the 401(k) plan and, as a result, received corresponding matching contributions from us.

Change of Control Equity Incentive Plan Protections

Our 1998 Stock Plan, or 1998 Plan, and our 2001 Stock Plan, or 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 Equity Incentive Award Plan, or 2005 Plan, and 2006 Employment Commencement Incentive Plan, or 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 Sunesis, 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.

Our 2011 Plan provides that in the event of a change of control of Sunesis, 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.

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

Summary of Estimated Amounts Payable Upon a Termination or Change of Control

The table below estimates the amounts payable upon (a) a termination without cause or constructive termination, (b) a change of control, and (c) a termination without cause or constructive termination within 12 months following a change in control, each as of December 31, 2014 for our NEOs using $2.55, the closing price of the stock on that date.

Name	Acceleration of Vesting: Value of Equity Acceleration ($)(1)	Severance Payments ($)(2)	Health Benefits ($)(3)	Total ($)
Daniel N. Swisher, Jr.				
Termination without cause	—	490,000	24,900	514,900
Change of control	193,953	—	—	193,953
Termination without cause within 12 months of a change of control	387,907	490,000	24,900	902,807
Eric H. Bjerkholt				
Termination without cause	—	293,625	17,316	310,941
Change of control	84,724	—	—	84,724
Termination without cause within 12 months of a change of control	169,449	293,625	17,316	480,390
Adam R. Craig, Ph.D.				
Termination without cause	—	316,875	18,675	335,550
Change of control	127,896	—	—	127,896
Termination without cause within 12 months of a change of control	255,792	316,875	18,675	591,342

(1) In the event of a change of control, 50.0% of unvested equity awards will accelerate and become immediately and fully vested immediately prior to the change of control. In the event of a termination without cause or constructive termination, 100.0% of unvested equity awards will accelerate and become immediately and fully vested immediately prior to the change of control.

(2) In the event of a termination without cause, the amount represents nine months (twelve months in the case of Mr. Swisher) of the executive officer's base salary as of December 31, 2014. The amount indicated does not include the payment of any accrued salary or vacation that may be due upon termination of employment.

(3) Represents nine months (twelve months in the case of Mr. Swisher) of payments of premiums for continued health insurance coverage under COBRA, assuming in each case that the executive officer timely elects to receive the benefits. We would continue to pay such premiums for nine months (twelve months in the case of Mr. Swisher) unless the executive officer earlier (a) becomes eligible for substantially equivalent health insurance coverage in connection with new employment or self-employment or (b) loses eligibility for continuation coverage under COBRA.

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Principal Accountant Fees and Services

In connection with the audit of our 2014 financial statements, we entered into an engagement agreement with Ernst & Young, which sets forth the terms by which Ernst & Young will perform audit and interim services for us. We have agreed to waive a jury trial in proceedings arising out of this agreement under certain circumstances.

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, 2014 and 2013 for each of the following categories of professional services:

	Year Ended December 31,	
Fee Category	**2014**	**2013**
Audit fees(1)	$618,219	$505,000
Audit-related fees	—	—
Tax fees	—	—
All other fees	—	—
Total fees	$618,219	$505,000

(1) Audit fees for 2014 and 2013 included the aggregate fees for professional services rendered for: (a) the audit of our consolidated financial statements, (b) the review of our interim financial statements, (c) provision of an opinion on management's assessment of the effectiveness of our internal controls over financial reporting as required by Section 404 of the Sarbanes-Oxley Act of 2002, and (d) the provision of auditor comfort letters to Cantor Fitzgerald & Co. in relation to our controlled equity offering sales agreements with Cantor.

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 2014 or 2013 with our executive officers, directors and beneficial owners of five percent or more of our securities.

Related Person Transactions Policy and Procedure

It is our policy that any transaction with an executive officer, director, nominee for the election as a director, beneficial owner of more than 5% of any class of our common stock or any member of the immediate family of any of the foregoing persons, must first be presented to the Audit Committee for review, consideration and approval, to the extent required by SEC regulations. This policy is included in our Code of Business Conduct and Ethics.

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.

Registration Rights

In June 2013, we entered into an agreement with certain investors terminating the existing registration rights held by such investors and granting them replacement registration rights covering the common stock held by them. We have filed a registration statement under the Securities Act registering the resale of shares of our common stock held by these investors, including shares upon exercise of certain warrants.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth, as of March 15, 2015, 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 as of or within 60 days of March 15, 2015. Shares of common stock subject to stock options and warrants exercisable as of or within 60 days of March 15, 2015 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 68,218,284 shares of common stock outstanding as of March 15, 2015. 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:		
Growth Equity Opportunities Fund, LLC(3)	6,325,164	9.1%
Entities affiliated with Bay City Capital(4)	6,259,517	9.0%
T. Rowe Price Associates, Inc.(5)	5,670,000	8.3%
FMR LLC(6)	5,083,834	7.5%
Named Executive Officers and Directors:		
James W. Young, Ph.D.(7)	218,883	*
Daniel N. Swisher, Jr.(8)	1,836,593	2.6%
Eric H. Bjerkholt(9)	899,676	1.3%
Steve R. Carchedi(10)	35,833	*
Adam R. Craig, Ph.D.(11)	636,989	*
Matthew K. Fust(12)	130,001	*
Steven B. Ketchum, Ph.D.(13)	302,853	*
Helen S. Kim(14)	120,000	*
Dayton Misfeldt(15)	6,369,517	9.1%
Homer L. Pearce, Ph.D.(16)	128,334	*
David C. Stump, M.D.(17)	128,334	*
All executive officers and directors as a group (12 persons)	**10,807,013**	**14.6%**

* 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 and otherwise available.

(2) Includes shares issuable pursuant to stock options and warrants exercisable within 60 days of March 15, 2015.

(3) Consists of 4,659,333 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 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.

(4) Includes (i) 1,515 shares of our common stock held by Bay City Capital LLC, a Delaware limited liability company, or BCC, (ii) 4,506,300 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) 85,872 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, a member of our Board, 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) Consists of 5,670,000 shares of common stock owned by T. Rowe Price Associates, Inc., or T. Rowe Price. T. Rowe Price has sole voting power with respect to 804,600 shares of common stock and sole dispositive power with respect to 5,670,000 shares of common stock. These securities are owned by various individual and institutional investors which T. Rowe Price Associates, Inc. serves as an investment adviser with power to direct investments and/or sole power to vote the securities. For the purposes of the reporting requirements of the Securities Exchange Act of 1934, T. Rowe Price Associates, Inc. is deemed to be a beneficial owner of such securities; however, T. Rowe Price Associates, Inc. expressly disclaims that it is, in fact, the beneficial owner of such securities. The principal address for T. Rowe Price is 100 E. Pratt Street, Baltimore, Maryland 21202.

(6) Consists of shares beneficially owned by investment advisors that are direct or indirect subsidiaries of FMR LLC, including 4,253,594 shares of common stock owned by Select Biotechnology Portfolio, or Select. The address of FMR LLC and Select is 245 Summer Street, Boston, Massachusetts 02210.

(7) Includes 3,920 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 174,167 shares of common stock that are exercisable within 60 days of March 15, 2015.

(8) Includes options held by Mr. Swisher to purchase 1,498,318 shares of our common stock that are exercisable within 60 days of March 15, 2015. Also includes 129,136 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.

(9) Includes options held by Mr. Bjerkholt to purchase 759,578 shares of our common stock exercisable within 60 days of March 15, 2015. Also includes 73,529 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.

(10) Consists of options held by Mr. Carchedi to purchase 35,833 shares of our common stock exercisable within 60 days of March 15, 2015.

(11) Includes options held by Dr. Craig to purchase 613,537 shares of our common stock exercisable within 60 days of March 15, 2015.

(12) Consists of options held by Mr. Fust to purchase 130,001 shares of our common stock exercisable within 60 days of March 15, 2015.

(13) Includes options held by Dr. Ketchum to purchase 212,236 shares of our common stock exercisable within 60 days of March 15, 2015. Also includes 16,656 shares of common stock issuable upon the exercise of warrants outstanding.

(14) Consists of options held by Ms. Kim to purchase 120,000 shares of our common stock exercisable within 60 days of March 15, 2015.

(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 110,000 shares of our common stock exercisable within 60 days of March 15, 2015. The address for Mr. Misfeldt is c/o Bay City Capital, 750 Battery Street, Suite 400, San Francisco, California 94111.

(16) Consists of options held by Dr. Pearce to purchase 128,334 shares of our common stock exercisable within 60 days of March 15, 2015.

(17) Consists of options held by Dr. Stump to purchase 128,334 shares of our common stock exercisable within 60 days of March 15, 2015.

OTHER INFORMATION

Stockholder Proposals for Inclusion in our 2016 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 2016 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 25, 2015. However, if our 2016 annual meeting of stockholders is not held between May 5, 2016 and July 4, 2016, 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 2016 annual meeting, such a proposal must be received by us on or before December 25, 2015. If the date of the annual meeting is before May 9, 2016 or after July 8, 2016, 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 2016 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 materials with respect to two or more stockholders sharing the same address by delivering a single set of other proxy materials 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 set of proxy materials will 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 set of proxy materials in the future, you please notify your broker or write or call either (i) our Investor Relations Department at Sunesis Pharmaceuticals, Inc., 395 Oyster Point Boulevard, Suite 400, South San Francisco, California 94080, Attention: Eric H. Bjerkholt, Executive 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, 6201 15th Avenue, Brooklyn, New York 11219, 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.

INCORPORATION BY REFERENCE

The information required with respect to securities authorized for issuance under our equity compensation plans by Item 10 of Schedule 14A is incorporated herein by reference to the section titled "*Equity Compensation Plan Information*" in Part III, Item 12 of our Annual Report on Form 10-K for the year ended December 31, 2014.

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
Executive Vice President, Corporate Development and Finance,
Chief Financial Officer and Corporate Secretary

April 28, 2015

A COPY OF OUR ANNUAL REPORT ON FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2014, 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, EXECUTIVE 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.

[THIS PAGE INTENTIONALLY LEFT BLANK]

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, 2014

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)

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, 2014, as reported by The Nasdaq Stock Market, was $263,889,528. The calculation of the aggregate market value of voting and non-voting stock excludes 19,847,977 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 February 27, 2015, was 67,739,771.

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 2015 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, 2014.

SUNESIS PHARMACEUTICALS, INC.

TABLE OF CONTENTS

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, Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and the Private Securities Litigation Reform Act of 1995, which 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 regulatory plans to file a marketing authorization application with the European Medicines Agency, our preliminary analysis, assessment and conclusions of the results of the VALOR trail, and the commercial potential of vosaroxin, 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," "could," "estimates," "expects," "intend," "look forward," "may," "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 subsidiaries, 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 our pipeline of new oncology therapeutics for the potential treatment of solid and hematologic cancers. Our most advanced program is QINPREZO™ (vosaroxin), our product candidate for the potential treatment of acute myeloid leukemia, or AML. Vosaroxin is an anticancer quinolone derivative, or AQD—a class of compounds that has not been used previously for the treatment of cancer. We have built a highly experienced cancer drug development organization committed to advancing vosaroxin in multiple indications to improve the lives of people with cancer.

In October 2014, we announced the results of a Phase 3, multi-national, randomized, double-blind, placebo-controlled trial of vosaroxin in combination with cytarabine in patients with relapsed or refractory AML, or the VALOR trial. The VALOR trial, which enrolled 711 adult patients, was 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, and was conducted at 124 study sites in the U.S., Canada, Europe, South Korea, Australia and New Zealand. Patients treated with vosaroxin achieved increased overall survival compared to those treated with placebo (7.5 months vs 6.1 months, HR=0.87), the primary endpoint, but this difference did not achieve statistical significance (p=0.06). The complete remission (CR) rate, the sole secondary efficacy endpoint in the trial, did demonstrate a significant difference for the vosaroxin combination arm (30.1% vs 16.3%, $p < 0.0001$). Detailed results of the VALOR trial were presented in the "Late Breaking Abstracts" session of the American Society of Hematology (ASH) Annual Meeting in December 2014 and are summarized in the "*Vosaroxin Clinical Trials in AML"* section below.

Based on the results of the VALOR trial, we have submitted a letter of intent to the European Medicines Agency, or EMA, describing our intention to file a marketing authorization application, or MAA, for marketing authorization of vosaroxin plus cytarabine for the treatment of relapsed or refractory AML. We plan to meet with European regulatory authorities in preparation for an MAA filing in the second half of 2015.We are also currently engaged in discussions with the U.S. Food and Drug Administration, or FDA, to determine a potential regulatory path forward in the United States.

In the second half of 2013, we announced the initiation of three Phase 1/2 investigator-sponsored trials of vosaroxin, either as a standalone therapy or in combination with approved compounds, in various indications of AML and high-risk myelodysplastic syndrome, or MDS. The trials are being conducted at the University of Texas MD Anderson Cancer Center, or MDACC, Weill Cornell Medical College and New York-Presbyterian Hospital, and the Washington University School of Medicine.

In December 2014, updated results from the ongoing Phase 1b/2 MDACC-sponsored trial of vosaroxin in combination with decitabine in older patients with previously untreated AML and high-risk MDS were presented at the ASH Annual Meeting. This trial is expected to enroll up to a combined total of approximately 70 patients.

We own worldwide development and commercialization rights to vosaroxin. In 2009, vosaroxin received orphan drug designation for the treatment of AML from the FDA and in 2012, the European Commission granted orphan drug designation to vosaroxin for the treatment of AML, which may provide for 10 years of marketing exclusivity in all member countries of the European Union following a product approval for this indication in Europe. In 2011, the FDA granted fast track designation to vosaroxin for the potential treatment of relapsed or refractory AML in combination with cytarabine. We have been granted, or notified of allowance of, a number of key patents for vosaroxin, details of which are provided in the "Intellectual Property" section below.

In January 2014, we announced the expansion of our oncology franchise through separate global licensing agreements for two preclinical kinase inhibitor programs. The first agreement, with Biogen Idec MA, Inc., or Biogen Idec, is for global commercial rights to SNS-062, a selective non-covalently binding oral inhibitor of Bruton's tyrosine kinase, or BTK. BTK is a mediator of B-cell receptor signaling that is integral to the pathogenesis of B-cell malignancies. With preclinical characteristics and activity distinct from compounds in the same class, SNS-062 may hold potential as a differentiated treatment for B-cell malignancies and other blood cancers. We are currently conducting IND-enabling studies for SNS-062, with a view to filing an IND application with the FDA.

The second agreement, with Millennium Pharmaceuticals, Inc., a wholly-owned subsidiary of Takeda Pharmaceutical Company Limited, or Millennium, is for global commercial rights to several potential first-in-class, pre-clinical inhibitors of the novel target phosphoinositide-dependent kinase-1, or PDK1. PDK1 is a key kinase and mediator of PI3K/AKT signaling, a pathway involved in cell growth, differentiation, motility and survival. PDK1 inhibitors are expected to have unique effects on survival and invasion signaling and to be broadly active in both hematologic and solid tumor malignancies. In 2014, we selected two PDK1 inhibitors, SNS-229 and SNS-510, of which we plan to take at least one into IND-enabling absorption, distribution, metabolism and excretion, or ADME, and safety studies in 2015.

Both BTK and PDK1 programs were originally developed under a research collaboration agreement between Biogen Idec and Sunesis. In 2011, the PDK1 program was purchased by and exclusively licensed to Millennium along with the more advanced program, MLN2480, a pan-RAF inhibitor currently in the maximum tolerated dose cohort expansion stage of a Millennium Phase 1, multicenter dose escalation study. We currently expect SNS-062 and the PDK1 inhibitors will be developed exclusively by Sunesis.

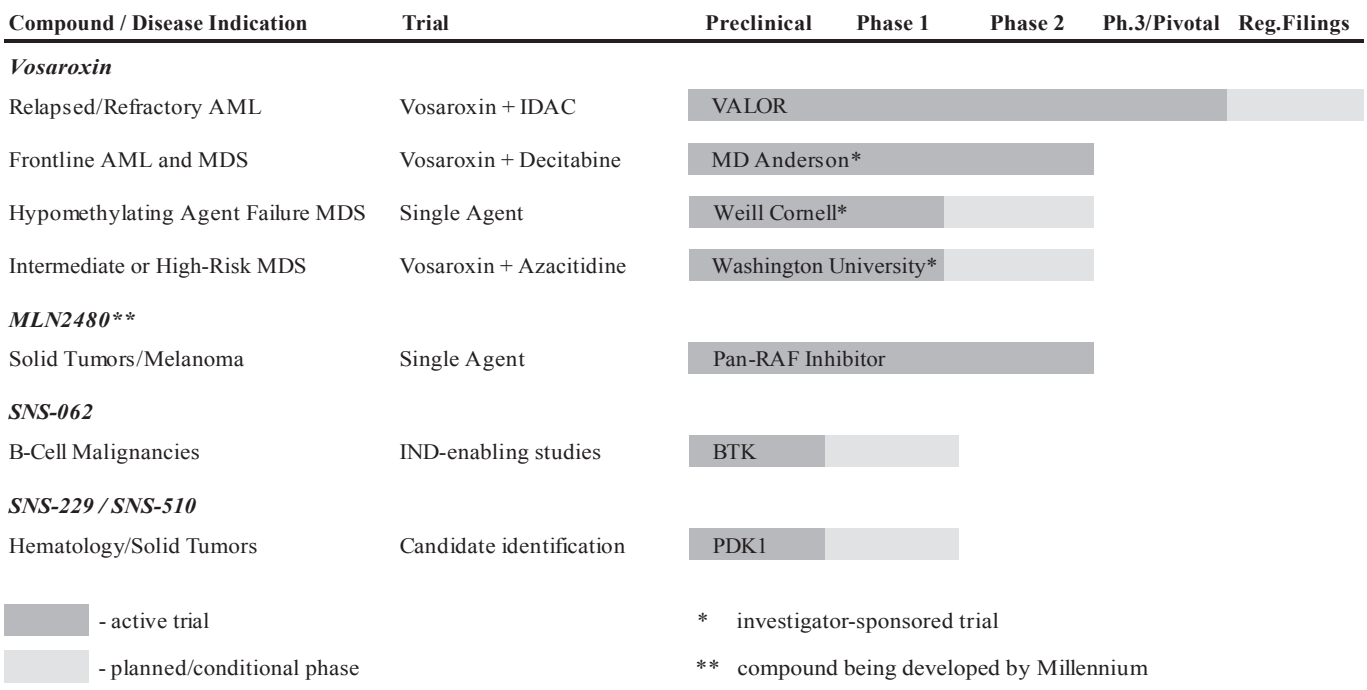
Our Strategy

We plan to continue to build Sunesis into a leading biopharmaceutical company focused on the development and commercialization of new oncology therapeutics for the treatment of solid and hematologic cancers by:

- pursuing regulatory approval for vosaroxin as a potential treatment for relapsed or refractory AML in Europe, the United States, and other major markets;
- building a commercial infrastructure in order to promote and market vosaroxin in the United States as a treatment for AML;
- leveraging potential partners and distributors to commercialize vosaroxin in selective international markets;
- establishing vosaroxin as the new standard of care for patients with relapsed or refractory AML;
- exploring the broader potential of vosaroxin, beyond our pivotal indication, in different patient segments within AML and MDS through investigator sponsored trials;
- investing in additional clinical testing to evaluate vosaroxin for additional AML indications, MDS, other hematologic malignancies and solid tumors;
- leveraging our strong intellectual property protection over vosaroxin to capitalize on its full potential;
- supporting our multi-kinase inhibitor programs with Millennium in oncology and Biogen Idec for immunology indications;
- conducting IND-enabling studies for our BTK inhibitor, SNS-062, with a view to filing an IND application with the FDA;
- taking at least one of the two selected development candidates from our PDK1 inhibitor program, SNS-229 and SNS-510, into IND-enabling ADME and safety studies in 2015; and
- continuing to expand and develop our oncology-focused pipeline through further licensing or collaboration arrangements and research and development.

Development Pipeline

The following chart summarizes our development pipeline:



Vosaroxin

Background. Vosaroxin is an AQD—a class of compounds that has not been used previously for the treatment of cancer. Preclinical data demonstrate that vosaroxin both intercalates DNA and inhibits topoisomerase II, an enzyme critical for cell replication, resulting in replication-dependent, site-selective DNA damage, G2 arrest and apoptosis. We licensed worldwide development and commercialization rights to vosaroxin from Sumitomo Dainippon Pharma Co., Ltd., or Sumitomo, in 2003.

Mechanism of Action. The molecular core of vosaroxin is structurally similar to quinolones and distinct from anthracyclines and anthracenediones. Vosaroxin's anticancer activity results from apoptosis caused exclusively by DNA intercalation, inhibition of topoisomerase II, and cell cycle inhibition in replicating cells.

Vosaroxin's cytotoxic activity is established in diverse human tumors and clinical activity is observed in both solid and hematologic malignancies. In preclinical studies, vosaroxin demonstrated broad antitumor activity and exhibited additive or synergistic activity when combined with several therapeutic agents currently used in the treatment of cancer, including cytarabine. Vosaroxin maintains activity in drug resistant tumor cell lines and human tumor models. Vosaroxin evades P-gp transporter-mediated resistance, and its activity is p53 independent, reducing resistance to therapy. Vosaroxin has demonstrated anticancer activity in patients who have failed other topoisomerase II inhibitor treatment.

Development Opportunity. Our goal is to establish vosaroxin in combination with cytarabine as the standard of care for patients with relapsed or refractory AML. Additionally, we are exploring the broader potential of vosaroxin in different patient segments within AML and MDS through investigator-sponsored trials. Based on the outcome of regulatory interactions related to our VALOR trial, the results of investigator-sponsored trials, competitive concerns, our financial resources and various other factors, we may further invest in the development and clinical testing of vosaroxin for related disease areas and indications such as other AML populations, MDS, other hematologic malignancies and solid tumors.

Vosaroxin Company-Sponsored Clinical Trials in AML

VALOR. 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 to evaluate overall survival in patients with relapsed or refractory AML. The trial, which enrolled 711 adult patients, was conducted at 124 study sites in the U.S., Canada, Europe, South Korea, Australia and New Zealand. Patients were stratified for age, geographic region and disease status and randomized one to one to receive either vosaroxin and cytarabine or placebo and cytarabine. In October 2014, we announced the results from the VALOR trial, and further detail was presented in the "Late Breaking Abstracts" session of the American Society of Hematology (ASH) Annual Meeting in December 2014.

Patients treated with vosaroxin achieved increased overall survival compared to those treated with placebo (7.5 months vs 6.1 months, HR=0.87), the primary endpoint, but this difference did not achieve statistical significance (p=0.06). The complete remission (CR) rate, the sole secondary efficacy endpoint in the trial, did demonstrate a significant difference for the vosaroxin combination arm (30.1% vs 16.3%, $p < 0.0001$).

In a pre-planned analysis accounting for the stratification factors at randomization, a significant improvement in overall survival was demonstrated (HR=0.83, p=0.02). The pre-planned analysis of all treatment strata included the following poor-prognosis patient categories: over 60 years old (7.1 months vs 5.0 months, HR=0.75, p=0.003, n=451), refractory disease (6.7 months vs 5.0 months, HR=0.87, p=0.23, n=301), and early relapsed disease (6.7 months vs 5.2 months, HR=0.77, p=0.04, n=256). Outcomes in patients under 60 years old or with late relapsed disease were comparable between treatment arms, with no improvement in overall survival. Across all strata, the CR and Composite CR (CR+CRp+CRi) rates were higher in the vosaroxin combination arm.

Given the complexity of interpreting the impact of transplantation therapy, a predefined analysis of overall survival censoring for hematopoietic stem cell transplantation was planned. In this analysis, patients receiving the vosaroxin combination had a median overall survival of 6.7 months versus 5.3 months for patients receiving placebo and cytarabine (HR=0.81, p=0.02).

Regarding drug safety, Grade 3 or higher non-hematologic adverse events that were more common in the vosaroxin combination arm were gastrointestinal and infection-related toxicities, consistent with those observed in our previous clinical trials. The rate of serious adverse events was 55.5% in the vosaroxin combination arm compared to 35.7% in the placebo and cytarabine arm. 30-day and 60-day all-cause mortality were comparable between the trial arms (7.9% versus 6.6% and 19.7% versus 19.4%, for the vosaroxin combination versus placebo and cytarabine, respectively).

Phase 2 Combination. The results from our completed Phase 1b/2 clinical trial of vosaroxin in combination with cytarabine in patients with relapsed or refractory AML were published in the November 7, 2014 Ahead of Print issue of *Haematologica.* The article, titled “A Phase 1b/2 study of combination vosaroxin and cytarabine in patients with relapsed or refractory acute myeloid leukemia,” is available online at: *http://www.haematologica.org/content/early/recent*.

The Phase 1b/2 study assessed the safety and tolerability of vosaroxin in combination with cytarabine in patients with relapsed or refractory AML. Escalating vosaroxin doses (10-minute infusion; 10-90 mg/m^2 on days 1, 4) were given in combination with cytarabine on one of two schedules: schedule A (24-hour continuous intravenous infusion, 400 mg/m^2 per day on days 1-5) or schedule B (2-hour intravenous infusion, 1 g/m^2 per day on days 1-5). Following dose escalation, enrollment was expanded at the maximum tolerated dose. The maximum tolerated dose for schedule A was vosaroxin 80 mg/m^2 (dose-limiting toxicities: grade 3 bowel obstruction and stomatitis); the maximum tolerated dose was not reached for schedule B (recommended phase 2 dose: 90 mg/m^2).

The median age in the study was 60 years, and patients had received as many as six prior cycles of therapy. Furthermore, most patients (89%) had intermediate or unfavorable cytogenetic risk status. The most common treatment-emergent non-hematologic adverse events of any grade were diarrhea, hypokalemia, nausea, and stomatitis. In the efficacy population, (all first relapsed or primary refractory patients treated with vosaroxin 80-90 mg/m^2; n=69), the CR and combined CR rates (CR or CR with incomplete blood count recovery) were 25% and 28%, respectively. Thirty-day all-cause mortality was 2.5% among all patients treated at 80-90 mg/m^2.

Phase 2 Single-Agent. The results from our completed Response Evaluation of Vosaroxin in Elderly AmL (REVEAL-1) trial, a Phase 2 trial of single agent vosaroxin in previously untreated, poor-risk elderly AML patients who are unlikely to benefit from standard induction chemotherapy, were published in the November 17, 2014 Online Version of Record of the *British Journal of Haematology*. The article, titled "REVEAL-1, a phase 2 dose regimen optimization study of vosaroxin in older poor-risk patients with previously untreated acute myeloid leukemia," is available online at: *http://onlinelibrary.wiley.com/doi/10.1111/bjh.13214/abstract*.

The REVEAL-1 trial evaluated single-agent vosaroxin in patients ≥60 years of age (n=113) with previously untreated unfavorable prognosis AML. Dose regimen optimization was explored in sequential cohorts (A: 72 mg/m^2 on days 1, 8, 15; B: 72 mg/m^2 on days 1, 8; C: 72 mg/m^2 or 90 mg/m^2 on days 1, 4). The primary efficacy endpoint was combined complete remission rate (CR plus CR with incomplete platelet recovery, or CRp). The median age in the study was 75 years and most patients (82%) had 2 or more risk factors (age ≥ 70, antecedent hematologic disease, ECOG PS=2, or intermediate/unfavorable cytogenetics).

Common (>20%) grade ≥3 adverse events were thrombocytopenia, febrile neutropenia, anemia, neutropenia, sepsis, pneumonia, stomatitis, and hypokalemia. Overall CR and CR/CRp rates were 29% and 32%; median overall survival, or OS, was 7.0 months; 1-year OS was 34%. Schedule C (72 mg/m^2) had the most favorable balance of safety and efficacy, with faster hematologic recovery (median 27 days) and lowest incidence of aggregate sepsis (24%) and 30-day (7%) and 60-day (17%) all-cause mortality. At this dose and schedule, CR and CR/CRp rates were 31% and 35%, median OS was 7.7 months, and 1-year OS was 38%.

Phase 1 Single-Agent. Prior to 2009, we conducted a Phase 1 clinical trial to evaluate safety, pharmacokinetics, and preliminary clinical activity of two dose schedules of vosaroxin in patients with relapsed or refractory acute leukemia. Anti-leukemic activity was observed in both schedules, and the most common dose-limiting toxicity was stomatitis. The maximum tolerated dose was 72 mg/m^2 for a once weekly for three weeks schedule and 40 mg/m^2 for a twice weekly for two weeks schedule.

Vosaroxin Company-Sponsored Clinical Trials in Ovarian Cancer and Other Solid Tumors

In 2010, we completed a Phase 2 single-agent trial of vosaroxin in platinum-resistant ovarian cancer. Three dosing levels in two treatment schedules were studied, and encouraging, durable anti-tumor activity was observed across all doses. For patients on dosing levels of 48, 60 and 75 mg/m^2, the overall response rate, or ORR, was 11%, 11% and 9%, respectively; disease control, defined as stable disease for 12 weeks or more, was 46%, 46% and 51%, respectively; and the median progression-free survival, or PFS, was 83, 61 and 103 days, respectively. Based on clinical activity and tolerability, the 60 mg/m^2 dose and schedule was selected for future consideration. Overall, vosaroxin was generally well tolerated, with more than 10% of patients experiencing severe neutropenia, febrile neutropenia, fatigue, and anemia.

Prior to 2009, we conducted two Phase 1 clinical trials to evaluate different dosing schedules of vosaroxin in patients with advanced solid tumors. We also conducted two Phase 2 trials in non-small cell lung cancer and small cell lung cancer. Although objective responses were observed in both lung cancer trials, it was determined that vosaroxin could be administered with greater dose intensity given the low incidence of severe neutropenia and the trials were halted.

Vosaroxin Investigator Sponsored Clinical Trials

MD Anderson. In July 2013, we announced the initiation of an investigator-sponsored trial of vosaroxin in combination with decitabine in older patients with previously untreated AML and high-risk MDS. The Phase 1/2 trial is being conducted at the University of Texas MD Anderson Cancer Center under the direction of Naval Daver, M.D., Assistant Professor, and Farhad Ravandi, M.D., Professor of Medicine and a principal investigator in the VALOR trial. The primary endpoints of the Phase 1 cohort of the study are to determine the safety, maximum tolerated dose, or MTD, and dose limiting toxicity, or DLT, of vosaroxin in combination with decitabine in patients with high-risk MDS or AML who are elderly and/or unable or unwilling to receive standard cytarabine plus anthracycline based chemotherapy. The primary endpoint of the Phase 2 cohort of the study is to determine the efficacy of the combination based on achievement of CR, and CR with incomplete blood count recovery, or CRi. Secondary endpoints include safety, CR duration, leukemia-free survival, and overall survival. In October 2013, we announced the commencement of the Phase 2 portion of the study. In December 2014, updated results from this study were presented at the ASH Annual Meeting. This trial is expected to enroll up to a combined total of approximately 70 patients.

Weill Cornell. In October 2013, we announced the initiation of a second investigator-sponsored trial of vosaroxin in adult patients with previously treated intermediate-2 or high-risk MDS. The trial is being conducted at Weill Cornell Medical College and New York-Presbyterian Hospital under the direction of Gail J. Roboz, M.D., Associate Professor of Medicine and Director of the Leukemia Program. The Phase 1/2, open-label, dose escalating trial is expected to enroll up to 40 patients with MDS who have previously failed treatment with hypomethylating agent-based therapy. Patient cohorts will initially receive escalating doses of vosaroxin over each 28 day treatment cycle. Once the MTD is determined, an expanded evaluation of safety and hematologic response or improvement rate at this dose level will be conducted in additional subjects, so that the total number of subjects exposed to this dose level increases to up to 15 subjects. In addition to MTD and DLT, study endpoints include the rate of complete remission, partial remission, hematologic improvement and blood transfusion requirements.

Washington University. In December 2013, we announced the initiation of a third investigator-sponsored trial of vosaroxin in combination with azacitidine in patients with MDS. The trial is being conducted at the Washington University School of Medicine under the direction of Meagan A. Jacoby, M.D., Ph.D., Instructor of Medicine, Division of Oncology. The Phase 1/2, open label, dose-escalation trial will enroll up to approximately 40 patients with MDS who may have received up to three prior cycles of

hypomethylating agent-based therapy. Patients will receive vosaroxin (days one and four) and azacitidine (days one through seven) for a maximum of six cycles. This dose escalation study is designed to enroll six patients per cohort in order to determine the MTD and DLT of the combination. Other endpoints include best response, safety, tolerability, and event-free, progression-free, disease-free and overall survival. Once the MTD is determined, up to an additional 20 patients will be enrolled, treated and evaluated at that dose level.

Cardiff University School of Medicine. In December 2011, we announced our participation in the randomized Phase 2/3 Less Intensive 1 (LI-1) Study being conducted by the United Kingdom's National Cancer Research Institute (NCRI) Haematological Oncology Study Group under the direction of Professor Alan K. Burnett, Head of Haematology, Department of Medical Genetics, Haematology & Pathology at Cardiff University School of Medicine. The trial enrolled patients over the age of 60 with AML or high-risk MDS and randomized them to one of a number of treatment regimens: Low Dose Ara-C (control); single-agent vosaroxin; vosaroxin combined with Low Dose Ara-C; or to other experimental therapies considered for inclusion in the comparison. In 2013, at the first interim analyses, the Data Monitoring and Ethics Committee recommended closure of the vosaroxin-containing trial arms as a clinically relevant benefit was unlikely.

MLN 2480

Background. A pan-Raf inhibitor program was originally developed through a collaboration agreement between Sunesis and Biogen Idec. In March 2011, Biogen Idec's rights to this program were purchased by and exclusively licensed to Millennium. In September 2011, Millennium initiated a Phase 1 clinical study of MLN2480, an oral, investigative drug selective for pan-Raf kinase inhibition, in patients with relapsed or refractory solid tumors. The Phase 1, multicenter, open-label, dose escalation study was designed to evaluate the safety, tolerability and MTD of MLN2480, and to be conducted in two stages: dose escalation and cohort expansion. The dose escalation stage is complete and MTD was established, and MLN2480 is now in the cohort expansion stage of this multicenter study. Four abstracts of preclinical and clinical data of MLN2480 were presented at the AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics in November 2014.

Under the license agreement, we may in the future receive up to $57.5 million in pre-commercialization, event-based payments related to the development by Millennium of the first two indications for each of the licensed products directed against the Raf target, and royalty payments depending on related product sales, as further described below.

Mechanism of Action. The Raf kinases (A-Raf, B-Raf and C-Raf) are key regulators of cell proliferation and survival within the mitogen-activated protein kinase (MAPK) pathway.

Development Opportunity. MLN2480 is a pan-Raf kinase inhibitor with a distinct molecular signature which has exhibited a promising profile.

SNS-062

Background. SNS-062 is a non-covalently binding inhibitor of BTK. BTK mediates signaling through the B-cell receptor, or BCR, which is critical for adhesion, migration, proliferation and survival of normal and malignant B-lineage lymphoid cells. BTK has been well validated as a target for treatment of B-cell malignancies, with a BTK inhibitor approved for relapsed/refractory mantle cell lymphoma, relapsed/refractory chronic lymphocytic leukemia, or CLL, CLL with 17p depletion and Waldenström's macroglobulinemia. We are currently conducting IND-enabling studies for SNS-062, with a view to filing an IND application with the FDA. The rights to develop SNS-062 for oncology indications were in-licensed from Biogen Idec in December 2013, as described below.

Mechanism of Action. SNS-062 has activity in BTK kinase assays and has shown efficacy in B-cell signaling assays and in vivo models of B-cell function. The mechanism by which SNS-062 inhibits BTK is distinct from the mechanism of in-class BTK compounds, as SNS-062 binds BTK non-covalently, which does not require interaction with Cysteine 481 in the kinase active domain. In addition, SNS-062 has a distinct kinase inhibitory profile and a favorable pharmacokinetic profile compared to covalently binding BTK inhibitors and this may translate into a distinct clinical benefit for patients.

Development Opportunity. SNS-062 has demonstrated a distinct binding site and favorable pharmacokinetic profile in preclinical studies, and may provide differentiated opportunities for treatment of B-cell malignancies and other blood cancers.

SNS-229 and SNS-510

Background. In January 2014, we in-licensed a series of selective PDK1 inhibitors from Millennium that were discovered under a research collaboration agreement between Biogen Idec and Sunesis, as described below. PDK1 is a key kinase and mediator of PI3K/AKT signaling, a pathway involved in cell growth, differentiation, survival and migration. PDK1 inhibitors are expected to have

unique effects on survival and invasion signaling and to be broadly active in both hematologic and solid tumor malignancies. We have taken a series of PDK1 inhibitors with confirmed antitumor activity in vitro and in vivo into preclinical development, and in 2014, we selected two PDK1 inhibitors, SNS-229 and SNS-510, of which we plan to take at least one into IND-enabling ADME and safety studies in 2015.

Mechanism of Action. There are multiple PI3K pathway inhibitors in late stage development for use in CLL and solid tumor indications, including breast cancer and pancreatic cancer. Because PDK1-dependent activation of AKT is critical for PI3K pathway activation, we believe that PDK1 represents a key oncology target within the PI3K pathway. We believe Sunesis' PDK1 inhibitors are potential first-in-class compounds with demonstrated inhibition of AKT activity and a compelling in vitro and in vivo profile, that have potential for single agent and broad-spectrum combination activity, thus providing a novel therapeutic opportunity for targeting the PI3K signaling pathway in both solid and hematologic malignancies.

Development Opportunity. Inhibitors of PDK1 are expected to be able to provide similar clinical benefits to those observed with PI3K inhibitors and have the potential to provide additional benefits through inhibition of PI3K independent cancer signaling pathways, especially in cancer types in which PDK1 is overexpressed such as breast cancer and AML. We believe that Sunesis' PDK1 inhibitors can be differentiated from PI3K and PDK1 inhibitors currently in research and development and that may provide novel opportunities for treatment of solid and hematological malignancies.

License, Collaboration and Royalty Agreements

Inlicense Agreement with Sumitomo

In October 2003, we entered into an agreement with Sumitomo to acquire exclusive worldwide development and marketing rights for vosaroxin. In January 2011, we made a $0.5 million milestone payment to Sumitomo 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 in aggregate to Sumitomo for (a) filing NDAs, in the U.S., 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 will become payable to Sumitomo.

The agreement also provides for royalty payments to Sumitomo at rates based on total annual net sales. Under the agreement, we may reduce our royalty payments to Sumitomo 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 its rights to the product in that region to Sumitomo. The agreement may be terminated by either party for the other party's uncured breach or bankruptcy.

Licensing and Collaboration Agreements with Biogen Idec and Millennium

Overview

In August 2004, we entered into the original collaboration agreement with Biogen Idec to discover, develop and commercialize small molecule inhibitors of the human protein Raf kinase, including family members Raf-1, A-Raf, B-Raf and C-Raf, collectively Raf, and up to five additional targets that play a role in oncology and immunology indications such as BTK and PDK1, or the Biogen Idec OCA.

In June 2008, 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 that date. We received a total of $3.0 million in milestone payments for meeting certain preclinical milestones through the Biogen Idec 1st ARCA date, as described below, including a $1.5 million event-based payment received in cash in July 2009 for Biogen Idec's selection of a Raf kinase inhibitor development candidate for the treatment of cancer.

In March 2011, as part of a series of agreements among Sunesis, Biogen Idec and Millennium, we entered into: (a) an amended and restated collaboration agreement with Biogen Idec, or the Biogen Idec 1st ARCA; (b) a license agreement with Millennium, or the Millennium Agreement; and (c) a termination and transition agreement among the Sunesis, Biogen Idec and Millennium, or the Termination and Transition Agreement.

The Termination and Transition Agreement provided for (a) the termination of Biogen Idec's exclusive rights under the Biogen Idec OCA to all discovery programs under such agreement other than for small molecule inhibitors of the human protein BTK; (b) the

permitted assignment to Millennium of all related Sunesis collaboration assets and rights to Raf kinase and the human protein PDK1; and (c) the payment of $4.0 million to us from Millennium, which was recorded as revenue in March 2011.

Biogen Idec

The Biogen Idec 1st ARCA amended and restated the Biogen Idec OCA, to provide for the discovery, development and commercialization of small molecule BTK inhibitors. Under this agreement, we no longer have research obligations, but licenses granted to Biogen Idec with respect to the research collaboration under the Biogen Idec OCA (other than the licenses transferred to Millennium under the Millennium Agreement) remain in effect.

In June 2012, we received an event-based payment of $1.5 million from Biogen Idec for its advancement of pre-clinical work in connection with the Biogen Idec 1st ARCA. Under this agreement, we are eligible to receive up to an additional $58.5 million in pre-commercialization, event-based payments related to the development by Biogen Idec of the first two indications for licensed products against the BTK target. We are also eligible to receive royalty payments depending on related product sales, which may be increased if we exercise our option to co-fund product candidates worldwide.

In December 2013, we entered into a second amended and restated collaboration agreement with Biogen Idec, or the Biogen Idec 2nd ARCA, which amended and restated the Biogen Idec 1st ARCA, to provide us with an exclusive worldwide license to develop, manufacture and commercialize SNS-062, a BTK inhibitor synthesized under the Biogen Idec 1st ARCA, solely for oncology indications. Under the Biogen Idec 2nd ARCA, we may be required to make a $2.5 million milestone payment depending on our development of SNS-062 and royalty payments depending on related product sales of SNS-062. Additionally, potential future royalty payments to Sunesis were reduced to equal those amounts due to Biogen Idec for potential future sales of SNS-062. All other of Sunesis' rights contained in the Biogen Idec 1st ARCA remain unchanged.

Millennium

Under the Millennium Agreement, we granted exclusive licenses to products against two oncology targets originally developed under the Biogen Idec OCA, Raf and PDK1, under substantially the same terms as under the Biogen Idec OCA.

In January 2014, we entered into an amended and restated license agreement with Millennium, or the Amended Millennium Agreement, to provide us with an exclusive worldwide license to develop and commercialize preclinical inhibitors of PDK1. In connection with execution of the Amended Millennium Agreement, we paid an upfront fee and may in the future be required to make up to $9.2 million in pre-commercialization milestone payments depending on our development of PDK1 inhibitors and royalty payments depending on related product sales.

With respect to the Raf target product rights that were originally licensed to Millennium under the Millennium Agreement, we may in the future receive up to $57.5 million in pre-commercialization, event-based payments related to the development by Millennium of the first two indications for each of the licensed products directed against the Raf target and royalty payments depending on related product sales. The agreement also provides us with future co-development and co-promotion rights. Millennium is currently conducting a Phase 1 clinical study of an oral investigative drug, MLN2480, which is licensed to them under the Amended Millennium Agreement.

Royalty Agreement with RPI

In March 2012, we entered into a Revenue Participation Agreement, or the Royalty Agreement, with RPI Finance Trust, or RPI, an entity related to Royalty Pharma. In September 2012, as a result of the recommendation by the DSMB to increase the sample size for the VALOR trial, RPI made a $25.0 million cash payment to us in exchange for a 6.75% royalty on any future net sales of vosaroxin. In conjunction with the Royalty Agreement, we issued two five-year warrants to RPI, each to purchase 1,000,000 shares of our common stock, at exercise prices of $3.48 and $4.64 per share, respectively. Of the $25.0 million, $21.9 million was recorded as deferred revenue and is being amortized to revenue over the related performance period of the Royalty Agreement. The remaining $3.1 million represents the fair value of the warrants. Both warrants were exercised in full in 2014.

Revenues

Over the past three years, we have generated revenue through the Royalty Agreement with RPI and the Biogen Idec 1st ARCA. In 2014 and 2013, we recognized $5.7 million and $8.0 million of revenue, respectively, related to the Royalty Agreement with RPI. In 2012, we recognized $2.3 million of revenue related to the Royalty Agreement with RPI and $1.5 million related to the Biogen Idec 1st ARCA, which represented 60% and 40% of 2012 revenues, respectively.

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, and the finished drug product incorporating the API, or FDP. 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. 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 at least five contract manufacturers in North America have suitable facilities to manufacture the vosaroxin API, and at least four have suitable facilities to manufacture the vosaroxin FDP. A number of manufacturers outside of North America have suitable facilities, including one that currently manufactures our vosaroxin API. 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, including the manufacture of registration batches of API and FDP. Prior to commercial sale, we will need to perform process validation studies on API and FDP batches. If the results of these process validation studies do not meet preset criteria, the regulatory approval or commercial launch of vosaroxin may be delayed.

Competition

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, MDS and B-cell malignancies. 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 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;
- the availability of reimbursement from government agencies and private insurance companies; and
- acceptance of future products by physicians and other healthcare providers.

Vosaroxin is a small molecule therapeutic that, if approved, will compete with other drugs and therapies currently used for AML, such as nucleoside analogs, anthracyclines, hypomethylating agents, other inhibitors of topoisomerase II, and other novel agents. Additionally, other compounds currently in development could become potential competitors of vosaroxin, if approved for marketing. We expect competition with vosaroxin for the treatment of AML and other potential future indications to increase as additional products are developed and approved for use in various patient populations.

Intellectual Property

We believe that patent protection is very important 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, some of which we are no longer actively developing.

The vosaroxin composition-of-matter is covered by U.S. Patent No. 5,817,669 and its counterpart patents in 43 foreign jurisdictions. This U.S. patent is due to expire in October 2015, and most of its foreign counterparts are due to expire in June 2015. While it is possible that patent term restoration and/or supplemental patent certificates would be available for some of these or other patents we own or control through licenses, we cannot guarantee that such additional protection will be obtained, and the expiration dates described here do not include such term restoration.

We have been granted additional patents relating to vosaroxin compositions, and uses and manufacture of vosaroxin, in the U.S.:

- U.S. Patent No. 7,989,468 claims methods of use of vosaroxin at clinically relevant dose ranges and schedules for the treatment of leukemia, with expiry in 2026;
- U.S. Patent Nos. 7,829,577 and 8,669,270 claim certain pharmaceutical compositions of vosaroxin, including the formulation used in our VALOR trial, with expiry in 2025;
- U.S. Patent No. 8,580,814 claims certain methods of use of vosaroxin at clinically relevant dose ranges to treat acute myelogenous leukemia, with expiry in 2026;
- U.S. Patent No. 8,822,493 claims certain methods of use of vosaroxin at clinically relevant dose ranges together with therapeutically effective amounts of cytarabine to treat cancer, with expiry in 2024;
- U.S. 8,124,773 B2 claims a hydrate of vosaroxin with expiry in 2028 and U.S. Patent No. 8,765,954 claims certain compositions containing this hydrate of vosaroxin, with expiry in 2027;
- U.S. Patent No. 8,497,282 claims a method of making vosaroxin, with expiry in 2031 and U.S. Patent No. 8,802,719 claims certain intermediates useful in the making of vosaroxin, with expiry in 2029;
- U.S. Patent Nos. 8,586,601 and 8,138,202 claim certain compositions containing vosaroxin, with expiry in 2030; and
- U.S. Patent No. 7,968,565 claims a combination of vosaroxin and cytarabine, with expiry in 2026.

We have been granted additional patents relating to vosaroxin compositions, and uses and manufacture of vosaroxin, in Europe:

- EPO Patent No. 1725233 B1, which has been validated in multiple European Patent Office, or EPO, member states, claims certain pharmaceutical compositions of vosaroxin, including the formulation used in our VALOR trial, with expiry in 2025; and
- EP Patent No. 1729770 B1, which has been validated in multiple EPO member states, claims combinations of vosaroxin and certain anticancer agents, including cytarabine, with expiry in 2025.

In addition to the listed US and European patents, we have been granted similar and related patents in certain other countries, and patent applications are pending in these and other countries, including major markets, throughout the world. Other patents have also been granted in the US and other countries claiming certain technology related to vosaroxin and other methods of use of vosaroxin.

As of December 31, 2014, we own, co-own or have rights to approximately 171 granted U.S. and foreign patents, and approximately 136 pending U.S. and foreign applications, pertaining to vosaroxin and compositions and uses thereof. 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 April 2012, the European Commission granted orphan drug designation to vosaroxin for the treatment of AML, which may provide for 10 years of marketing exclusivity in all member countries of the European Union following product approval for this indication in Europe. 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 granted claims. 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 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 be issued 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 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.

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 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, Millennium, or our potential future licensees or collaboration partners, if any, may not result in FDA authorization to commence a clinical trial.

Clinical Trials

Clinical trials involve the administration of an investigational drug 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 conditionally approve an NDA for a drug candidate on a sponsor's agreement to conduct additional clinical trials to further assess the drug's safety and/or efficacy after NDA approval. Such post-approval trials are typically referred to as Phase 4 clinical trials.

New Drug Applications

Assuming successful completion of the required clinical testing, the results of the preclinical studies and clinical trials, together with detailed information relating to the product's chemistry, manufacture, controls and proposed labeling, among other things, are submitted to the FDA as part of an NDA requesting approval to market the product for one or more indications. Under federal law, the

submission of most NDAs is additionally subject to a substantial application user fee under the Prescription Drug User Fee Act, or PDUFA, and the sponsor of an approved NDA is also subject to annual product and establishment user fees, which fees are typically increased annually.

The FDA conducts a preliminary review of all NDAs within the first 60 days after submission before accepting them for filing to determine whether they are sufficiently complete to permit substantive review. The FDA may request additional information rather than accept an NDA for filing. In this event, the application must be resubmitted with the additional information. The resubmitted application is also subject to review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review. The FDA has agreed to specified performance goals in the review of NDAs. Under these goals, the FDA has committed to review most such applications for non-priority products within 10 months of filing, and most applications for priority review products, that is, drugs that the FDA determines represent a significant improvement over existing therapy, within six months of filing. The review process may be extended by the FDA for three additional months to consider certain information or clarification regarding information already provided in the submission. The FDA may also refer applications for novel drugs or products that present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Before approving an NDA, the FDA typically will inspect the facility or facilities where the product is manufactured. The FDA will not approve an application unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. In addition, before approving an NDA, the FDA will typically inspect one or more clinical sites to assure compliance with GCP and integrity of the clinical data submitted.

The testing and approval process requires substantial time, effort and financial resources, and each may take many years to complete. Data obtained from clinical activities are not always conclusive and may be susceptible to varying interpretations, which could delay, limit or prevent regulatory approval. The FDA may not grant approval on a timely basis, or at all. We may encounter difficulties or unanticipated costs in our efforts to develop our product candidates and secure necessary governmental approvals, which could delay or preclude us from marketing our products.

After the FDA's evaluation of the NDA and inspection of the manufacturing facilities, the FDA may issue an approval letter or a complete response letter. An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications. A complete response letter generally outlines the deficiencies in the submission and may require substantial additional testing or information in order for the FDA to reconsider the application. If and when those deficiencies have been addressed to the FDA's satisfaction in a resubmission of the NDA, the FDA will issue an approval letter. The FDA has committed to reviewing such resubmissions in two or six months depending on the type of information included. Even with submission of this additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval and refuse to approve the NDA. Even if the FDA approves a product, it may limit the approved indications for use for the product, require that contraindications, warnings or precautions be included in the product labeling, require that post-approval studies, including Phase 4 clinical trials, be conducted to further assess a drug's safety after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution restrictions or other risk management mechanisms, including Risk Evaluation and Mitigation Strategies, or REMs, which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of post-market studies or surveillance programs. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes and additional labeling claims, are subject to further testing requirements and FDA review and approval.

Orphan Drug Designation

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 receipt of orphan drug designation from the FDA, 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 PDUFA application fee, and upon approval, the potential for seven years of market exclusivity for the orphan-designated product for the orphan-designated indication. In October 2009, the FDA granted orphan drug designation to vosaroxin for treatment of AML.

In the European Union, orphan status is available for therapies addressing conditions that affect five or fewer out of 10,000 people, and provides for the potential for 10 years of marketing exclusivity in Europe for the orphan-designated product for the orphan-designated indication. The marketing exclusivity period can be reduced to six years if, at the end of the fifth year, available evidence establishes that the product is sufficiently profitable not to justify maintenance of market exclusivity. In April 2012, the European Commission granted orphan drug designation to vosaroxin for the treatment of AML.

Fast Track Designation

The 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 PDUFA, 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 priority review. Under FDA policies, a drug candidate is eligible for priority review, or, under Prescription Drug User Fee Act V, review within eight months from the time a complete NDA is submitted (a six-month review period begins at the conclusion of the 60-day filing review period that begins on the date of FDA receipt of the submission), 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.

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, or the ultimate impact, if any, of the fast track designation 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, Biogen Idec, Millennium, or our potential future licensees or 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.

Reimbursement

Sales of any of our product candidates, if approved, will depend, in part, on the extent to which the costs of the products will be covered by third-party payors, including government health programs such as Medicare and Medicaid, commercial health insurers and managed care organizations. These third-party payors have been increasingly challenging the prices charged for medical products and services. Additionally, the containment of healthcare costs has become a priority of federal and state governments, and the prices of drugs have been a focus in this effort. In particular, government entities have shown significant interest in implementing cost-containment programs, including price controls, restrictions on reimbursement and requirements for substitution of generic products. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit our ability to achieve significant net sales and results. If these third-party payors do not consider our products to be cost-effective compared to other available therapies, they may not cover our products after approval as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow us to sell our products on a profitable basis.

Current and future legislative proposals to further reform healthcare or reduce healthcare costs may result in lower reimbursement for our products. The cost containment measures that payors and providers are instituting and the effect of any healthcare reform initiative implemented in the future could significantly reduce our revenues from the sale of our products.

For example, implementation of the Affordable Care Act has the potential to substantially change healthcare financing and delivery by both governmental and private insurers, and significantly impact the pharmaceutical industry. The Affordable Care Act, among other things, established an annual, nondeductible fee on any entity that manufactures or imports certain specified branded prescription drugs and biologic agents, increased the minimum Medicaid rebates owed by most manufacturers under the Medicaid Drug Rebate Program, extended the Medicaid Drug Rebate program to utilization of prescriptions of individuals enrolled in Medicaid managed care organizations, and provided incentives to programs that increase the federal government's comparative effectiveness research. In addition, other legislative changes have been proposed and adopted since the Affordable Care Act was enacted. In August 2011, the President signed into law the Budget Control Act of 2011, which, among other things, created the Joint Select Committee on Deficit Reduction to recommend to Congress proposals in spending reductions. The Joint Select Committee did not achieve a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, triggering the legislation's automatic reduction to several government programs. This includes reductions to Medicare payments to providers of 2% per fiscal year, which went into effect in April 2013 and will remain in effect through 2024 unless additional congressional action is taken. Additionally, in January 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, reduced Medicare payments to several providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for our products or additional pricing pressure.

Healthcare Law and Regulation

In addition to FDA restrictions on marketing of pharmaceutical products, several other types of state and federal laws restrict our business activities, including certain marketing practices. These laws include, without limitation, anti-kickback laws,false claims laws, data privacy and security laws, as well as transparency laws regarding payments or other items of value provided to healthcare providers.

The federal healthcare program anti-kickback statute prohibits, among other things, knowingly and willfully offering, paying, soliciting or receiving remuneration to induce or in return for purchasing, leasing, ordering or arranging for the purchase, lease or order of any healthcare item, good, facility or service reimbursable under Medicare, Medicaid or other federal healthcare programs. The term "remuneration" has been broadly interpreted to include anything of value. This statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on the one hand and prescribers, purchasers and formulary managers on the other. Although there are a number of statutory exceptions and regulatory safe harbors protecting certain common activities from prosecution or other regulatory sanctions, the exceptions and safe harbors are drawn narrowly, and practices that involve remuneration that are alleged to be intended to induce prescribing, purchases or recommendations may be subject to scrutiny if they do not qualify for an exception or safe harbor. Failure to meet all of the requirements of a particular applicable statutory exception or regulatory safe harbor does not make the conduct per se illegal under the federal healthcare program anti-kickback statute. Instead, the legality of the arrangement will be evaluated on a case-by-case basis based on a cumulative review of all its facts and circumstances. Several courts have interpreted the statute's intent requirement to mean that if any one purpose of an arrangement involving remuneration is to induce referrals of federal healthcare covered business, the federal healthcare program anti-kickback statute has been violated. Additionally, the intent standard under the federal healthcare program anti-kickback statute was amended by the Patient Protection and Affordable Care Act of 2010, as amended by the Health Care and Education Reconciliation Act of 2010, collectively the Affordable Care Act, to a stricter standard such that a person or entity no longer needs to have actual knowledge of the statute or specific intent to

violate it in order to have committed a violation. In addition, the Affordable Care Act codified case law that a claim including items or services resulting from a violation of the federal healthcare program anti-kickback statute constitutes a false or fraudulent claim for purposes of the federal civil False Claims Act.

Federal false claims laws, including the civil False Claims Act, and civil monetary penalties laws, prohibit any person or entity from, among other things, knowingly presenting, or causing to be presented, a false claim for payment to the federal government, or knowingly making, or causing to be made, a false statement to have a false claim paid. Pharmaceutical and other healthcare companies have been prosecuted under these laws for, among other things, allegedly inflating drug prices they report to pricing services, which in turn were used by the government to set Medicare and Medicaid reimbursement rates, and for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. In addition, certain marketing practices, including off-label promotion, may also violate false claims laws.

The federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, created new federal criminal statutes that prohibit among other actions, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private third-party payors, knowingly and willfully embezzling or stealing from a healthcare benefit program, willfully obstructing a criminal investigation of a healthcare offense, and knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services. Like the federal healthcare program anti-kickback statute, the Affordable Care Act amended the intent standard for certain healthcare fraud under HIPAA such that a person or entity no longer needs to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation.

In addition, we may be subject to data privacy and security regulation by both the federal government and the states in which we conduct our business. HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and its implementing regulations, imposes certain requirements relating to the privacy, security and transmission of individually identifiable health information. Among other things, HITECH makes HIPAA's security standards directly applicable to business associates, independent contractors or agents of covered entities that receive or obtain protected health information in connection with providing a service on behalf of a covered entity. HITECH also created four new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions.

Additionally, the federal Physician Payments Sunshine Act, created under the Affordable Care Act, and its implementing regulations, require certain manufacturers of drugs, devices, biologicals and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report information related to certain payments or other transfers of value provided to physicians and teaching hospitals, or to entities or individuals at the request of, or designated on behalf of, the physicians and teaching hospitals and to report annually certain ownership and investment interests held by physicians and their immediate family members.

The majority of states also have statutes or regulations similar to the aforementioned federal laws, some of which are broader in scope and apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor.

If our operations are found to be in violation of any of the health regulatory laws described above or any other laws that apply to us, we may be subject to penalties, potentially significant criminal and civil and/or administrative penalties, damages, fines, disgorgement, imprisonment, exclusion from participation in government healthcare programs, contractual damages, reputational harm, administrative burdens, diminished profits and future earnings, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

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 enrolled patients in Europe, Canada, South Korea, 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.

To obtain a marketing authorization of a drug in the European Union, we must submit a marketing authorization application, or MAA, under the centralized procedure for vosaroxin. The centralized procedure provides for the grant of a single marketing authorization from the European Commission following a favorable opinion by the Committee for Medicinal Products for Human Use, or the CHMP, of the EMA that is valid in all European Union member states, as well as Iceland, Liechtenstein and Norway. The centralized procedure is compulsory for medicines produced by specified biotechnological processes, products designated as orphan medicinal products, advanced therapy medicinal products and products with a new active substance indicated for the treatment of specified diseases. Under the centralized procedure the maximum timeframe for the evaluation of an MAA by the EMA is 210 days, excluding clock stops, when additional written or oral information is to be provided by the applicant in response to questions asked by the CHMP.

In the EEA, the EMA's Committee for Orphan Medicinal Products grants orphan drug designation to promote the development of products that are intended for the diagnosis, prevention or treatment of life-threatening or chronically debilitating conditions affecting not more than five in 10,000 persons in the European Union and for which no satisfactory method of diagnosis, prevention, or treatment has been authorized (or the product would be a significant benefit to those affected). Additionally, designation is granted for products intended for the diagnosis, prevention, or treatment of a life-threatening, seriously debilitating or serious and chronic condition and when, without incentives, it is unlikely that sales of the drug in the European Union would be sufficient to justify the necessary investment in developing the medicinal product. A European Union orphan drug designation entitles a party to financial incentives such as reduction of fees or fee waivers and 10 years of market exclusivity is granted following medicinal product approval. This period may be reduced to six years if the orphan drug designation criteria are no longer met, including where it is shown that the product is sufficiently profitable not to justify maintenance of market exclusivity. Orphan drug designation must be requested before submitting an application for marketing approval. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process.

In the EEA, marketing authorization applications for new medicinal products not authorized have to include the results of studies conducted in the pediatric population, in compliance with a pediatric investigation plan, or PIP, agreed with the EMA's Pediatric Committee, or the PDCO. The PIP sets out the timing and measures proposed to generate data to support a pediatric indication of the drug for which marketing authorization is being sought. The PDCO can grant a deferral of the obligation to implement some or all of the measures of the PIP until there are sufficient data to demonstrate the efficacy and safety of the product in adults. Further, the obligation to provide pediatric clinical trial data can be waived by the PDCO when these data is not needed or appropriate because the product is likely to be ineffective or unsafe in children, the disease or condition for which the product is intended occurs only in adult populations, or when the product does not represent a significant therapeutic benefit over existing treatments for pediatric patients. Once the marketing authorization is obtained in all Member States of the European Union and study results are included in the product information, even when negative, the product is eligible for six months' supplementary protection certificate extension. For orphan-designated medicinal products, the 10-year period of market exclusivity is extended to 12 years.

Under the Canadian regulatory system, Health Canada is the regulatory body that governs the sale of drugs and their 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 insurance companies.

Research and Development Expenses

We incurred $27.7 million, $28.9 million and $29.2 million of research and development expenses in 2014, 2013 and 2012, respectively, primarily related to the development of vosaroxin. We expect to continue to incur significant development expenses related to the 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, 2014, our workforce consisted of 39 full-time equivalent employees, of which 20 are engaged in research and development and 19 are engaged in general and administrative, medical affairs and commercial planning 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. 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.

Available Information

Our website is located at *www.sunesis.com*. The contents of our website are not intended to be incorporated by reference into this Annual Report on Form 10-K or in any other report or document we file with the Securities and Exchange Commission, or SEC, and any references to our websites are intended to be inactive textual references only. The following filings are available through our website after we file them with the SEC: Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, as well as any amendments to such reports and all other filings pursuant to Section 13(a) or 15 (d) of the Securities Act. These filings are also available for download free of charge on our investor relations website. Additionally, copies of materials filed by us with the SEC may be accessed at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549 or at www.sec.gov. For information about the SEC's Public Reference Room, contact 1-800-SEC-0330.

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 Annual Report on Form 10-K 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 pursue our regulatory strategy for the potential commercialization of QINPREZO™ (vosaroxin), and to continue the development of vosaroxin and our other programs.

We believe that with $43.0 million in cash and investments held as of December 31, 2014, we currently have the resources to fund our operations through the first quarter of 2016.

However, we will need to raise substantial additional capital to:

- complete the development, regulatory strategy and potential commercialization of vosaroxin in AML;
- 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;
- need for additional or expanded clinical trials;
- timing, economic and other terms of any licensing, collaboration or other similar arrangement into which we may enter;
- costs and timing of seeking and obtaining FDA, EMA, or other regulatory approvals;

- extent of our other development activities, including our other clinical programs and in-license agreements;
- costs associated with building or accessing commercialization and additional manufacturing capabilities and supplies;
- costs of acquiring or investing in businesses, product candidates and technologies, if any;
- costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;
- effect of competing technological and market developments; and
- costs of supporting our arrangements with Biogen Idec, Millennium or any potential future licensees or partners.

Until we can generate a sufficient amount of licensing, 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, one or more possible licenses, collaborations or other similar arrangements with respect to development and/or commercialization rights to vosaroxin or our other development programs, 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 or preferred 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 any regulatory filings related to the VALOR trial, and/or limit or cease our operations.

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, 2014, 2013 and 2012 were $43.0 million, $34.6 million and $44.0 million, respectively. As of December 31, 2014, we had an accumulated deficit of $522.7 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 we seek regulatory approvals for vosaroxin, and as we prepare to 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 license and collaboration agreements. We currently have two agreements, the Biogen Idec 2nd ARCA and the Amended Millennium Agreement, which each include certain pre-commercialization event-based and royalty payments. We cannot predict whether we will receive any such payments under these agreements in the foreseeable future, or at all.

We also do not anticipate that we will generate revenue from the sale of products until at least 2016, if at all. 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 lead to regulatory approval.

Vosaroxin is vulnerable to the risks of failure inherent in the drug development process. Our VALOR trial failed to meet its primary endpoint, and we may not be able to obtain regulatory approval for commercialization in any of the United States, Europe, or in other regions. We may 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, and the LI-1 trial, conducted by a co-operative group in Europe, was halted at an interim data analysis. 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 any future clinical trials with vosaroxin or any of our product candidates 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 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 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;
- 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 the vosaroxin active pharmaceutical ingredient, or API, and finished drug product, or FDP, to supply us with our vosaroxin API and FDP. If we fail to obtain sufficient quantities of these materials, the development and potential commercialization of vosaroxin could be halted or significantly delayed.

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. The vosaroxin API is classified as a cytotoxic substance, limiting the number of available manufacturers for both API and FDP.

We currently rely on two contract manufacturers for the vosaroxin API. 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 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. 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, stability programs 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 and FDP needs for the foreseeable future.

Vosaroxin requires precise, high quality manufacturing. For example, in the past, we observed visible particles during stability studies of two vosaroxin FDP lots which resulted from process impurities in the vosaroxin API that, when formulated into the packaged vial of the vosaroxin FDP, resulted in the formation of these particles. We have since addressed this issue by the implementation of a revised manufacturing process to control the impurities and thereby minimize particle formation, however, there is no assurance that similar issues will not arise in the future as we prepare for regulatory approval and potential commercialization of vosaroxin.

In addition to process impurities, the failure of our contract manufacturers 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, including the manufacture of registration batches of API and FDP. Prior to commercial sale, we will need to perform process validation studies on API and FDP batches. If the results of these process validation studies do not meet preset criteria, the regulatory approval or commercial launch of vosaroxin may be delayed.

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. We completed enrollment of the VALOR trial in September 2013, but we may be required to enroll patients for additional clinical trials required by the FDA or other regulatory authorities. 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.

The results of preclinical studies and clinical trials may not satisfy the requirements of the FDA, EMA or other regulatory agencies.

Prior to receiving approval to commercialize vosaroxin or future product candidates, if any, in the United States or internationally, we must demonstrate with substantial evidence from well-controlled clinical trials, to the satisfaction of the FDA, EMA 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 VALOR trial failed to meet its primary endpoint. Even if we believe the preclinical or clinical data are promising, such data may not be sufficient to support approval by the FDA, EMA and other regulatory authorities.

We rely on third parties to conduct our clinical trials. If these third parties do not successfully carry out their contractual duties or fail to 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 may expand our development capabilities in the future, 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 may expand our research and development capabilities in the future 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, MDS and B-cell malignancies. 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;
- our ability to manufacture and sell commercial quantities of future products to the market;
- the availability of reimbursement from government agencies and private insurance companies; and
- acceptance of future products by physicians and other healthcare providers.

Vosaroxin is a small molecule therapeutic that, if approved, will compete with other drugs and therapies currently used for AML, such as nucleoside analogs, anthracyclines, hypomethylating agents, other inhibitors of topoisomerase II, and other novel agents. Additionally, other compounds currently in development could become potential competitors of vosaroxin, if approved for marketing.

If approved, we expect competition for vosaroxin for the treatment of AML and other potential future indications 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 or are subject to marketing exclusivity administered by regulatory authorities.

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, valid, or enforceable 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 scope, validity and enforceability of patents can vary from country to country, and can change depending on changes in national and international law, and as such, 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, our licensors' or our collaboration partners' pending patent applications will result in issued patents;
- any of our, our licensors' or our collaboration partners' patents will be valid or enforceable;
- because of differences in patent laws of countries, any patent granted in one country or region will be granted in another, or, if so, have the same or a different scope;
- 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
- any patents or other proprietary rights of third parties 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 or collaborators, 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 secret protection against them and our business could be harmed.

The initial composition-of-matter patents covering vosaroxin are due to expire in 2015. While we continue to seek additional patent protection for vosaroxin and methods of its manufacture and use, 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 any patents that are granted.

The vosaroxin composition-of-matter is covered by U.S. Patent No. 5,817,669 and its counterpart patents in 43 foreign jurisdictions. This U.S. patent is due to expire in October 2015, and most of its foreign counterparts are due to expire in June 2015. While it is possible that patent term restoration and/or supplemental patent certificates would be available for some of these or other patents we own or control through licenses, we cannot guarantee that such additional protection will be obtained, and the expiration dates described here do not include such term restoration.

We have been granted additional patents relating to vosaroxin compositions, and uses and manufacture of vosaroxin, in the U.S.:

- U.S. Patent No. 7,989,468 claims methods of use of vosaroxin at clinically relevant dose ranges and schedules for the treatment of leukemia, with expiry in 2026;
- U.S. Patent Nos. 7,829,577 and 8,669,270 claim certain pharmaceutical compositions of vosaroxin, including the formulation used in our VALOR trial, with expiry in 2025;
- U.S. Patent No. 8,580,814 claims certain methods of use of vosaroxin at clinically relevant dose ranges to treat acute myelogenous leukemia, with expiry in 2026;
- U.S. Patent No. 8,822,493 claims certain methods of use of vosaroxin at clinically relevant dose ranges together with therapeutically effective amounts of cytarabine to treat cancer, with expiry in 2024;
- U.S. 8,124,773 B2 claims a hydrate of vosaroxin with expiry in 2028 and U.S. Patent No. 8,765,954 claims certain compositions containing this hydrate of vosaroxin, with expiry in 2027;
- U.S. Patent No. 8,497,282 claims a method of making vosaroxin, with expiry in 2031 and U.S. Patent No. 8,802,719 claims certain intermediates useful in the making of vosaroxin, with expiry in 2029;
- U.S. Patent Nos. 8,586,601 and 8,138,202 claim certain compositions containing vosaroxin, with expiry in 2030; and
- U.S. Patent No. 7,968,565 claims a combination of vosaroxin and cytarabine, with expiry in 2026.

We have been granted additional patents relating to vosaroxin compositions, and uses and manufacture of vosaroxin, in Europe:

- EPO Patent No. 1725233 B1, which has been validated in multiple EPO member states, claims certain pharmaceutical compositions of vosaroxin, including the formulation used in our VALOR trial, with expiry in 2025; and
- EP Patent No. 1729770 B1, which has been validated in multiple EPO member states, claims combinations of vosaroxin and certain anticancer agents, including cytarabine, with expiry in 2025.

In addition to the listed US and European patents, we have been granted similar and related patents in certain other countries, and patent applications are pending in these and other countries, including major markets, throughout the world. In addition, other patents have been granted in the US and other countries claiming certain technology related to vosaroxin and other methods of use of vosaroxin.

We do not know when, if ever, vosaroxin will be approved by the FDA or foreign regulatory authorities. Even if vosaroxin is approved for commercial marketing 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. We do not know whether patent term extensions and data exclusivity periods will be available in the future for any or all of the patents we own or have licensed. Our obligation to pay royalties to Sumitomo Dainippon Pharma Co., Ltd., the company from which we licensed vosaroxin, may extend beyond the patent expiration, which would further erode the profitability of this product. In addition, our potential obligation to pay RPI royalties pursuant to the Royalty Agreement would also 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 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, by contracting with third parties or through collaborations with marketing partners, we will not be successful in commercializing vosaroxin.

We currently have no sales or distribution capabilities and a limited marketing staff. If we are able to pursue and obtain marketing approval for vosaroxin in the U.S., we will plan to establish our own sales and marketing organization with technical expertise and supporting distribution capabilities to commercialize vosaroxin in North America, and potentially in Europe, which will be expensive and time consuming. Any failure or delay in the development of our internal or subcontracted 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 in certain territories as part of the commercialization of 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.

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, biostatistics, legal 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 licensees or 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 licensees or 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, Millennium, or potential future licensees or collaboration partners, if any, are conducting or may conduct product development efforts within the disease area that is the subject of a license or collaboration with our company. In current or potential future licenses or 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 licenses or collaborations. Our licensees or 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 licenses or collaborations. Competing products, either developed by our licensees or collaboration partners or to which our licensees or collaboration partners have rights, may result in their withdrawal of support for a product candidate covered by the license or collaboration agreement.

If one or more of our current or potential future licensees or collaboration partners, if any, were to breach or terminate their license or 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 licensees or 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 licenses or 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.

Raising funds through lending arrangements or revenue participation agreements may restrict our operations or produce other adverse results.

Our loan and security agreement, or the Loan Agreement, with Oxford Finance LLC, Silicon Valley Bank and Horizon Technology Finance Corporation, or collectively, the Lenders, which we entered into on October 18, 2011, contains a variety of affirmative and negative covenants, including required financial reporting, limitations on certain dispositions of assets, limitations on the incurrence of additional debt and other requirements. To secure our performance of our obligations under this Loan Agreement, on October 18, 2011, we granted a perfected first priority security interest in substantially all of our assets, other than intellectual property assets, to the Lenders. Additionally, following the purchase of the revenue participation right by RPI on September 18, 2012, we granted both the Lenders and RPI a security interest in certain of our assets, including our intellectual property related to vosaroxin, which may only be perfected following first product approval in any country or territory. The Lenders will retain a senior position to RPI's security interest for so long as any indebtedness under the Loan Agreement remains outstanding. Our failure to comply with the covenants in the Loan Agreement, the occurrence of a material impairment in our prospect of repayment or in the perfection or priority of the Lender's lien on our assets, as determined by the Lenders, or the occurrence of certain other specified events could result in an event of default that, if not cured or waived, could result in the acceleration of all or a substantial portion of our debt, potential foreclosure on our assets and other adverse results.

In addition, following the purchase of the revenue participation right by RPI, we are required to pay RPI a specified percentage of any net sales of vosaroxin. If we fail to make timely payments due to RPI under the Royalty Agreement, RPI may require us to repurchase the revenue participation right. As collateral for these payments, we granted RPI a security interest in certain of our assets, including our intellectual property related to vosaroxin, as detailed above.

Economic conditions may make it costly and difficult to raise additional capital.

Recent volatility in the U.S. stock market and reduced credit availability may make investors unwilling to buy certain corporate stocks and bonds. If economic conditions affect the capital markets, our ability to raise capital via our existing controlled equity facility, new equity or debt financing arrangements, or otherwise, may be adversely affected.

We are exposed to risks related to foreign currency exchange rates and European sovereign debt.

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 which occurred 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 have and may continue to 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.

In addition, the recent sovereign debt crisis concerning certain European countries and related European financial restructuring efforts has and may continue to cause the value of the Euro to deteriorate. Such deterioration could adversely impact any investments we hold that are denominated in Euros. Rating agency downgrades on European sovereign debt and any potential default of European government issuers further contribute to this uncertainty. Should governments default on their obligations, we may experience loss of principal on any investments in European sovereign debt.

Our facilities are located near known earthquake fault zones, and the occurrence of an earthquake or other catastrophic disaster, or interruption by man-made problems such as network security breaches, viruses or terrorism, 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. Despite the implementation of network security measures, our networks also may be vulnerable to computer viruses, break-ins and similar disruptions. We rely on information technology systems to operate our business and to communicate among our workforce and with third parties. If any disruption were to occur, whether caused by a natural disaster or by manmade problems, 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 present or potential future collaboration or licensing partners, if any, are permitted to market our product candidates in the United States until we receive approval of a new drug application, or 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. 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, the VALOR trial failed to meet its primary endpoint, and the FDA may require us to conduct additional clinical trials before or after any approval is granted of vosaroxin for the treatment of AML.

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 the 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, Phase 2 and VALOR 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 either directly or through a potential future collaboration partner, if any. In order to market vosaroxin in the European Union, Canada and many other foreign jurisdictions, we or a potential future collaboration partner must obtain separate regulatory approvals. We have, and potential future collaboration partners may 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 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 or a potential future collaboration partner may not obtain foreign regulatory approvals on a timely basis, if at all. We or a potential future collaboration partner 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.

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 either directly or through one or more potential future collaboration partners. If we or a potential future collaboration partner obtain approval in one or more foreign jurisdictions, we or the potential future collaboration partner 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 or a potential future collaboration partner 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 2014, our common stock traded as low as $1.00 and as high as $8.46. 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, including investigator-sponsored trials;
- announcements of additional FDA requirements for a regulatory path for vosaroxin or 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;
- failure to maintain compliance with the covenants in the Loan Agreement;
- 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 arrangements with Biogen Idec, Millennium or RPI;
- 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.

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.

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. In addition, under the terms of our Loan Agreement with the Lenders, we are precluded from paying cash dividends without the prior written consent of the Lenders. 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.

The ownership of our capital stock is concentrated, and your interests may conflict with the interests of our existing stockholders.

Our executive officers and directors together with their affiliates beneficially owned approximately 19% of our outstanding capital stock as of December 31, 2014, 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 an 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.

ITEM 1B. *UNRESOLVED STAFF COMMENTS*

None.

ITEM 2. *PROPERTIES*

Our corporate headquarters is currently located at 395 Oyster Point Boulevard in South San Francisco, California. In January 2014, a lease for 15,378 square feet of office space at this location was entered into with an expiration date of April 30, 2015. In June 2014, the lease was amended to extend the expiration date to June 30, 2015, and to add 6,105 square feet of additional office space within the same building. In January 2015, the lease was further amended to extend the expiration date to December 31, 2015. We believe these facilities are adequate for our needs in 2015.

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. *MINE SAFETY DISCLOSURES*

Not applicable.

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 Stock Market under the symbol "SNSS." The following table sets forth the range of the high and low sales prices by quarter, as reported by NASDAQ.

Year-Ended December 31, 2013	High	Low
First Quarter	$ 6.54	$ 3.92
Second Quarter	$ 6.00	$ 4.71
Third Quarter	$ 6.13	$ 4.52
Fourth Quarter	$ 5.38	$ 4.53

Year-Ended December 31, 2014	High	Low
First Quarter	$ 7.49	$ 3.84
Second Quarter	$ 7.24	$ 4.53
Third Quarter	$ 8.46	$ 5.46
Fourth Quarter	$ 7.15	$ 1.00

As of February 27, 2015, there were approximately 148 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 February 27, 2015, the last sale price reported on The NASDAQ Stock Market for our common stock was $2.22 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. In addition, under the terms of our loan and security agreement with Oxford Finance LLC, Silicon Valley Bank and Horizon Technology Finance Corporation, we are precluded from paying cash dividends without the prior written consent of the lenders.

Recent Sales of Unregistered Securities

None.

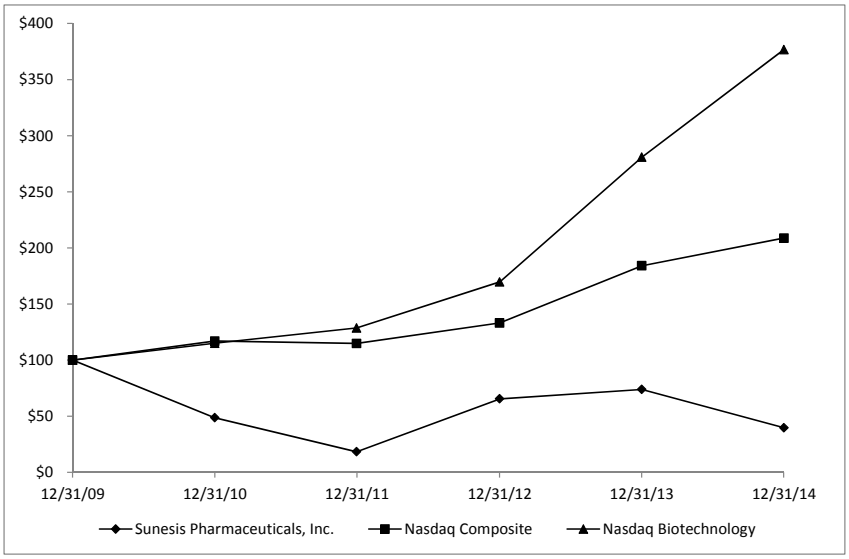
Stock Performance Graph

The following stock performance graph compares the cumulative total return to security holders of our common shares with the comparable cumulative returns of the NASDAQ Composite Index and the NASDAQ Biotechnology Index. The graph assumes the investment of $100 on December 31, 2009 and the reinvestment of all dividends, if any. Points on the graph represent the performance as of the last business day of each of the fiscal years indicated.

The following performance graph is not "soliciting material," is not deemed filed with the SEC and is not to be incorporated by reference in any filing by us under the Securities Act of 1933, as amended, or the Securities Act, or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing. The stock price performance shown on the graph is not necessarily indicative of future price performance.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among Sunesis Pharmaceuticals, Inc., the NASDAQ Composite Index, and the NASDAQ Biotechnology Index



* $100 invested on December 31, 2009 in stock or index, including reinvestment of any dividends.

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. The historical results presented below are not necessarily indicative of future results.

	Year Ended December 31,				
Consolidated Statements of Operations:	**2014**	**2013**	**2012**	**2011**	**2010**
	(In thousands, except per share amounts)				
Revenue:					
Collaboration revenue	$ —	$ —	$ —	$ —	$ 27
License and other revenue	5,734	7,956	3,754	5,000	6
Total revenues	5,734	7,956	3,754	5,000	33
Operating expenses:					
Research and development	27,665	28,891	29,185	22,563	14,433
General and administrative	23,112	10,838	9,175	8,303	7,005
Total operating expenses	50,777	39,729	38,360	30,866	21,438
Loss from operations	(45,043)	(31,773)	(34,606)	(25,866)	(21,405)
Interest expense	(1,719)	(2,917)	(1,855)	(259)	—
Other income (expense), net(1)	3,760	92	(7,490)	5,984	(3,182)
Net loss	$ (43,002)	$ (34,598)	$ (43,951)	$ (20,141)	$ (24,587)
Basic and diluted loss per common share:					
Net loss:					
Basic	$ (43,002)	$ (34,598)	$ (43,951)	$ (20,141)	$ (24,587)
Diluted	$ (46,894)	$ (34,598)	$ (43,951)	$ (20,141)	$ (24,587)
Shares used in computing net loss per common share:					
Basic	60,057	52,249	48,146	46,412	24,860
Diluted	61,510	52,249	48,146	46,412	24,860
Net loss per common share:					
Basic	$ (0.72)	$ (0.66)	$ (0.91)	$ (0.43)	$ (0.99)
Diluted	$ (0.76)	$ (0.66)	$ (0.91)	$ (0.43)	$ (0.99)

(1) During 2014, 2013, 2012, 2011 and 2010, we recorded net non-cash credits (charges) of $3.9 million, $0.1 million, $(7.5) million, $5.9 million and $(3.7) million, respectively, related to the revaluation of the liability for warrants issued in connection with the underwritten public offering of our common stock in October 2010 (see Note 10 of the accompanying consolidated financial statements).

	As of December 31,				
Consolidated Balance Sheet Data:	**2014**	**2013**	**2012**	**2011**	**2010**
			(In thousands)		
Cash, cash equivalents and marketable securities	$ 42,981	$ 39,293	$ 71,227	$ 44,115	$ 53,396
Working capital	16,323	6,520	41,191	37,282	42,118
Total assets	44,246	40,525	73,017	45,869	54,858
Non-current portion of deferred revenue	2,563	3,712	11,668	—	—
Current portion of notes payable	9,257	9,018	6,610	—	—
Non-current portion of notes payable	—	9,025	17,651	9,453	—
Common stock and additional paid-in capital	536,506	473,514	457,016	429,147	423,267
Accumulated deficit	(522,697)	(479,695)	(445,097)	(401,146)	(381,005)
Total stockholders' equity (deficit)	13,802	(6,184)	11,957	28,020	42,247

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, 2014 and results of operations for the year ended December 31, 2014 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, Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and the Private Securities Litigation Reform Act of 1995, which 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 regulatory plans to file a marketing authorization application with the European Medicines Agency, our preliminary analysis, assessment and conclusions of the results of the VALOR trial, and the commercial potential of vosaroxin, 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 our pipeline of new oncology therapeutics for the potential treatment of solid and hematologic cancers. Our most advanced program is QINPREZO™ (vosaroxin), our product candidate for the potential treatment of acute myeloid leukemia, or AML. In October 2014, we announced the results of a Phase 3, multi-national, randomized, double-blind, placebo-controlled trial of vosaroxin in combination with cytarabine in patients with relapsed or refractory AML, or the VALOR trial. The VALOR trial, which enrolled 711 adult patients, was 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, and was conducted at 124 study sites in the U.S., Canada, Europe, South Korea, Australia and New Zealand. Detailed results of the VALOR trial were presented in the "Late Breaking Abstracts" session of the American Society of Hematology (ASH) Annual Meeting in December 2014.

Patients treated with vosaroxin achieved increased overall survival compared to those treated with placebo (7.5 months vs 6.1 months, HR=0.87), the primary endpoint, but this difference did not achieve statistical significance (p=0.06). The complete remission (CR) rate, the sole secondary efficacy endpoint in the trial, did demonstrate a significant difference for the vosaroxin combination arm (30.1% vs 16.3%, $p < 0.0001$).

In a pre-planned analysis accounting for the stratification factors at randomization, a significant improvement in overall survival was demonstrated (HR=0.83, p=0.02). The pre-planned analysis of all treatment strata included the following difficult to treat patient categories: over 60 years old (7.1 months vs 5.0 months, HR=0.75, p=0.003, n=451), refractory disease (6.7 months vs 5.0 months, HR=0.87, p=0.23, n=301), and early relapsed disease (6.7 months vs 5.2 months, HR=0.77, p=0.04, n=256). Outcomes in patients under 60 years old or with late relapsed disease were comparable between treatment arms, with no improvement in overall survival. Across all strata, the CR and Composite CR (CR+CRp+CRi) rates were higher in the vosaroxin combination arm.

Given the complexity of interpreting the impact of transplantation therapy, a predefined analysis of overall survival censoring for hematopoietic stem cell transplantation was planned. In this analysis, patients receiving the vosaroxin combination had a median overall survival of 6.7 months versus 5.3 months for patients receiving placebo and cytarabine (HR=0.81, p=0.02).

Regarding drug safety, Grade 3 or higher non-hematologic adverse events that were more common in the vosaroxin combination arm were gastrointestinal and infection-related toxicities, consistent with those observed in our previous clinical trials. The rate of serious adverse events was 55.5% in the vosaroxin combination arm compared to 35.7% in the placebo and cytarabine arm. 30-day

and 60-day all-cause mortality were comparable between the trial arms (7.9% versus 6.6% and 19.7% versus 19.4%, for the vosaroxin combination versus placebo and cytarabine, respectively).

Based on the results of the VALOR trial, we have submitted a letter of intent to the European Medicines Agency, or EMA, describing our intention to file a marketing authorization application, or MAA, for marketing authorization of vosaroxin plus cytarabine for the treatment of relapsed or refractory AML. We plan to meet with European regulatory authorities in preparation for an MAA filing in the second half of 2015.We are also currently engaged in discussions with the U.S. Food and Drug Administration, or FDA, to determine a potential regulatory path forward in the United States.

In the second half of 2013, we announced the initiation of three Phase 1/2 investigator-sponsored trials of vosaroxin, either as a standalone therapy or in combination with approved compounds, in various indications of AML and high-risk myelodysplastic syndrome, or MDS. The trials are being conducted at the University of Texas MD Anderson Cancer Center, or MDACC, Weill Cornell Medical College and New York-Presbyterian Hospital, and the Washington University School of Medicine.

In December 2014, updated results from the ongoing Phase 1b/2 MDACC-sponsored trial of vosaroxin in combination with decitabine in older patients with previously untreated AML and high-risk MDS were presented at the ASH Annual Meeting. This trial is expected to enroll up to a combined total of approximately 70 patients.

In January 2014, we announced the expansion of our oncology franchise through separate global licensing agreements for two preclinical kinase inhibitor programs. The first agreement, with Biogen Idec, is for global commercial rights to SNS-062, a selective non-covalently binding oral inhibitor of BTK. We are currently conducting IND-enabling studies for SNS-062, with a view to filing an IND application with the FDA.

The second agreement, with Millennium, is for global commercial rights to several potential first-in class, pre-clinical inhibitors of the novel target PDK1. In 2014, we selected two PDK1 inhibitors, SNS-229 and SNS-510, of which we plan to take at least one into IND-enabling absorption, distribution, metabolism and excretion, or ADME, and safety studies in 2015.

Both BTK and PDK1 programs were originally developed under a research collaboration agreement between Biogen Idec and Sunesis. in 2011, the PDK1 program was purchased by and exclusively licensed to Millennium along with the more advanced program, MLN2480, a pan-RAF inhibitor currently in the maximum tolerated dose cohort expansion stage of a Millennium Phase 1, multicenter dose escalation study. We currently expect SNS-062 and the PDK1 inhibitors will be developed exclusively by Sunesis.

Recent Financial History

Equity Financing Agreements

In March 2014, we completed an underwritten offering of 4,650,000 shares of common stock, each with two accompanying warrants to purchase one share of our common stock at exercise prices of $8.50 (Series A) and $12.00 (Series B) per share, respectively. The purchase price for each share of common stock and two accompanying warrants was $9.25. Gross proceeds from the sale were $43.0 million and net proceeds were $40.0 million. The Series A warrants expired unexercised in December 2014. The Series B warrants will expire on or before the later of 30 days following the PDUFA date of the VALOR trial, if any, and September 4, 2015, but in no event later than March 4, 2016.

In August 2011, we entered into a Controlled Equity Offering^{SM} sales agreement, or the Sales Agreement, with Cantor Fitzgerald & Co., or Cantor, as agent and/or principal, pursuant to which we could issue and sell shares of our common stock having an aggregate gross sales price of up to $20.0 million. In April 2013, the Sales Agreement was amended to provide for an increase of $30.0 million in the aggregate gross sales price under the Sales Agreement. We will pay Cantor a commission of 3.0% of the gross proceeds from any common stock sold through the Sales Agreement, as amended.

During 2014, we sold an aggregate of 5,113,876 shares of common stock under the Sales Agreement, as amended, at an average price of approximately $2.88 per share for gross proceeds of $14.7 million and net proceeds of $14.3 million, after deducting Cantor's commission. In January and February 2015, the Company sold an aggregate of 1,579,124 shares of common stock under the Sales Agreement, as amended, at an average price of approximately $2.75 per share for gross proceeds of $4.3 million and net proceeds of $4.2 million, after deducting Cantor's commission. As of February 27, 2015, $2.5 million of common stock remained available to be sold under the Sales Agreement, as amended, subject to certain conditions as specified in the agreement.

Loan Agreement

In October 2011, we entered into the Loan and Security Agreement, or the Loan Agreement, with Oxford Finance LLC, Silicon Valley Bank and Horizon Technology Finance Corporation, or collectively, the Lenders, and received the first tranche of $10.0

million from the Lenders. In September 2012, following the recommendation by the Data Safety Monitoring Board, or DSMB, to increase the sample size for the VALOR trial, we drew the second tranche of $15.0 million from the Lenders. Payments under both tranches were interest-only until February 1, 2013, with the following 32 equal monthly payments of principal and interest being paid monthly in arrears through the scheduled maturity date of October 1, 2015. On February 27, 2015, the Loan Agreement was amended to provide for an interest-only period from March 1, 2015 to February 1, 2016, such that the eight remaining principal payments will be deferred and re-amortized over the period from March 1, 2016 to October 1, 2016.

Capital Requirements

We have incurred significant losses in each year since our inception. As of December 31, 2014, we had cash, cash equivalents and marketable securities of $43.0 million and an accumulated deficit of $522.7 million. We expect to continue to incur significant losses for the foreseeable future as we continue the development process and seek regulatory approvals for vosaroxin.

We will need to raise substantial additional capital to complete the development and potential commercialization of vosaroxin, and expect to finance our future cash needs primarily through equity issuances, debt arrangements, one or more possible licenses, collaborations or other similar arrangements 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 required funding on acceptable terms or at all, 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 or our other development programs, sell unsecured assets, or a combination of the above, or be forced to delay or reduce the scope of our vosaroxin development program, potentially including any regulatory filings related to 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 2 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 Financing

In October 2010, we completed an underwritten offering, or 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 at each period end, with the change in fair value recorded to other income (expense), net in the statements of operations and comprehensive (loss) income. 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. 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.

Accounting for Royalty Agreement

In March 2012, we entered into the Royalty Agreement with RPI, and in September 2012, as a result of the recommendation by the DSMB to increase the sample size for the VALOR trial, RPI made a $25.0 million cash payment to us in exchange for a 6.75% royalty on any future net sales of vosaroxin. In conjunction with the Royalty Agreement, we issued two five-year warrants to RPI, each to purchase 1,000,000 shares of our common stock.

The payment of $25.0 million by RPI is non-refundable, and no revenue participation right payments will be made unless vosaroxin is approved by regulatory authorities and subsequently commercialized. Accordingly, the payment, less a portion representing the fair value of the warrants of $3.1 million, is being accounted for as consideration for our commitment to use commercially reasonable efforts to commercialize vosaroxin. The net amount of $21.9 million has therefore been classified as deferred revenue and is being amortized to revenue over the related estimated performance period, and the fair value of the warrants has been recorded to additional paid-in capital. The Black-Scholes model was selected as the most appropriate method to estimate the fair value of the warrants. The Black-Scholes model requires several subjective inputs such as expected term and share price volatility, which require significant analysis and judgment to develop.

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. 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, non-refundable fees are deferred and recognized ratably over the projected performance period.

Milestone payments from license or collaboration agreements which are substantive and at risk at the time the agreement is executed are recognized upon completion of the applicable milestone event. Royalty revenues, if any, will be recognized based on reported product sales by third-party licensees. Research funding from any future agreement will be recognized as the related research services are performed.

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 expense. Costs incurred for setting up clinical trial sites for participation in trials are generally non-refundable, and are expensed as incurred, 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 significant to date.

Stock-Based Compensation

We grant options to purchase common stock to our employees, directors and consultants under our equity incentive plans. Under our employee stock purchase plan, eligible employees can also purchase shares of our common stock at 85% of the lower of the fair market value of our 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.

We value these share-based awards using the Black-Scholes option valuation model, or 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 our 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, which require significant analysis and judgment to develop.

Overview of Revenues

We have not generated any revenue from the sale of commercial products, and do not anticipate product sales until at least 2016, if at all. Over the past three years, we have generated revenue primarily through the Royalty Agreement with RPI, and the license and collaboration agreement with Biogen Idec. We cannot predict whether we will receive any additional event-based payments or royalties from these agreements, as amended, in the foreseeable future, or at all.

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 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 are currently focused on the development of vosaroxin for the treatment of AML. Based on results of translational research, our own and investigator-sponsored trials, 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, which will affect our research and development expense. If we proceed to commercialization following the approval of either an MAA filing with the EMA or a New Drug Application, or NDA, filing with the FDA, research and development costs may increase in the future.

As of December 31, 2014, we had incurred $180.0 million of expenses in the development of vosaroxin since it was licensed from Sumitomo Dainippon Pharma Co., Ltd., or Sumitomo, in October 2003. We may continue to incur significant expenses related to the development of vosaroxin in future years. Due to the above uncertainties and other risks inherent in the development process, we are unable to estimate the costs we will incur in the vosaroxin development program in the future.

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.

In 2014 we incurred a total of $3.7 million of development expenses associated with advancing the SNS-062 and PDK1 inhibitor programs, and anticipate continuing expenditures on these programs in 2015 and beyond. Additionally, under the Millennium Agreement, we have the right to participate in co-development and co-promotion activities for the related product candidates, including MLN2480, a pan-RAF inhibitor currently in the maximum tolerated dose cohort expansion stage of a Millennium Phase 1, multicenter dose escalation study. If we were to exercise our option on this or other product candidates, our research and development expense would increase significantly.

General and administrative expense. General and administrative expense consists primarily of personnel costs for the related employees, including non-cash stock-based compensation; professional service costs, including fees paid to outside legal advisors, marketing consultants and our independent registered public accounting firm; facilities expenses; and other administrative costs. If we proceed to commercialization in either Europe or the United States following our regulatory interactions with the EMA and FDA, we anticipate general and administrative expenses to increase in the future, including additional costs related to selling and marketing.

Results of Operations

Years Ended December 31, 2014 and 2013

Revenue. Total revenue was $5.7 million in 2014 as compared to $8.0 million in 2013, primarily due to deferred revenue recognized related to the Royalty Agreement with RPI in each period. We expect deferred revenue recognized under this arrangement to be lower in 2015 than in 2014 due to the change in the end date of the estimated performance period through which the balance of deferred revenue will be amortized from June 30, 2015 to September 30, 2016.

Research and development expense. Research and development expense was $27.7 million in 2014 as compared to $28.9 million in 2013, primarily relating to the vosaroxin development program in each year. The decrease of $1.2 million in 2014 was primarily due to a decrease of $7.1 million in clinical trial expenses, partially offset by increases of $2.1 million in personnel costs (including an increase of $0.6 million in stock-based compensation expense), $1.8 million in other outside services and consulting costs, $1.6 million in drug manufacturing costs, and $0.4 million in other development costs.

General and administrative expense. General and administrative expense was $23.1 million in 2014 as compared to $10.8 million in 2013. The increase of $12.3 million in 2014 was primarily due to increases of $6.7 million in professional services costs and $5.5 million in personnel costs (including an increase of $1.7 million in stock-based compensation expense).

Interest expense. Interest expense was $1.7 million in 2014 as compared to $2.9 million in 2013. The decrease in 2014 was due to the reduced principal balance outstanding on notes payable to the Lenders under the Loan Agreement.

Other income (expense), net. Net other income was $3.8 million in 2014 as compared to $0.1 million in 2013. The 2014 amount was primarily comprised of a net non-cash credit for the revaluation of warrants issued in the 2010 Offering.

Years Ended December 31, 2013 and 2012

Revenue. Total revenue was $8.0 million in 2013 as compared to $3.8 million in 2012. Revenue in 2013 was due to deferred revenue recognized related to the Royalty Agreement with RPI. Revenue in 2012 was comprised of $1.5 million received from Biogen Idec for the advancement of pre-clinical work under the Biogen Idec 1st ARCA and $2.3 million of deferred revenue recognized related to the Royalty Agreement with RPI.

Research and development expense. Research and development expense was $28.9 million in 2013 as compared to $29.2 million in 2012, substantially all relating to the vosaroxin development program in each year. The decrease of $0.3 million in 2013 was primarily due to decreases of $1.1 million in drug manufacturing costs and $1.3 million in other outside services and consulting costs, partially offset by increases of $1.2 million in personnel costs and $0.9 million in clinical trial expenses.

General and administrative expense. General and administrative expense was $10.8 million in 2013 as compared to $9.2 million in 2012. The increase of $1.6 million in 2013 was primarily due to increases of $1.0 million in professional services costs and $0.7 million in personnel costs.

Interest expense. Interest expense was $2.9 million in 2013 as compared to $1.9 million in 2012. The increase in 2013 was due to the additional interest expense related to the draw-down of the $15.0 million second tranche from the Lenders under the Loan Agreement in September 2012.

Other income (expense), net. Net other income was $0.1 million in 2013 as compared to net other expense of $7.5 million in 2012. The 2012 amount was primarily comprised of a net non-cash charge for the revaluation of warrants issued in the 2010 Offering.

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 in other income (expense), net in the statements of operations and comprehensive loss.

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, 2014, we had net operating loss carry-forwards for federal and state income tax purposes of $364.5 million and $235.8 million, respectively. We also had federal and state research and development tax credit carry-forwards of $8.1 million and $7.2 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 2015. 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 and other equity instruments, debt financings, the receipt of funds from our collaboration partners, the sale of revenue participation rights, and research grants.

Our cash, cash equivalents and marketable securities totaled $43.0 million as of December 31, 2014, as compared to $39.3 million as of December 31, 2013. The increase of $3.7 million was primarily due to net proceeds of $40.0 million from the underwritten offering and $14.3 million from sales of our common stock through the Sales Agreement with Cantor, both as described below, and $2.0 million from the exercise of warrants, stock options and stock purchase rights, partially offset by $43.2 million of net cash used in operating activities and $9.4 million of principal payments against notes payable.

In March 2014, we completed an underwritten offering of 4,650,000 shares of common stock, each with two accompanying warrants to purchase one share of our common stock, at exercise prices of $8.50 (Series A) and $12.00 (Series B) per share, respectively. The purchase price for each share of common stock and two accompanying warrants was $9.25. Gross proceeds from the sale were $43.0 million and net proceeds were $40.0 million, after deducting the underwriting discount and offering expenses. The warrants are only exercisable on a gross exercise basis. The Series A warrants expired on December 4, 2014. The Series B warrants will expire on or before the later of 30 days following the PDUFA date of the VALOR trial, if any, and September 4, 2015, but in no event later than March 4, 2016.

During 2014, we sold an aggregate of 5,113,876 shares of common stock under the Sales Agreement, as amended, at an average price of approximately $2.88 per share for proceeds of $14.7 million and net proceeds of $14.3 million, after deducting Cantor's commission. As of December 31, 2014, $6.8 million of common stock remained available to be sold under this facility, subject to certain conditions as specified in the agreement.

Cash Flows

Net cash used in operating activities was $43.2 million in 2014, as compared to $37.4 million in 2013 and $10.6 million in 2012. Net cash used in 2014 resulted primarily from the net loss of $43.0 million and changes in operating assets and liabilities of $2.9 million (including $5.7 million related to recognition of deferred revenue under the Royalty Agreement), partially offset by net adjustments for non-cash items of $2.7 million (including expenses of $6.2 million for stock-based compensation and a $3.9 million credit for the revaluation of warrants issued in the 2010 Offering). Net cash used in 2013 resulted primarily from the net loss of $34.6 million and changes in operating assets and liabilities of $7.1 million (including $8.0 million related to recognition of deferred revenue under the Royalty Agreement), partially offset by net adjustments for non-cash items of $4.3 million (including expenses of $3.9 million for stock-based compensation). Net cash used in 2012 resulted primarily from the net loss of $44.0 million, partially offset by net adjustments for non-cash items of $10.6 million (including a charge of $7.5 million for the revaluation of warrants issued in the 2010 Offering and $2.7 million of stock-based compensation), and changes in operating assets and liabilities of $22.7 million (including a net increase in deferred revenue of $19.6 million related to the receipt of the $25.0 million payment from RPI, and an increase of $3.1 million in accrued clinical expenses related to the VALOR trial).

Net cash provided by investing activities was $3.3 million in 2014, as compared to $32.2 million provided by investing activities in 2013 and $21.4 million used in investing activities in 2012. Net cash provided in 2014 and 2013 consisted primarily of proceeds from maturities of marketable securities, partially offset by purchases of marketable securities. Net cash used in 2012 consisted primarily of purchases of marketable securities, partially offset by proceeds from maturities of marketable securities.

Net cash provided by financing activities was $46.9 million in 2014, as compared to $5.4 million in 2013 and $37.6 million in 2012. Net cash provided in 2014 resulted primarily from net proceeds of $40.0 million from the underwritten offering, $14.3 million from sales of our common stock through Cantor and $2.0 million from the exercise of warrants, stock options and stock purchase rights, partially offset by $9.4 million of principal payments against notes payable. Net cash provided in 2013 resulted primarily from net proceeds of $12.0 million from sales of our common stock through Cantor and $0.6 million from the exercise of warrants, stock options and stock purchase rights, partially offset by $7.2 million of principal payments against notes payable. Net cash provided in 2012 included net proceeds from the draw-down of the second tranche loan of $15.0 million from the Lenders, $17.6 million from sales of our common stock through Cantor, $3.1 million of the $25.0 million payment allocated to the fair value of warrants issued to RPI, and $1.9 million from the exercise of warrants, stock options and stock purchase rights.

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, EMA, or similar regulatory agencies in other countries, and has been successfully commercialized, if at all. We will 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;
- the need for additional or expanded clinical trials;
- the timing, 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, EMA, or other regulatory approvals;

- the extent of our other development activities, including our in-license agreements;
- 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, if any, of supporting our arrangements with Biogen Idec and Millennium.

We believe that we currently have the resources to fund our operations through the first quarter of 2016. We will need to raise substantial additional capital to complete the development and potential commercialization of vosaroxin. 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 our future cash needs primarily through equity issuances, debt arrangements, one or more possible licenses, collaborations or other similar arrangements with respect to development and/or commercialization rights to vosaroxin, or a combination of the above.

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 any regulatory filings related to 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

The following table summarizes our long-term contractual obligations as of December 31, 2014 (in thousands):

	Payments Due by Period				
	Total	Less Than 1 Year	1-3 Years	3-5 Years	After 5 Years
Debt obligations(1)	$ 9,752	$ 9,752	$ —	$ —	$ —
Operating lease obligations(2)	$ 247	$ 247	$ —	$ —	$ —

(1) Includes interest and final payment of $937,500 (3.75%) of the aggregate amount drawn. Upon the occurrence of an event of default, as defined in the Loan Agreement, and following any applicable cure periods, a default interest rate of an additional 5% may be applied to the outstanding loan balances, and the Lenders may declare all outstanding obligations immediately due and payable and take such other actions as set forth in the Loan Agreement. On February 27, 2015, the Loan Agreement was modified such that repayments are interest-only from March 1, 2015 to February 1, 2016, followed by eight equal monthly payments of principal and interest through the new maturity date of October 1, 2016. In addition, the final payment will be increased from $937,500 (3.75%) to $1,162,500 (4.65%) of the aggregate amount drawn, and will become due on the new maturity date, or such earlier date specified in the Loan Agreement. If we repay all or a portion of the loan prior to February 29, 2016 as part of a refinancing with another lender, a prepayment fee equal to 2% of the then outstanding principal balance will be due to the Lenders.

(2) Operating lease obligations relate solely to the leasing of office space in a building at 395 Oyster Point Boulevard in South San Francisco, California, which is currently our corporate headquarters. In January 2014, a lease for 15,378 square feet was entered into with an expiration date of April 30, 2015. In June 2014, the lease was amended to extend the expiration date to June 30, 2015, and to add 6,105 square feet of additional office space within the same building. In January 2015, the lease was further amended to extend the expiration date to December 31, 2015.

The above amounts exclude potential payments under:

- our 2003 license agreement with Sumitomo, pursuant to which 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 Sumitomo. We are also required to make royalty payments to Sumitomo in the event that vosaroxin is commercialized.
- our Royalty Agreement with RPI, pursuant to which we are required to make certain revenue participation payments in the event that vosaroxin is commercialized.
- our December 2013 second amended and restated collaboration agreement with Biogen Idec and our January 2014 amended license agreement with Millennium, pursuant to which we are required to make certain milestone and royalty payments.

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*

Interest Rate and Market Risk

As of December 31, 2014 and 2013, we had $43.0 million and $39.3 million, respectively, in cash, cash equivalents and marketable securities. The securities in our investment portfolio are not leveraged and are classified as available-for-sale, which, due to their short-term nature, are subject to minimal interest rate risk. We currently do not hedge our interest rate risk exposure. Because of the short-term maturities of our investments, we do not believe that a change in market rates would have a significant impact on the value of our investment portfolio.

The primary objective of our investment activities is to preserve principal while at the same time maximizing the income we receive from our investments without significantly increasing risk. To achieve this objective, we maintain our portfolio of cash equivalents and short-term and long-term investments in a variety of securities, including money market funds and U.S. and European government obligations and corporate debt securities. These securities are classified as available for sale and consequently are recorded on the balance sheet at fair value with unrealized gains or losses reported as a separate component of accumulated other comprehensive (loss) income. Substantially all investments mature within approximately one year from the date of purchase. Our holdings of the securities of any one issuer, except obligations of the U.S. Treasury or U.S. Treasury guaranteed securities, do not exceed 10% of the portfolio. If interest rates rise, the market value of our investments may decline, which could result in a realized loss if we are forced to sell an investment before its scheduled maturity. We do not utilize derivative financial instruments to manage our interest rate risks.

The tables below present the original principal amounts and weighted-average interest rates by year of maturity for our investment portfolio as of December 31 of each year, by effective maturity (in thousands, except percentages):

	Expected Maturity		Total Fair Value as of December 31, 2014
	0-3 months	Over 3 months	
Available-for-sale securities	$ 17,260	$ 13,067	$ 30,327
Average interest rate	0.2%	0.3%	

	Expected Maturity		Total Fair Value as of December 31, 2013
	0-3 months	Over 3 months	
Available-for-sale securities	$ 20,387	$ 10,368	$ 30,755
Average interest rate	0.2%	0.3%	

Foreign Currency Exchange Rate Risk

We consider our direct exposure to foreign exchange rate fluctuations to be minimal. Invoices for certain services provided to us are denominated in foreign currencies, including the euro and British pound, among others. Therefore, we are exposed to adverse movements in the related foreign currency exchange rates. To manage this risk, we may purchase certain European currencies or highly-rated investments denominated in those currencies, subject to similar criteria as for other investments allowed by our investment policy. We do not make these purchases for trading or speculative purposes, and there is no guarantee that the related gains and losses will substantially offset each other. As of December 31, 2014 and 2013, we held investments denominated in Euros with an aggregate fair value of nil and $2.6 million, respectively. The balances are recorded at their fair value based on the current exchange rate as of each balance sheet date. The resulting exchange gains or losses and those from amounts payable for services originally denominated in foreign currencies are recorded in other income (expense), net in the statements of operations and comprehensive loss.

ITEM 8. ***FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA***

Index to Consolidated Financial Statements

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, 2014 and 2013, and the related consolidated statements of operations and comprehensive loss, stockholders' equity (deficit), and cash flows for each of the three years in the period ended December 31, 2014. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Sunesis Pharmaceuticals, Inc. at December 31, 2014 and 2013, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2014, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Sunesis Pharmaceuticals, Inc.'s internal control over financial reporting as of December 31, 2014, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated March 12, 2015 expressed an unqualified opinion thereon.

/s/ ERNST & YOUNG LLP

Redwood City, California
March 12, 2015

SUNESIS PHARMACEUTICALS, INC.

CONSOLIDATED BALANCE SHEETS
(In thousands, except per share amounts)

	December 31, 2014	December 31, 2013
ASSETS		
Current assets:		
Cash and cash equivalents	$ 22,186	$ 15,121
Marketable securities	20,795	24,172
Prepaids and other current assets	1,223	1,199
Total current assets	44,204	40,492
Property and equipment, net	42	23
Deposits and other assets	—	10
Total assets	$ 44,246	$ 40,525
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)		
Current liabilities:		
Accounts payable	$ 3,177	$ 953
Accrued clinical expense	3,112	4,750
Accrued compensation	2,287	1,719
Other accrued liabilities	3,087	1,645
Current portion of deferred revenue	3,418	7,956
Current portion of notes payable	9,257	9,018
Warrant liability	3,543	7,931
Total current liabilities	27,881	33,972
Non-current portion of deferred revenue	2,563	3,712
Non-current portion of notes payable	—	9,025
Commitments and contingencies (Note 9)		
Stockholders' equity (deficit):		
Common stock, $0.0001 par value; 400,000 shares authorized as of December 31, 2014; 66,102 and 54,344 shares issued and outstanding as of December 31, 2014 and 2013, respectively	7	5
Additional paid-in capital	536,499	473,509
Accumulated other comprehensive loss	(7)	(3)
Accumulated deficit	(522,697)	(479,695)
Total stockholders' equity (deficit)	13,802	(6,184)
Total liabilities and stockholders' equity (deficit)	$ 44,246	$ 40,525

See accompanying notes to consolidated financial statements.

SUNESIS PHARMACEUTICALS, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(In thousands, except per share amounts)

	Year Ended December 31,		
	2014	2013	2012
Revenue:			
License and other revenue	$ 5,734	$ 7,956	$ 3,754
Total revenues	5,734	7,956	3,754
Operating expenses:			
Research and development	27,665	28,891	29,185
General and administrative	23,112	10,838	9,175
Total operating expenses	50,777	39,729	38,360
Loss from operations	(45,043)	(31,773)	(34,606)
Interest expense	(1,719)	(2,917)	(1,855)
Other income (expense), net	3,760	92	(7,490)
Net loss	(43,002)	(34,598)	(43,951)
Unrealized (loss) gain on available-for-sale securities	(4)	(41)	19
Comprehensive loss	(43,006)	$ (34,639)	$ (43,932)
Basic and diluted loss per common share:			
Net loss:			
Basic	$ (43,002)	$ (34,598)	$ (43,951)
Diluted	$ (46,894)	$ (34,598)	$ (43,951)
Shares used in computing net loss per common share:			
Basic	60,057	52,249	48,146
Diluted	61,510	52,249	48,146
Net loss per common share:			
Basic	$ (0.72)	$ (0.66)	$ (0.91)
Diluted	$ (0.76)	$ (0.66)	$ (0.91)

See accompanying notes to consolidated financial statements.

SUNESIS PHARMACEUTICALS, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT)
(In thousands)

	Common Stock		Additional Paid-In	Accumulated Other Comprehensive (Loss)	Accumulated	Total Stock holders' (Deficit)
	Shares	Amount	Capital	Income	Deficit	Equity
Balance as of December 31, 2011	46,774	$ 5	$ 429,142	$ 19	$ (401,146)	$ 28,020
Issuance of $18,124 of common stock through controlled equity offering facilities, net of issuance costs of $504	3,714	—	17,620	—	—	17,620
Issuance of common stock pursuant to warrant exercises	801	—	3,130	—	—	3,130
Issuance of common stock pursuant to stock option exercises	146	—	330	—	—	330
Issuance of common stock under employee stock purchase plans	84	—	172	—	—	172
Issuance of common stock to employees	46	—	—	—	—	—
Issuance of warrants to purchase common stock	—	—	3,893	—	—	3,893
Stock-based compensation expenses—employees	—	—	2,402	—	—	2,402
Stock-based compensation expenses—non-employees	—	—	322	—	—	322
Net loss	—	—	—	—	(43,951)	(43,951)
Unrealized gain on available-for-sale securities	—	—	—	19	—	19
Balance as of December 31, 2012	51,565	5	457,011	38	(445,097)	11,957
Issuance of $12,357 of common stock through controlled equity offering facilities, net of issuance costs of $371	2,535	—	11,986	—	—	11,986
Issuance of common stock pursuant to warrant exercises	18	—	88	—	—	88
Issuance of common stock pursuant to stock option exercises	104	—	230	—	—	230
Issuance of common stock under employee stock purchase plans	97	—	309	—	—	309
Issuance of common stock to employees	25	—	—	—	—	—
Stock-based compensation expenses—employees	—	—	3,581	—	—	3,581
Stock-based compensation expenses—non-employees	—	—	304	—	—	304
Net loss	—	—	—	—	(34,598)	(34,598)
Unrealized loss on available-for-sale securities	—	—	—	(41)	—	(41)
Balance as of December 31, 2013	54,344	5	473,509	(3)	(479,695)	(6,184)
Issuance of $43,013 of common stock and warrants in underwritten offering, net of issuance costs of $2,989	4,650	1	40,023	—	—	40,024
Issuance of $14,734 of common stock through controlled equity offering facilities, net of issuance costs of $442	5,114	1	14,291	—	—	14,292
Issuance of common stock pursuant to warrant exercises	1,323	—	949	—	—	949
Issuance of common stock pursuant to stock option exercises	566	—	1,226	—	—	1,226
Issuance of common stock under employee stock purchase plans	99	—	282	—	—	282
Issuance of common stock to employees	6	—	—	—	—	—
Stock-based compensation expenses—employees	—	—	5,882	—	—	5,882
Stock-based compensation expenses—non-employees	—	—	337	—	—	337
Net loss	—	—	—	—	(43,002)	(43,002)
Unrealized loss on available-for-sale securities	—	—	—	(4)	—	(4)
Balance as of December 31, 2014	66,102	$ 7	$ 536,499	$ (7)	$ (522,697)	$ 13,802

See accompanying notes to consolidated financial statements.

SUNESIS PHARMACEUTICALS, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended December 31,		
	2014	2013	2012
Cash flows from operating activities			
Net loss	$ (43,002)	$ (34,598)	$ (43,951)
Adjustments to reconcile net loss to net cash used in operating activities:			
Stock-based compensation expense	6,219	3,885	2,724
Depreciation and amortization	29	20	31
Amortization of debt discount and debt issuance costs	367	621	400
(Decrease) increase in fair value of warrant liability	(3,892)	(96)	7,509
Foreign exchange gain on marketable securities	—	(142)	(82)
Gain on sale of property and equipment	—	—	(11)
Changes in operating assets and liabilities:			
Prepaids and other assets	(43)	489	(98)
Accounts payable	2,224	875	(580)
Accrued clinical expense	(1,638)	(699)	3,079
Accrued compensation	568	254	191
Other accrued liabilities	1,674	(76)	522
Deferred revenue	(5,687)	(7,956)	19,624
Net cash used in operating activities	(43,181)	(37,423)	(10,642)
Cash flows from investing activities			
Purchases of property and equipment	(48)	—	—
Proceeds from sale of property and equipment	—	—	11
Purchases of marketable securities	(42,463)	(26,894)	(67,608)
Proceeds from maturities of marketable securities	45,836	59,110	46,226
Net cash provided by (used in) investing activities	3,325	32,216	(21,371)
Cash flows from financing activities			
Proceeds from notes payable, net	—	—	14,982
Principal payments on notes payable	(9,356)	(7,182)	—
Proceeds from issuance of common stock and warrants in underwritten offering, net	40,024	—	—
Proceeds from issuance of common stock through controlled equity offering facilities, net	14,292	11,986	17,620
Fair value of warrants issued in connection with royalty agreement	—	—	3,122
Proceeds from exercise of warrants, stock options and stock purchase rights	1,961	584	1,918
Net cash provided by financing activities	46,921	5,388	37,642
Net increase (decrease) in cash and cash equivalents	7,065	181	5,629
Cash and cash equivalents at beginning of period	15,121	14,940	9,311
Cash and cash equivalents at end of period	$ 22,186	$ 15,121	$ 14,940
Supplemental disclosure of cash flow information			
Interest paid	$ 1,221	$ 2,006	$ 1,165
Supplemental disclosure of non-cash activities			
Transfer of fair value of exercised warrants to additional paid-in capital	$ 496	$ 43	$ 1,715
Fair value of warrants issued in connection with notes payable	$ —	$ —	$ 770
Cashless exercise of warrants	$ 9,337	$ —	$ 402

See accompanying notes to consolidated financial statements.

1. Company Overview

Description of Business

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 October 2014, the Company announced the results of a Phase 3, multi-national, randomized, double-blind, placebo-controlled, clinical trial of vosaroxin in combination with cytarabine in patients with relapsed or refractory acute myeloid leukemia (the "VALOR trial"). The trial did not meet its primary endpoint of demonstrating a statistically significant improvement in overall survival, but based upon the favorable results of other predefined analyses of the data, Sunesis plans to meet with European regulatory authorities in preparation for the filing of a marketing authorization application ("MAA") with the European Medicines Agency ("EMA") in the second half of 2015. The Company is also currently engaged in discussions with the U.S. Food and Drug Administration ("FDA") to determine a potential regulatory path forward in the United States.

Significant Risks and Uncertainties

The Company has incurred significant losses and negative cash flows from operations since its inception, and as of December 31, 2014, had cash, cash equivalents and marketable securities totaling $43.0 million and an accumulated deficit of $522.7 million.

The Company will need to raise substantial additional capital to pursue a regulatory strategy for the potential commercialization of QINPREZO™ (vosaroxin), its product candidate for the potential treatment of acute myeloid leukemia, and to continue the development of vosaroxin and the Company's other programs. The Company expects to finance its future cash needs primarily through equity issuances, debt arrangements, one or more possible licenses, collaborations or other similar arrangements with respect to development and/or commercialization rights to vosaroxin and its other development programs, or a combination of the above. However, the Company does not know whether additional funding will be available on acceptable terms, or at all. If the Company is unable to raise required funding on acceptable terms or at all, it 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 or our other development programs, sell unsecured assets, or a combination of the above, or be forced to delay or reduce the scope of our vosaroxin development program, potentially including any regulatory filings related to the VALOR trial, and/or limit or cease our operations.

Concentrations of Credit Risk

In accordance with its investment policy, the Company invests cash that is not currently being used for operational purposes. The policy allows for the purchase of low risk debt securities issued by: (a) the United States and certain European governments and government agencies, and (b) highly rated banks and corporations, denominated in U.S. dollars, Euros or British pounds, subject to certain concentration limits. The policy limits maturities of securities purchased to no longer than 24 months and the weighted average maturity of the portfolio to 12 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 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.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP").

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update No. 2014-09, *Revenue from Contracts with Customers* ("ASU 2014-09"), that will supersede most existing revenue recognition guidance under US GAAP. The core principle of the guidance is that an entity should recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. Entities can choose to apply the standard using either the full retrospective approach or a modified retrospective approach. Entities electing the full retrospective adoption will apply the standard to each period presented in the financial statements. This means that entities will have to apply the new guidance as if it had been in effect since the inception of all its contracts with customers presented in the financial statements. Entities that elect the modified retrospective approach will apply the guidance retrospectively only to the most current period presented in the financial statements. This means that entities will have to recognize the cumulative effect of initially applying the new standard as an adjustment to the opening balance of retained earnings at the date of initial application. The new revenue standard will be applied to contracts that are in progress at the date of initial application. The standard will be effective for annual and interim periods beginning after December 15, 2016. The Company has yet to evaluate which adoption method it plans to use or the potential effect of the new standard on its consolidated financial statements.

In August 2014, the FASB issued Accounting Standards Update No. 2014-15, *Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern* ("ASU 2014-15"), which will require a reporting entity to evaluate, at each annual and interim reporting period, whether there are conditions or events that raise substantial doubt about the reporting entity's ability to continue as a going concern within one year after the date the financial statements are issued and provide related disclosures. The standard will be effective for annual and interim periods beginning after December 15, 2016, with early adoption permitted. The Company has yet to evaluate the potential effect of the new standard on its consolidated financial statements.

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries, Sunesis Europe Limited, a United Kingdom corporation, and Sunesis Pharmaceuticals (Bermuda) Ltd., a Bermuda corporation, as well as a Bermuda limited partnership, Sunesis Pharmaceuticals International LP. All intercompany balances and transactions have been eliminated in consolidation.

Segment Reporting

Management has determined that the Company operates as a single reportable segment.

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 thereto. Actual results could differ materially from these estimates. Estimates, assumptions and judgments made by management include those related to the valuation of equity and related instruments, revenue recognition, stock-based compensation and clinical trial accounting.

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 (deficit).

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), net in the statements of operations and comprehensive loss. 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), net. The cost of securities sold is based on the specific-identification method.

Invoices for certain services provided to the Company are denominated in foreign currencies. To manage the risk of future movements in foreign exchange rates that would affect such amounts, 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. 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. To date, the Company has purchased Euros and Euro-denominated obligations of foreign governments and corporate debt. As of December 31, 2014 and December 31, 2013, the Company held investments denominated in Euros with an aggregate fair value of $0 and $2.6 million, respectively. Any cash, cash equivalent and short-term investment balances denominated in foreign currencies are recorded at their fair value based on the current exchange rate as of each balance sheet date. The resulting exchange gains or losses and those from amounts payable for services originally denominated in foreign currencies are both recorded in other income (expense), net in the statements of operations and comprehensive loss.

Fair Value Measurements

The Company measures cash equivalents, marketable securities and warrant liabilities at fair value on a recurring basis using the following hierarchy to prioritize valuation inputs, in accordance with applicable GAAP:

Level 1 - quoted prices (unadjusted) in active markets for identical assets and liabilities that can be accessed at the measurement date

Level 2 - inputs other than quoted prices included within Level 1 that are observable, either directly or indirectly

Level 3 - unobservable inputs

The Company's Level 2 valuations of marketable securities are generally derived from independent pricing services based upon quoted prices in active markets for similar securities, with prices adjusted for yield and number of days to maturity, or based on industry models using data inputs, such as interest rates and prices that can be directly observed or corroborated in active markets.

The fair value of the Company's liability for warrants issued in connection with an underwritten offering completed in October 2010 (the "2010 Offering") is determined using the Black-Scholes model, which requires inputs such as the expected term of the warrants, share price volatility, expected dividend yield and risk-free interest rate. As some of these inputs are unobservable, and require significant analysis and judgment to measure, these variables are classified as Level 3.

The carrying amounts of the Company's financial instruments, including cash, prepayments, accounts payable, accrued liabilities, deferred revenue and notes payable approximated their fair value as of December 31, 2014 and December 31, 2013.

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 Royalty Agreement

The payment of $25.0 million by RPI under the Royalty Agreement (see Note 6) is non-refundable, and no revenue participation right payments will be made unless vosaroxin is commercialized. Accordingly, the payment received from RPI is being accounted for as a payment for the Company to use commercially reasonable efforts to commercialize vosaroxin. Therefore, the amount is to be deferred and recognized as revenue over the projected performance period under the agreement. The payment, less $3.1 million representing the fair value of the warrants granted under the arrangement, was initially classified as deferred revenue and is being amortized to revenue over the related performance period. The fair value of the warrants was recorded to additional paid-in capital.

Accounting for Notes Payable

The accounting for certain fees and expenses related to the Loan Agreement (see Note 8) is as follows. The facility fee is being accounted for as a debt discount and classified within notes payable on the Company's balance sheet. The fair value of the warrants issued in connection with the Loan Agreement have been recorded as a debt discount within notes payable and an increase to additional paid-in capital on the Company's balance sheet. The debt discount is being amortized as interest expense over the term of the loan using the effective interest method. The final payment is being accreted as interest expense over the term of the loans using the effective interest method. The legal fees are being accounted for as deferred debt issuance costs within assets on the Company's balance sheet and are being amortized as other income (expense), net over the term of the loans using the effective interest method.

Accounting for Equity Financing

In October 2010, the Company completed the 2010 Offering (see Note 10), 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), net in the statements of operations and comprehensive loss.

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. 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, non-refundable fees are deferred and recognized ratably over the projected performance period.

Milestone payments from license or collaboration agreements which are substantive and at risk at the time the agreement is executed are recognized upon completion of the applicable milestone event. Royalty revenues, if any, will be recognized based on reported product sales by third-party licensees. Research funding from any future agreement will be recognized as the related research services are performed.

Research and Development

Research and development expense consists primarily of: (a) clinical trial costs, which include payments for work performed by contract research organizations ("CROs"), clinical trial sites, labs and other clinical service providers, and for drug packaging, storage and distribution; (b) drug manufacturing costs, which include costs for producing drug substance and drug product, and for stability and other testing; (c) personnel costs for related permanent and temporary employees; (d) other outside services and consulting costs; and (e) payments under license agreements. All research and development costs are expensed as they are incurred.

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 expense. Costs incurred for setting up clinical trial sites for participation in trials are generally non-refundable, and are expensed as incurred, 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 significant 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 the Company's 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 transaction date. 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), net in the statements of operations and comprehensive loss.

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 in other income (expense), net in the statements of operations and comprehensive loss.

3. Loss per Common Share

Basic loss per common share is calculated by dividing net loss by the weighted-average number of common shares outstanding for the period. Diluted net loss per common share is computed by dividing (a) net loss, less any anti-dilutive amounts recorded during the period for the change in the fair value of warrant liabilities, by (b) the weighted-average number of common shares outstanding for the period plus dilutive potential common shares as determined using the treasury stock method for options and warrants to purchase common stock.

The following table sets forth the computation of basic and diluted loss per common share for the periods presented (in thousands, except per share amounts):

	Year Ended December 31,		
	2014	2013	2012
Numerator:			
Net loss—basic	$ (43,002)	$ (34,598)	$ (43,951)
Adjustment for change in fair value of warrant liability	(3,892)	—	—
Net loss—diluted	$ (46,894)	$ (34,598)	$ (43,951)
Denominator:			
Weighted-average common shares outstanding—basic	60,057	52,249	48,146
Dilutive effect of warrants	1,453	—	—
Weighted-average common shares outstanding—diluted	61,510	52,249	48,146
Net loss per common share:			
Basic	$ (0.72)	$ (0.66)	$ (0.91)
Diluted	$ (0.76)	$ (0.66)	$ (0.91)

The following table represents the potential common shares issuable pursuant to outstanding securities as of the related period end dates that were excluded from the computation of diluted loss per common share because their inclusion would have had an anti-dilutive effect (in thousands):

	As of December 31,		
	2014	2013	2012
Warrants to purchase shares of common stock	8,978	9,978	10,359
Options to purchase shares of common stock	10,584	7,611	6,288
Outstanding securities not included in calculations	19,562	17,589	16,647

4. Financial Instruments

Financial Assets

The following tables summarize the estimated fair value of the Company's financial assets measured on a recurring basis as of the dates indicated, which were comprised solely of available-for-sale marketable securities with remaining contractual maturities of one year or less (in thousands):

December 31, 2014	Valuation Input Level	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Money market funds	Level 1	$ 9,287	$ —	$ —	$ 9,287
U.S. certificates of deposit	Level 1	6,360	—	—	6,360
U.S. corporate debt obligations	Level 2	11,789	—	(7)	11,782
U.S. commercial paper	Level 2	2,898	—	—	2,898
Total available-for-sale securities		30,334	—	(7)	30,327
Less amounts classified as cash equivalents		(9,532)	—	—	(9,532)
Amounts classified as marketable securities		$ 20,802	$ —	$ (7)	$ 20,795

December 31, 2013	Valuation Input Level	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Money market funds	Level 1	$ 6,282	$ —	$ —	$ 6,282
U.S. corporate debt obligations	Level 2	13,509	—	(4)	13,505
U.S. commercial paper	Level 2	8,396	3	—	8,399
Foreign corporate debt obligations	Level 2	2,571	—	(2)	2,569
Total available-for-sale securities		30,758	3	(6)	30,755
Less amounts classified as cash equivalents		(6,583)	—	—	(6,583)
Amounts classified as marketable securities		$ 24,175	$ 3	$ (6)	$ 24,172

The following table summarizes the available-for-sale securities that were in an unrealized loss position as of December 31, 2014, each having been in such a position for less than 12 months, and none deemed to be other-than-temporarily impaired (in thousands):

December 31, 2014	Gross Unrealized Losses	Estimated Fair Value
U.S. corporate debt obligations	$ 7	$ 11,782
Total available-for-sale securities in an unrealized loss position	$ 7	$ 11,782

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 generally been for relatively short durations. The Company does not intend to sell these securities before maturity and it is not likely that they will need to be sold prior to the recovery of their amortized cost basis. There were no sales of available-for-sale debt securities in the years ended December 31, 2014, 2013 and 2012.

Financial Liabilities

The following table summarizes the inputs and assumptions and estimated fair value of the Company's financial liabilities measured on a recurring basis as of the dates indicated, which were comprised solely of a liability for warrants issued in connection with an underwritten equity offering completed in 2010 (see Note 10):

	December 31, 2014	December 31, 2013
Inputs and assumptions:		
Fair market value of Company's common stock	$ 2.55	$ 4.74
Exercise price	$ 2.52	$ 2.52
Expected term (years)	0.8	1.8
Expected volatility	144.9%	60.8%
Risk-free interest rate	0.2%	0.3%
Expected dividend yield	0.0%	0.0%
Fair value:		
Estimated fair value per warrant share	$ 1.21	$ 2.56
Shares underlying outstanding warrants classified as liabilities (in thousands)	2,920	3,099
Total estimated fair value of outstanding warrants (in thousands)	$ 3,543	$ 7,931

The warrants have been classified as a liability on the Company's balance sheet due to the potential for the warrants to be settled in cash upon the occurrence of certain transactions specified in the warrant agreements. At each 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), net in the statements of operations and comprehensive loss, and the fair value of warrant exercises transferred to additional paid-in capital. During the year ended December 31, 2014, warrants to purchase 179,427 shares of common stock issued in connection with the 2010 Offering were exercised, resulting in cash proceeds to the Company of $452,000.

The Black-Scholes model requires Level 3 inputs such as the expected term of the warrants and share price volatility. These inputs are subjective and generally require significant analysis and judgment to develop. Any changes in these inputs could result in a significantly higher or lower fair value measurement.

The following table summarizes the changes in the fair value of the Company's Level 3 financial liabilities for the periods indicated (in thousands):

	Warrant Liability
Balance as of December 31, 2012	$ 8,070
Change in fair value of warrant liability	(96)
Exercise of warrants	(43)
Balance as of December 31, 2013	7,931
Change in fair value of warrant liability	(3,892)
Exercise of warrants	(496)
Balance as of December 31, 2014	$ 3,543

5. Other Accrued Liabilities

Other accrued liabilities as of December 31 were as follows (in thousands):

	2014	2013
Accrued outside services	$ 2,656	$ 1,249
Accrued professional services	355	263
Other accruals	76	133
Total other accrued liabilities	$ 3,087	$ 1,645

6. Royalty Agreement

In March 2012, the Company entered into a Revenue Participation Agreement (the "Royalty Agreement"), with RPI Finance Trust ("RPI"), an entity related to Royalty Pharma. In September 2012, pursuant to the provisions of the Royalty Agreement, RPI made a $25.0 million cash payment to the Company. In conjunction with the Royalty Agreement, we issued two five-year warrants to RPI, each to purchase 1,000,000 shares of our common stock, at exercise prices of $3.48 and $4.64 per share, respectively. Both warrants were net exercised in 2014, resulting in an aggregate issuance of 777,107 shares of common stock. The payment of $25.0 million, less $3.1 million representing the fair value of the warrants granted under the arrangement, was initially classified as deferred revenue and is being amortized to revenue over the related performance period.

Based on the results of the VALOR trial and the Company's plans to meet with European regulatory authorities in preparation for the filing of an MAA with the EMA in the second half of 2015 and to continue discussions with the FDA to determine a potential regulatory path forward in the United States, as discussed in Note 1, the Company extended the end date of the estimated performance period through which the balance of deferred revenue will be amortized from June 30, 2015 to September 30, 2016. As a result, the quarterly amortization was adjusted to $0.9 million per quarter, commencing with the quarter ended September 30, 2014, from the previous amortization rate of $2.0 million per quarter.

Revenue participation right payments will be made to RPI when and if vosaroxin is commercialized, at a rate of 6.75% of net sales of vosaroxin, on a product-by-product and country-by-country basis world-wide through the later of: (a) the expiration of the last to expire of certain specifically identified patents; (b) 10 years from the date of first commercial sale of such product in such country; or (c) the expiration of all applicable periods of data, market or other regulatory exclusivity in such country with respect to such product.

7. License Agreements

Overview

In August 2004, the Company entered into a collaboration agreement with Biogen Idec MA, Inc. ("Biogen Idec") to discover, develop and commercialize small molecule inhibitors of the human protein Raf kinase, including family members Raf-1, A-Raf, B-Raf and C-Raf (collectively "Raf") and up to five additional targets that play a role in oncology and immunology indications (the "Biogen Idec OCA"). In connection with the Company's June 2008 restructuring, the parties agreed to terminate the research obligations and related funding as of June 30, 2008.

In March 2011, as part of a series of agreements among the Company, Biogen Idec and Millennium Pharmaceuticals, Inc., a wholly-owned subsidiary of Takeda Pharmaceutical Company Limited, ("Millennium"), the Company entered into: (a) an amended and restated collaboration agreement with Biogen Idec (the "Biogen Idec 1st ARCA"); (b) a license agreement with Millennium (the "Millennium Agreement"); and (c) a termination and transition agreement among the Company, Biogen Idec and Millennium (the "Termination and Transition Agreement").

The Termination and Transition Agreement provided for (a) the termination of Biogen Idec's exclusive rights under the Biogen Idec OCA to all discovery programs under such agreement other than for small molecule inhibitors of the human protein Bruton's tyrosine kinase ("BTK"); (b) the permitted assignment to Millennium of all related Company collaboration assets and rights to Raf kinase and the human protein phosphoinositide-dependent kinase-1 ("PDK1"); and (c) the payment of $4.0 million upfront from Millennium to the Company, which was recorded as revenue in March 2011.

Biogen Idec

The Biogen Idec 1st ARCA amended and restated the Biogen Idec OCA, to provide for the discovery, development and commercialization of small molecule BTK inhibitors. Under this agreement, the Company no longer has research obligations, but licenses granted to Biogen Idec with respect to the research collaboration under the Biogen Idec OCA (other than the licenses transferred to Millennium under the Millennium Agreement) remain in effect.

In June 2012, the Company received an event-based payment of $1.5 million from Biogen Idec for the advancement of pre-clinical work in connection with the Biogen Idec 1st ARCA. Under this agreement, the Company is eligible to receive up to an additional $58.5 million in pre-commercialization event-based payments related to the development by Biogen Idec of the first two indications for licensed products against the BTK target. The Company is also eligible to receive royalty payments depending on related product sales, if any.

In December 2013, the Company entered into a second amended and restated collaboration agreement with Biogen Idec (the "Biogen Idec 2nd ARCA"), to provide the Company with an exclusive worldwide license to develop, manufacture and commercialize

SNS-062, a BTK inhibitor synthesized under the Biogen Idec 1st ARCA, solely for oncology indications. The Company may be required to make a $2.5 million milestone payment depending on its development of SNS-062 and royalty payments depending on related product sales of SNS-062. All other of Sunesis' rights and obligations contained in the Biogen Idec 1st ARCA remain unchanged, except that potential future royalty payments to Sunesis were reduced to equal those amounts due to Biogen Idec for potential future sales of SNS-062.

Millennium

Under the Millennium Agreement, the Company granted exclusive licenses to products against two oncology targets originally developed under the Biogen Idec OCA, Raf and PDK1, under substantially the same terms as under the Biogen Idec OCA.

In January 2014, the Company entered into an amended and restated license agreement with Millennium (the "Amended Millennium Agreement"), to provide the Company with an exclusive worldwide license to develop and commercialize preclinical inhibitors of PDK1. In connection with the execution of the Amended Millennium Agreement, the Company paid an upfront fee and may be required to make up to $9.2 million in pre-commercialization milestone payments depending on its development of PDK1 inhibitors and royalty payments depending on related product sales, if any.

With respect to the Raf target product rights that were originally licensed to Millennium under the Millennium Agreement, the Company may in the future receive up to $57.5 million in pre-commercialization event-based payments related to the development by Millennium of the first two indications for each of the licensed products directed against the Raf target and royalty payments depending on related product sales. Millennium is currently conducting a Phase 1 clinical study of an oral investigative drug, MLN2480, which is licensed to them under the Amended Millennium Agreement.

8. Notes Payable

In October 2011, the Company entered into a Loan and Security Agreement (the "Loan Agreement") with Oxford Finance LLC, Silicon Valley Bank and Horizon Technology Finance Corporation (collectively, the "Lenders"), under which the Company could borrow up to $25.0 million in two tranches (the "Loan Facility"). The first tranche of $10.0 million was funded upon closing of the transaction in October 2011, and the second tranche of $15.0 million was drawn by the Company in September 2012. In connection with the Loan Agreement, the Lenders were granted a perfected first priority security interest in substantially all of the Company's assets, other than intellectual property.

The interest rates for the first and second tranche are 8.95% and 9.00% per annum, respectively. Payments under the Loan Agreement are monthly in arrears and were interest-only until February 1, 2013, followed by 32 equal monthly payments of principal and interest from March 1, 2013 to the scheduled maturity date of October 1, 2015. In addition, a final payment equal to $937,500 will be due on October 1, 2015, or such earlier date as specified in the Loan Agreement. The weighted average annual effective interest rate on the notes payable, including the amortization of the debt discounts and accretion of the final payment, is 13.9%.

Aggregate future minimum payments due under the Loan Facility as of December 31, 2014 were as follows (in thousands):

Year ending December 31,	Total
2015	$ 8,814
Total minimum payments	8,814
Less amount representing interest	(352)
Notes payable, gross	8,462
Unamortized discount on notes payable	(84)
Accretion of final payment	879
Notes payable, balance	9,257
Less current portion of notes payable	(9,257)
Non-current portion of notes payable	$ —

On February 27, 2015, the Company entered into a third amendment (the "Amendment"), to the Loan Agreement with the Lenders. The Amendment modifies the loan repayment terms to be interest-only from March 1, 2015 to February 1, 2016, followed by eight equal monthly payments of principal and interest through the new maturity date of October 1, 2016. See Note 14 for further details.

9. Commitments and Contingencies

Commitments

The Company's operating lease obligations as of December 31, 2014 relate solely to the leasing of office space in a building at 395 Oyster Point Boulevard in South San Francisco, California, which is currently the Company's headquarters. In January 2014, a lease for 15,378 square feet was entered into with an expiry date of April 30, 2015. In June 2014, the lease was amended to extend the expiration date to June 30, 2015, and to add 6,105 square feet of additional office space within the same building, and in January 2015, the lease was further amended to extend the expiration date to December 31, 2015. The amended lease also includes an option to extend the lease for an additional six months, at a predetermined price, if exercised within a certain period.

Aggregate non-cancelable future minimum rental payments under the operating lease as of December 31, 2014 were as follows (in thousands):

Year Ending December 31,	Payments
2015	$ 247
Total rental payments	$ 247

The Company recognizes rent expense on a straight-line basis. The Company recorded rent expense of $0.4 million, $0.3 million and $0.4 million for the years ended December 31, 2014, 2013 and 2012, respectively.

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.

10. Stockholders' Equity

Preferred Stock

The Company has 10,000,000 shares of authorized preferred stock available for issuance 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 no shares of preferred stock outstanding as of December 31, 2014 and 2013.

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. Under the terms of the Loan Agreement with the Lenders, the Company is precluded from paying cash dividends without the prior written consent of the Lenders.

Underwritten Offering

On March 4, 2014, the Company completed an underwritten offering of 4,650,000 shares of common stock, each with two accompanying warrants to purchase one share of the Company's common stock at exercise prices of $8.50 (Series A) and $12.00 (Series B) per share, respectively. The purchase price for each share of common stock and two accompanying warrants was $9.25. Gross proceeds from the sale were $43.0 million, and net proceeds were $40.0 million, after deducting the underwriting discount and offering expenses.

The warrants became exercisable on a gross exercise basis upon unblinding of the VALOR trial, which occurred on October 6, 2014. The Series A warrants expired unexercised on December 4, 2014. The Series B warrants will expire on or before the later of 30 days following any final date assigned by the Food and Drug Administration as the Prescription Drug User Fee Act action date for vosaroxin (the "PDUFA date") and September 4, 2015, but in no event later than March 4, 2016. The common stock and accompanying warrants have both been classified to stockholders' equity (deficit) in the Company's balance sheet.

Controlled Equity Offerings

In August 2011, the Company entered into a Controlled Equity Offering℠ sales agreement (the "Sales Agreement"), with Cantor Fitzgerald & Co. ("Cantor"), as agent and/or principal, pursuant to which the Company could issue and sell shares of its common stock having an aggregate gross sales price of up to $20.0 million. In April 2013, the Sales Agreement was amended to provide for an increase of $30.0 million in the aggregate gross sales price under the Sales Agreement. The Company will pay Cantor a commission of 3.0% of the gross proceeds from any common stock sold through the Sales Agreement, as amended.

During the year ended December 31, 2014, the Company sold an aggregate of 5,113,876 shares of common stock under the Sales Agreement, as amended, at an average price of approximately $2.88 per share for gross proceeds of $14.7 million and net proceeds of $14.3 million, after deducting Cantor's commission. As of December 31, 2014, $6.8 million of common stock remained available to be sold under this facility.

In January and February 2015, the Company sold an aggregate of 1,579,124 shares of common stock under the Sales Agreement, as amended, at an average price of approximately $2.75 per share for gross proceeds of $4.3 million and net proceeds of $4.2 million, after deducting Cantor's commission. As of February 27, 2015, $2.5 million of common stock remained available to be sold under the Sales Agreement, as amended, subject to certain conditions as specified in the agreement.

2010 Offering

In October 2010, the Company completed an underwritten offering, pursuant to which the Company issued an aggregate of 7,357,610 shares of common stock and warrants to purchase 3,678,798 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 underwriting discounts and offering expenses. The warrants have an exercise price of $2.52 per share, and expire in October 2015.

The warrants have been classified as a derivative liability on 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. At each 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), net in the statements of operations and comprehensive loss. During the year ended December 31, 2014, warrants to purchase an aggregate of 179,427 shares of common stock that were issued in connection with the 2010 Offering were exercised, resulting in cash proceeds to the Company of $452,000. As of December 31, 2014, warrants to purchase an aggregate of 2,920,051 shares of common stock issued in connection with the 2010 Offering remained outstanding, with an estimated fair value of $3.5 million.

Equity Incentive Plans

The Company grants options to purchase shares of its common stock primarily to: (i) new employees, of which 25% of the shares subject to such options become exercisable on the first anniversary of the vesting commencement date, and 1/48th of the shares subject to such options become exercisable each month over the remainder of the four-year vesting period, (ii) existing employees, of which 1/48th of the shares subject to such options become exercisable each month following the date of grant over a four-year vesting period, (iii) new non-employee members of the board of directors, of which 50% of the shares subject to such options become 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, of which 1/24th of the shares subject to such options become exercisable each month following the date of grant over a two-year vesting period.

On March 15, 2011, the Company's Board of Directors adopted, and on June 3, 2011, the Company's stockholders approved, the 2011 Equity Incentive Plan (the "2011 Plan"). The 2011 Plan is intended as the successor to and continuation of the Company's 1998 Stock Plan, 2001 Stock Plan, 2005 Equity Incentive Award Plan and 2006 Employment Commencement Incentive Plan (collectively, the "Prior Plans"). No additional stock awards will be granted under the Prior Plans.

The Company initially reserved a total of 6,041,856 shares of common stock for issuance under the 2011 Plan, which is the sum of (i) the 539,803 shares remaining available as of the Effective Date under the Prior Plans, (ii) an additional 4,400,000 new shares, and (iii) that portion of the 1,102,053 shares underlying stock options granted and currently outstanding 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.

The number of shares of common stock available for issuance under the 2011 Plan automatically increases on January 1st of each year for a period of 10 years commencing on January 1, 2012 by an amount equal to: (i) 4.0% of the Company's outstanding shares of common stock on December 31st of the preceding calendar year, or (ii) a lesser amount determined by the Board of

Directors. On January 1, 2014 and 2013, in accordance with the above, the number of shares of common stock available for issuance under the 2011 Plan was increased by 2,173,764 and 2,062,609 shares, respectively.

During the year ended December 31, 2014, options to purchase 3,840,500 shares of the Company's common stock were granted under the 2011 Plan. As of December 31, 2014, there were 672,273 shares available for future grants under the 2011 Plan.

Employee Stock Purchase Plans

On March 5, 2011, the Company's Board of Directors adopted, and on June 3, 2011, the Company's stockholders approved, the 2011 Employee Stock Purchase Plan (the "2011 ESPP"). The 2011 ESPP is intended as the successor to the Company's 2005 Employee Stock Purchase Plan, which was terminated on June 3, 2011.

The 2011 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 (i) the beginning of a 12-month offering period, or (ii) at the end of one of the two related 6-month purchase periods. No participant in the 2011 ESPP may be issued or transferred shares of common stock valued at more than $25,000 per calendar year. The initial offering under the 2011 ESPP commenced on June 13, 2011 and ended on May 31, 2012. Subsequent 12-month offerings commenced or will commence on or around June 1st of each year.

The Company initially reserved a total of 500,000 shares of common stock for issuance under the 2011 ESPP. The number of shares of common stock available for issuance under the 2011 ESPP automatically increases on January 1st of each year for a period of 10 years commencing on January 1, 2012 by an amount equal to: (i) 1.0% of the Company's outstanding shares of common stock on December 31st of the preceding calendar year, or (ii) a lesser amount determined by the Board of Directors. On January 1, 2014 and 2013, in accordance with the above, the number of shares of common stock available for issuance under the 2011 ESPP was increased by 271,720 and nil shares, respectively.

A total of 99,049 shares were issued under the 2011 ESPP during the year ended December 31, 2014. As of December 31, 2014, there were 431,672 shares available for future issuance under the ESPP.

Warrants

Warrants to purchase shares of the Company's common stock outstanding as of December 31, 2014 were as follows (in thousands, except per share amounts):

Date Issued	Shares	Exercise Price Per Share	Expiration
August 2005	14	$ 54.60	August 2015
October 2010	2,920	$ 2.52	October 2015
March 2014	4,650	$ 12.00	March 2016
April 2009	2,876	$ 1.32	April 2016
October 2009	1,438	$ 1.32	October 2016
Total warrants outstanding and exercisable	11,898		

Reserved Shares

Shares of the Company's common stock reserved for future issuance as of December 31, 2014 were as follows (in thousands):

	Shares Available for Future Grant	Outstanding Securities	Total Shares Reserved
Warrants	—	11,898	11,898
Stock option plans	672	10,584	11,256
Employee stock purchase plan	432	—	432
Total reserved shares of common stock	1,104	22,482	23,586

11. 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. The following table summarizes stock-based compensation expense related to the Company's stock-based awards for the periods indicated (in thousands):

	Year ended December 31,		
	2014	2013	2012
Research and development	$ 2,201	$ 1,598	$ 1,030
General and administrative	3,681	1,983	1,372
Employee stock-based compensation expense	5,882	3,581	2,402
Non-employee stock-based compensation expense	337	304	322
Total stock-based compensation expense	$ 6,219	$ 3,885	$ 2,724

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 indicated:

	Year Ended December 31,		
	2014	2013	2012
Assumptions:			
Expected term (years)	5.2	4.7	5.4
Expected volatility	88.1%	90.0%	88.7%
Risk-free interest rate	1.7%	1.0%	1.1%
Expected dividend yield	0.0%	0.0%	0.0%
Fair value:			
Weighted-average estimated grant date fair value per share	$ 3.18	$ 3.63	$ 1.46
Options granted to employees (in thousands)	3,676	1,785	2,310
Total estimated grant date fair value (in thousands)	$ 11,704	$ 6,472	$ 3,377

The estimated fair value of stock options that vested in the years ended December 31, 2014, 2013 and 2012, was $2.6 million, $3.4 million and $2.1 million, respectively. 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. 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 (in thousands, except per share amounts):

	Number of Shares	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding as of December 31, 2013	7,611	$ 3.61		
Options granted	3,840	$ 4.54		
Options exercised	(565)	$ 2.17		
Options forfeited or expired	(302)	$ 7.13		
Outstanding as of December 31, 2014	10,584	$ 3.93	7.63	$ 3,885
Vested and expected to vest as of December 31, 2014	10,584	$ 3.93	7.63	$ 3,885
Exercisable as of December 31, 2014	5,701	$ 3.86	6.57	$ 2,075

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, 2014.

The intrinsic value of options exercised during the years ended December 31, 2014, 2013 and 2012 was $2.7 million, $0.3 million and $0.2 million, 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 $12.2 million as of December 31, 2014, 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 2.6 years.

12. Income Taxes

Loss before the provision for income taxes consisted of the following (in thousands):

	Year Ended December 31,		
	2014	2013	2012
U.S. operations	$ (32,696)	$ (29,963)	$ (43,951)
Foreign operations	(10,306)	(4,635)	—
Loss before provision for income taxes	$ (43,002)	$ (34,598)	$ (43,951)

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 (in thousands):

	Year Ended December 31,		
	2014	2013	2012
Tax at statutory rate	$ (14,620)	$ (11,763)	$ (14,943)
Current year net operating losses and temporary differences for which no tax benefit is recognized	14,104	12,457	5,351
Foreign tax rate differential	3,504	1,499	—
Deferred revenue	(1,934)	(2,706)	6,672
Change in fair value of warrant liability	(1,313)	(16)	2,570
Other permanent differences	259	529	350
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 (in thousands):

	December 31,	
	2014	2013
Deferred tax assets:		
Federal and state net operating loss carry-forwards	$ 138,066	$ 123,490
Federal and state research credit carry-forwards	12,964	12,064
Capitalized research costs	5,199	5,119
Deferred revenue	2,394	4,668
Stock-based compensation	4,358	3,212
Property and equipment	129	133
Accrued liabilities	481	341
Gross deferred tax assets	163,591	149,027
Valuation allowance	(163,591)	(149,027)
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 $14.6 million, $12.6 million and $13.7 million during the years ended December 31, 2014, 2013 and 2012, respectively.

As of December 31, 2014, the Company had federal net operating loss carry-forwards of $364.5 million and federal research and development tax credit carry-forwards of $8.1 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, 2014, the Company had state net operating loss carry-forwards of $235.8 million, which begin to expire in 2015, and state research and development tax credit carry-forwards of $7.2 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, 2014 and 2013, the Company had no unrecognized tax positions.

The Company files U.S. federal and California tax returns. The Company's wholly owned subsidiaries, Sunesis Europe Limited and Sunesis Pharmaceuticals (Bermuda) Ltd., are currently not required to file tax returns. To date, neither the Company nor any of its subsidiaries have been audited by the Internal Revenue Service, any state income tax authority or tax authority in the related jurisdictions. Due to net operating loss carry-forwards, substantially all of the Company's tax years remain open to federal tax examination.

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, 2014.

14. Subsequent Events

On February 27, 2015, the Company entered into a third amendment (the "Amendment"), to the Loan Agreement with the Lenders. The Amendment modifies the loan repayment terms to be interest-only from March 1, 2015 to February 1, 2016, followed by eight equal monthly payments of principal and interest through the new maturity date of October 1, 2016. In addition, the final payment will be increased from $937,500 (3.75%) to $1,162,500 (4.65%) of the total loan facility, and will become due on the new maturity date, or such earlier date specified in the Loan Agreement. If the Company repays all or a portion of the loan prior to February 29, 2016 as part of a refinancing with another lender, a prepayment fee equal to 2% of the then outstanding principal balance will be due to the Lenders. As a result of the Amendment, the Lenders were issued five-year warrants to purchase an aggregate of up to 61,467 shares of the Company's common stock at a per share exercise price of $2.22.

In January and February 2015, the Company sold an aggregate of 1,579,124 shares of common stock under the Sales Agreement, as amended, at an average price of approximately $2.75 per share for gross proceeds of $4.3 million and net proceeds of $4.2 million, after deducting Cantor's commission. See Note 10 for further details.

In January 2015, the lease for the Company's facility at 395 Oyster Point Boulevard in South San Francisco, California was amended to extend the expiration date to December 31, 2015. See Note 9 for further details.

15. Selected Quarterly Financial Data (unaudited, and in thousands, except per share amounts)

The following table sets forth the Company's unaudited consolidated financial results for the last eight fiscal quarters.

	Three Months Ended							
	Mar. 31, 2014	June 30, 2014	Sep. 30, 2014	Dec. 31, 2014	Mar. 31, 2013	June 30, 2013	Sep. 30, 2013	Dec. 31, 2013
Revenue	$ 1,995	$ 1,989	$ 854	$ 896	$ 1,989	$ 1,989	$ 1,989	$ 1,989
Net loss:								
Basic	$(14,573)	$(11,781)	$(15,325)	$ (1,323)	$(11,624)	$ (8,190)	$ (7,607)	$ (7,177)
Diluted	$(14,573)	$(12,114)	$(15,325)	$ (1,323)	$(11,624)	$ (9,336)	$ (8,329)	$ (8,257)
Shares used in computing net loss per common share:								
Basic	56,313	60,246	60,549	63,041	51,587	51,630	51,698	54,060
Diluted	56,313	61,895	60,549	63,041	51,587	53,268	53,271	55,573
Net loss per common share:								
Basic	$ (0.26)	$ (0.20)	$ (0.25)	$ (0.02)	$ (0.23)	$ (0.16)	$ (0.15)	$ (0.13)
Diluted	$ (0.26)	$ (0.20)	$ (0.25)	$ (0.02)	$ (0.23)	$ (0.18)	$ (0.16)	$ (0.15)

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, 2014, 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 to ensure the information required to be disclosed by us in reports that we file or submit under the Exchange is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission rules and forms.

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, 2014. Management based its assessment on the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) in *Internal Control—Integrated Framework*. Based on this evaluation, our management concluded that as of December 31, 2014, our internal control over financial reporting was effective at the reasonable assurance level.

The effectiveness of our internal control over financial reporting as of December 31, 2014 has been audited by Ernst & Young LLP, our independent registered public accounting firm, as stated in their attestation report, which is included herein.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended December 31, 2014 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.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of Sunesis Pharmaceuticals, Inc.

We have audited Sunesis Pharmaceuticals, Inc.'s internal control over financial reporting as of December 31, 2014, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). Sunesis Pharmaceuticals, Inc.'s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Sunesis Pharmaceuticals, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2014, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Sunesis Pharmaceuticals, Inc. as of December 31, 2014 and 2013, and the related consolidated statements of operations and comprehensive loss, stockholders' equity (deficit), and cash flows for each of the three years in the period ended December 31, 2014 of Sunesis Pharmaceuticals, Inc. and our report dated March 12, 2015 expressed an unqualified opinion thereon.

/s/ ERNST & YOUNG LLP

Redwood City, California
March 12, 2015

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, 2014, 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 & 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, 2014:

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)	10,583,763 (2)	$ 3.93	1,103,945 (3)
Equity Compensation Plans Not Approved by Stockholders	—	$ —	—
Total	10,583,763	$ 3.93	1,103,945

(1) Includes securities issuable under our 2011 Equity Incentive Plan, or 2011 Plan, and 2011 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. No participant in the ESPP may be issued or transferred shares of common stock valued at more than $25,000 per calendar year.

(3) Includes (i) 672,273 shares of common stock available for issuance under our 2011 Plan and (ii) 431,672 shares of common stock available for issuance under our ESPP. Beginning in 2012, the number of shares of common stock reserved under the 2011 Plan automatically increases on January 1st of each year by an amount equal to: (i) 4.0% of our shares of common stock outstanding on December 31st of the preceding calendar year, or (ii) a lesser amount determined by our Board of Directors. The number of shares of common stock reserved under our ESPP automatically increases on January 1st of each year by an amount equal to: (i) 1.0% of our shares of common stock outstanding on December 31st of the preceding calendar year, or (ii) a lesser amount determined by our Board of Directors.

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, FINANCIAL STATEMENT SCHEDULES*

Exhibits and Financial Statement Schedules:

(a)(1) Financial Statements

(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 12, 2015.

SUNESIS PHARMACEUTICALS, INC.

By: /s/ Eric H. Bjerkholt
Eric H. Bjerkholt
Executive Vice President, Corporate Development and Finance, Chief Financial Officer

POWER OF ATTORNEY 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 12, 2015
/s/ Daniel N. Swisher, Jr Daniel N. Swisher, Jr.	President, Chief Executive Officer and Director *(Principal Executive Officer)*	March 12, 2015
/s/ Eric H. Bjerkholt Eric H. Bjerkholt	Executive Vice President, Corporate Development and Finance, Chief Financial Officer *(Principal Financial Officer and Principal Accounting Officer)*	March 12, 2015
/s/ Steve Carchedi Steve Carchedi	Director	March 12, 2015
/s/ Matthew K. Fust Matthew K. Fust	Director	March 12, 2015
/s/ Steven B. Ketchum, Ph.D Steven B. Ketchum, Ph. D.	Director	March 12, 2015
/s/ Helen S. Kim Helen S. Kim	Director	March 12, 2015
/s/ Dayton Misfeldt Dayton Misfeldt	Director	March 12, 2015
/s/ Homer L. Pearce, Ph.D. Homer L. Pearce, Ph.D.	Director	March 12, 2015
/s/ David C. Stump, M.D. David C. Stump, M.D.	Director	March 12, 2015

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	10-K	000-51531	4.2	3/29/2011	
4.3	Form of Series A Common Stock Purchase Warrant	8-K	000-51531	4.1	2/27/2014	
4.4	Form of Series B Common Stock Purchase Warrant	8-K	000-51531	4.2	2/27/2014	
4.5	Form of Warrant Agency Agreement by and between the Registrant and American Transfer & Trust & Company, LLC	8-K	000-51531	4.3	2/27/2014	
10.1*	2001 Stock Plan and Form of Stock Option Agreement	S-1	333-121646	10.2	12/23/2004	
10.2*	2005 Equity Incentive Award Plan, as amended, and Form of Stock Option Agreement	10-K/A	000-51531	10.3	4/30/2009	
10.3*	Employee Stock Purchase Plan and Enrollment Form	10-Q	000-51531	10.4	11/9/2006	
10.4*	Form of Indemnification Agreement for directors and executive officers	S-1	333-121646	10.5	12/23/2004	
10.5†	License Agreement, dated October 14, 2003, by and between the Registrant and Sumitomo Dainippon Pharma Co., Ltd. (formerly known as Dainippon Pharmaceutical Co., Ltd.)	S-1/A	333-121646	10.36	4/29/2005	
10.6	Warrant, dated August 25, 2005, issued to Horizon Technology Funding Company II LLC	S-1/A	333-121646	10.40	9/1/2005	
10.7	Warrant, dated August 25, 2005, issued to Horizon Technology Funding Company III LLC	S-1/A	333-121646	10.41	9/1/2005	
10.8	Warrant, dated August 25, 2005, issued to Oxford Finance Corporation	S-1/A	333-121646	10.42	9/1/2005	
10.9*	Amended and Restated 2006 Employment Commencement Incentive Plan	10-K/A	000-51531	10.32	4/30/2009	

Exhibit Number	Exhibit Description	Incorporated By Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.10*	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	
10.11*	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	
10.12*	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	
10.13*	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	
10.14*	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	
10.15	Form of Warrant to purchase shares of Common Stock	8-K	000-51531	10.2	4/3/2009	
10.16	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	
10.17	Form of Warrant to Purchase Common Stock of the Registrant	8-K	000-51531	4.1	10/1/2010	
10.18	Master Services Agreement, dated June 21, 2010, by and between the Registrant and Icon Clinical Research Limited	10-K	000-51531	10.54	3/29/2011	
10.19	First Amendment to Master Services Agreement, dated August 1, 2008, by and between the Registrant and Aptuit, Inc. (as assignee of Quintiles, Inc.)	10-Q	000-51531	10.3	5/12/2011	
10.20	Amended and Restated Collaboration Agreement, dated March 31, 2011, by and between the Registrant and Biogen Idec MA Inc.	10-Q/A	000-51531	10.4	6/30/2011	
10.21	License Agreement, dated March 31, 2011, by and between the Registrant and Millennium Pharmaceuticals, Inc.	10-Q/A	000-51531	10.5	6/30/2011	
10.22	Termination and Transition Agreement, dated March 31, 2011, by and between the Registrant, Biogen Idec MA Inc. and Millennium Pharmaceuticals, Inc.	10-Q	000-51531	10.6	5/12/2011	
10.23*	Sunesis Pharmaceuticals, Inc. 2011 Equity Incentive Plan	S-8	333-174732	99.1	6/6/2011	
10.24*	Sunesis Pharmaceuticals, Inc. 2011 Employee Stock Purchase Plan	S-8	333-174732	99.2	6/6/2011	
10.25	Sales Agreement, dated August 11, 2011, between Sunesis Pharmaceuticals, Inc. and Cantor Fitzgerald & Co.	8-K	000-51531	10.1	8/11/2011	
10.26	Loan and Security Agreement among the Registrant, Oxford Finance LLC, Silicon Valley Bank and Horizon Technology Finance Corporation, dated as of October 18, 2011	8-K	000-51531	10.1	10/19/2011	

Exhibit Number	Exhibit Description	Incorporated By Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.27*	Executive Severance Benefits Agreement, dated January 31, 2012, by and between the Registrant and Adam R. Craig	10-K	000-51531	10.56	3/14/2012	
10.28*	Forms of Stock Option Grant Notice and Option Agreement under the 2011 Equity Incentive Plan	10-K	000-51531	10.57	3/14/2012	
10.29*	Forms of Restricted Stock Unit Grant Notice and Restricted Stock Unit Agreement under the 2011 Equity Incentive Plan	10-K	000-51531	10.58	3/14/2012	
10.30†	Revenue Participation Agreement, dated March 29, 2012, by and between Sunesis Pharmaceuticals, Inc. and RPI Finance Trust	10-Q	000-51531	10.6	5/15/2012	
10.31	First Amendment to Loan and Security Agreement Among the Registrant, Oxford Finance LLC, Silicon Valley Bank and Horizon Technology Finance Corporation, dated March 29, 2012	10-Q	000-51531	10.7	5/15/2012	
10.32*	Amendment to Executive Severance Benefit Agreement, dated October 24, 2012, by and between the Registrant and Adam R. Craig	10-K	000-51531	10.61	3/13/2013	
10.33	Amendment No. 1 to Sales Agreement, dated August 11, 2011, between the Registrant and Cantor Fitzgerald & Co., dated April 10, 2013	8-K	000-51531	10.1	4/10/2013	
10.34	Termination and Registration Rights Agreement, dated June 7, 2013, by and among the Registrant and the investors identified on the signature pages thereto	8-K	000-51531	10.1	6/11/2013	
10.35	Non-Employee Director Compensation Information	10-Q	000-51531	10.3	8/2/2013	
10.36	Second Amendment to Loan and Security Agreement, dated October 18, 2011, by and between the Registrant, Oxford Finance LLC, Silicon Valley Bank and Horizon Technology Finance Corporation, dated September 23, 2013	10-Q	000-51531	10.1	11/12/2013	
10.37*	Offer Letter, dated January 10, 2014, by and between the Registrant and Joseph DePinto	10-K	000-51531	10.44	3/6/2014	
10.38*	Executive Severance Benefits Agreement, dated March 6, 2014, by and between the Registrant and Joseph DePinto	10-K	000-51531	10.45	3/6/2014	
10.39†	Second Amended and Restated Collaboration Agreement, dated December 16, 2013, by and between the Registrant and Biogen Idec MA Inc.	10-K	000-51531	10.46	3/6/2014	
10.40†	Amended and Restated License Agreement, dated January 8, 2014, by and between the Registrant and Millennium Pharmaceuticals, Inc.	10-K	000-51531	10.47	3/6/2014	
10.41	Lease Agreement, dated January 14, 2014, by and between the Registrant and Kashiwa Fudosan America, Inc., for office space located at 395 Oyster Point Boulevard, South San Francisco, California	10-K	000-51531	10.45	3/6/2014	
10.42*	Sunesis Pharmaceuticals, Inc. 2014 Bonus Program	8-K	000-51531	10.1	3/24/2014	

Exhibit Number	Exhibit Description	Incorporated By Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.43	First Amendment to Office Lease, dated June 3, 2014, by and between the Registrant and Kashiwa Fudosan America, Inc., for office space located at 395 Oyster Point Boulevard, South San Francisco, California.....	10-Q	000-51531	10.1	8/05/2014	
10.44	Second Amendment to Office Lease, dated January 28, 2015, by and between the Registrant and Kashiwa Fudosan America, Inc., for office space located at 395 Oyster Point Boulevard, South San Francisco, California					X
21.1	Subsidiaries of the Registrant	10-Q	000-51531	21.1	8/02/2013	
23.1	Consent of Independent Registered Public Accounting Firm.....					X
24.1	Power of Attorney.....					(included on Signature page)
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
101.INS	XBRL Instance Document					
101.SCH	XBRL Taxonomy Extension Schema Document.....					
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.....					
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.....					
101.LAB	XBRL Taxonomy Extension Labels Linkbase Document.....					
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.....					

* 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.

[THIS PAGE INTENTIONALLY LEFT BLANK]

[THIS PAGE INTENTIONALLY LEFT BLANK]

[THIS PAGE INTENTIONALLY LEFT BLANK]