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, 2018

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 every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

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, 2018, as reported by The Nasdaq Stock Market, was $70,737,319. The calculation of the aggregate market value of voting and non-voting stock excludes certain shares of the registrant's common stock held by current executive officers, directors and stockholders that the registrant has concluded are affiliates of the registrant. Exclusion of such shares should not be construed to indicate that any such person possesses the power, direct or indirect, to direct or cause the direction of the management or policies of the registrant or that such person is controlled by or under common control with the registrant.

The total number of shares outstanding of the registrant's common stock, $0.0001 par value per share, as of March 1, 2019, was 67,578,087.

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 2019 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, 2018.

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 expectations for gaining marketing approval in the United States, including the continued development and commercialization of vecabrutinib (formerly SNS-062), SNS-510, TAK-580, vosaroxin, and other product candidates, the timing of our Phase 1b/2 trial of vecabrutinib, 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, including any partnering arrangements related to further vosaroxin development, 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

Sunesis Pharmaceutical, Inc. ("Sunesis" or the "Company") is a biopharmaceutical company focused on the development of new targeted inhibitors for the treatment of solid and hematologic cancers. Our 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.

Our lead program is vecabrutinib, a non-covalent inhibitor of Bruton's Tyrosine Kinase, or BTK. In clinical trials, vecabrutinib has shown activity against both wild type and C481S-mutated BTK, the most common mutation associated with resistance to ibrutinib. Vecabrutinib is being studied in a Phase 1b/2 clinical trial to assess safety and activity in patients with advanced B-cell malignancies after two or more prior therapies, including ibrutinib or another covalent BTK inhibitor where approved for the disease. The Phase 1b portion of the study is a dose escalation component that will proceed to define a maximum tolerated dose and/or a recommended Phase 2 dose. Upon identifying the Phase 2 dose, the Phase 2 portion will further explore clinical activity and safety in disease- and mutation-specific cohorts, including patients with and without BTK C481 mutations.

We are also developing SNS-510, a PDK1 inhibitor licensed from Millennium Pharmaceuticals, Inc., a wholly-owned subsidiary of Takeda Pharmaceutical Company Limited, or Takeda. We acquired from Takeda global commercial rights to several potential first-in class, preclinical inhibitors of the novel target PDK1, including SNS-510. We are currently characterizing SNS-510 through preclinical pharmacology studies, manufacturing and formulation activities.

We are in a collaboration with Takeda for the development of TAK-580 (formerly MLN2480), an oral pan-RAF inhibitor, which is under investigation for pediatric low-grade glioma.

We are also evaluating strategic alternatives for vosaroxin, a topoisomerase 2 inhibitor for which we conducted a Phase 3 trial in patients with relapsed or refractory acute myeloid leukemia.

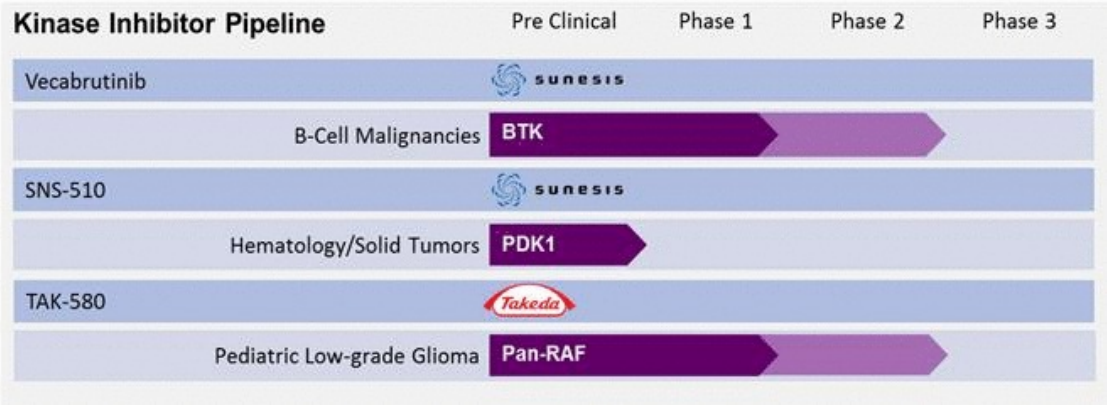
Our Strategy

We plan to continue to build Sunesis into a leading biopharmaceutical company focused on the development and commercialization of new targeted oncology therapeutics by:

- exploring the safety and efficacy of vecabrutinib as a potential treatment for B-cell malignancies, including for Chronic Lymphocytic Leukemia ("CLL") patients who have relapsed following treatment with a covalent BTK inhibitor;
- characterizing SNS-510 through preclinical pharmacology studies, manufacturing and formulation activities; 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:



Vecabrutinib (SNS-062)

Vecabrutinib is a selective, reversible, non-covalent BTK inhibitor. BTK mediates signaling through the B-cell receptor, and 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 the covalent BTK inhibitors Imbruvica® (ibrutinib) and Calquence® (acalabrutinib) approved for relapsed/refractory mantle cell lymphoma, and Imbruvica also approved for newly diagnosed and relapsed/refractory CLL, CLL with 17p deletion, Waldenström's macroglobulinemia, chronic graft versus host disease (cGVHD), and marginal zone lymphoma. Covalent BTK inhibitors, including Imbruvica and Calquence, form an irreversible bond with cysteine residue 481 (C481) in the BTK kinase domain. This cysteine may mutate to a serine ("C481S") or another amino acid and this is associated with disease progression and resistance to further treatment with covalent BTK inhibitors. Resistance to covalent BTK inhibitors is a growing problem, with a seminal 2017 paper in the Journal of Clinical Oncology by Woyach et al finding 19% of Imbruvica-treated patients had developed resistance by year 4. Studies, including this one, as well as by the European Research Initiative on CLL (ERIC) and the French Innovative Leukemia Organization (FILO) Group identified the BTK C481S mutation in more than half of Imbruvica-relapsed patients. Collectively these studies provide further evidence of resistance to covalent BTK inhibitors as a significant and growing problem. Vecabrutinib has shown potent inhibitory activity in vitro against both wild type and C481S-mutated BTK and may provide a potential solution to resistance to covalent BTK inhibitors.

In addition to vecabrutinib's non-covalent inhibition of BTK, vecabrutinib inhibits interleukin-2 inducible kinase (ITK). Inhibition of ITK may improve anti-tumor T-cell activity, and inhibition of both BTK and ITK contributes to Imbruvica's activity in cGVHD and also the potential improvement in response when combined with chimeric antigen receptor T (CAR-T) cell therapies. Notably, vecabrutinib does not inhibit epidermal growth factor receptor (EGFR), a kinase target associated with skin and gastrointestinal toxicities. Vecabrutinib's distinct kinase selectivity profile and favorable pharmacokinetics indicate the potential for vecabrutinib to become a differentiated treatment for B-cell malignancies. In 2018, we continued to invest in building vecabrutinib's nonclinical profile resulting in presentations at the 2018 annual meetings of the European Hematology Association (EHA) and the American Society of Hematology (ASH).

In July 2017, we announced the dosing of the first patient in the Phase 1b/2 study, and in connection to this event, we also made a milestone payment of $2.5 million to Biogen Idec MA, Inc., or Biogen, under the licensing agreement.

We are studying vecabrutinib in a Phase 1b/2 trial in adults with B-cell malignancies, including relapsed/refractory CLL. The study is now open at 8 leading clinical sites: Dana-Farber Cancer Institute, Weill Cornell Medicine, UC Irvine, MD Anderson Cancer Center, Swedish Cancer Institute, Memorial Sloan Kettering Cancer Center, Moffitt Cancer Center, and University California San Diego. Preliminary safety, pharmacokinetics, and pharmacodynamics from vecabrutinib's Phase 1b/2 study, as well as some early evidence of clinical activity, were presented at ASH 2018. Specifically, vecabrutinib exposure is sustained throughout the dosing interval, with evidence of pharmacodynamic activity in patients with relapsed/refractory B-cell malignancies. Decreases in pBTK and tumor microenvironment-relevant cytokines were observed in patients with and without BTK C481 mutations. The most common treatment emergent adverse events included anemia, neutropenia, and night sweats. The preliminary safety profile of vecabrutinib is acceptable and dose escalation in the study is continuing. The 100 mg BID cohort opened at the end of 2018.

SNS-510

Our first-in-class PDK1 inhibitor SNS-510 is in preclinical studies.

In January 2014, we in-licensed a series of selective PDK1 inhibitors from Takeda that were discovered under a research collaboration agreement between Biogen and Sunesis, as described below. PDK1 is a key kinase and mediator of PI3K/AKT signaling and also regulates other pathways, including mitogen-activated protein kinase (MAPK) and NF-KB, by PI3K-independent mechanisms. These pathways are involved in cell growth, differentiation, survival and migration and are frequently dysregulated in cancers. PDK1 inhibitors are expected 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 2017, we selected SNS-510 as a development candidate.

There are multiple PI3K pathway inhibitors in late stage development or approval for use in CLL, follicular lymphoma and other malignancies, but no other PDK1 inhibitor approved or in late stage development. We believe SNS-510 is a potential first-in-class compound with demonstrated inhibition of PI3K-dependent and independent pathways and a compelling in vitro and in vivo profile. SNS-510 has the potential for broad-spectrum single agent and combination activity in both solid tumor and hematologic malignancies.

TAK-580 (formerly MLN2480)

This pan-Raf inhibitor program had its origins in a collaboration agreement between Sunesis and Biogen. In March 2011, Biogen's rights to this program were exclusively assigned to Takeda. The Raf kinases (A-Raf, B-Raf and C-Raf) are key regulators of cell proliferation and survival within the MAPK pathway. Pan-RAF inhibitors such as TAK-580 are able to regulate MAPK pathway activation that are driven by RAF-monomer signaling, such as BRAF V600 mutations, and are uniquely positioned to also inhibit RAF dimer signaling, which can drive cancers with RAS mutations, non-V600 BRAF mutations, and RAF fusions.

In February 2018, an investigator-sponsored trial was initiated evaluating TAK-580 in Pediatric Low-Grade Glioma (PLGG), for which we believe the scientific rationale is compelling. PLGG accounts for nearly 30% of pediatric brain cancer, and Fusion-RAF proteins are present in a large proportion of these pediatric tumors. There is a significant unmet need for these children. The trial is ongoing.

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 Takeda 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.

Vosaroxin

Vosaroxin is an anti-cancer quinolone derivative that 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. ("Sumitomo") in 2003. The Phase 3 trial in patients with relapsed or refractory acute myeloid leukemia did not meet its primary endpoint of demonstrating a statistically significant improvement in overall survival.

We filed a marketing authorization application ("MAA") with the European Medicines Agency ("EMA") at the end of 2015 and had several interactions with the EMA in early 2017. As a result of these interactions, feedback from our CHMP rapporteurs and our retained regulatory consultants, and an internal assessment, we announced on May 1, 2017 the withdrawal of our MAA. In 2018 we conducted a thorough process with potential business partners to evaluate various development paths for vosaroxin and we continue to evaluate strategic alternatives.

License, Collaboration and Royalty Agreements

Licensing and Collaboration Agreements with Biogen and Takeda

Overview

In August 2004, we entered into the original collaboration agreement with Biogen (the "Biogen OCA") 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.

In June 2008, the parties agreed to terminate the research term and related funding. In March 2011, as part of a series of agreements among Sunesis, Biogen and Takeda, we entered into: (a) an amended and restated collaboration agreement with Biogen ("the Biogen Idec 1st ARCA"); (b) a license agreement with Millennium ("the Takeda Agreement"); and (c) a termination and transition agreement among Sunesis, Biogen and Takeda ("the Termination and Transition Agreement").

The Termination and Transition Agreement provided for the termination of Biogen's exclusive rights under the Biogen OCA to all discovery programs under such agreement other than for small molecule inhibitors of the human protein BTK and the permitted assignment to Takeda of all related Biogen collaboration assets and rights to Raf kinase and the human protein PDK1.

Biogen

In December 2013, we entered into a second amended and restated collaboration agreement with Biogen (the "Biogen 2nd ARCA"), which amended and restated the Biogen 1st ARCA, to provide us with an exclusive worldwide license to develop, manufacture and commercialize vecabrutinib, a BTK inhibitor synthesized under the Biogen 1st ARCA, solely for oncology indications. During the third quarter of 2017, we made a milestone payment of $2.5 million to Biogen upon the dosing of the first patient in a Phase 1b/2 study to assess the safety and activity of vecabrutinib in patients with advanced B-cell malignancies after two or more prior therapies, including ibrutinib or other covalent BTK inhibitors, and including patients with BTK C481 mutations. We may also be required to make royalty payments on product sales of vecabrutinib.

Takeda

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

In January 2014, we entered into an amended and restated license agreement with Takeda ("the Amended Takeda Agreement"), to provide us with an exclusive worldwide license to develop and commercialize preclinical inhibitors of PDK1. In connection with execution of the Amended Takeda 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, Takeda is developing the oral investigative drug TAK-580, and we may in the future receive up to $57.5 million in pre-commercialization, event-based payments related to the development by Takeda 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. TAK-580 is currently being studied in a Phase 1b/2 clinical study for children with Low-Grade Gliomas and other RAS/RAF/MEK/ERK Pathway Activated Tumors.

In-license Agreement with Sumitomo

In October 2003, we entered into an agreement with Sumitomo to acquire exclusive worldwide development and marketing rights for vosaroxin. In the future we may be required to make additional milestone payments of up to $6.5 million in aggregate to Sumitomo for (a) filing New Drug Applications ("NDA"), in the U.S. and Japan, and (b) for receiving regulatory approvals in these regions and the EU, 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.

If we discontinue seeking regulatory approval and/or the sale of the product in a region, we are required to return our 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.

Manufacturing

We rely 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 all of our active pharmaceutical ingredient ("API"), including vecabrutinib, SNS-510 and vosaroxin and the finished drug product ("FDP") incorporating the APIs. Vecabrutinib API and FDP are manufactured under master services agreements. SNS-510 API and FDP are manufactured under research and development agreements. We have supply agreements for vosaroxin API and FDP.

We currently rely on two contract manufacturers for vecabrutinib API and two for FDP. Three lots of API have been manufactured at a clinical scale. Scale-up to commercial scale has not been done. The cost to manufacture vecabrutinib at large scale is unknown.

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 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.

With respect to vecabrutinib, we are aware of a number of companies that are or may be pursuing different product candidates that could inhibit C481S-mutated BTK, including Aptose Biosciences Inc., ArQule, Inc., and Loxo Oncology, Inc. Moreover, numerous companies are also pursuing inhibitors of wild-type BTK, including AbbVie Inc. ("AbbVie"), with its drug IMBRUVICA®. Other companies with BTK inhibitors currently in development include AstraZeneca PLC, BeiGene, Ltd., EMD Merck, Gilead Sciences, Inc. ("Gilead"), Principia Biopharm Inc., and others in oncology and non-oncology indications. Other drugs that may compete to treat ibrutinib-refractory patients, including patients with C481S-mutated BTK in monotherapy or in combination, include; AbbVie's Bcl-2 inhibitor VENCLEXTA™, Gilead's Zydelig PI3K kinase inhibitor, TG Therapeutics, Inc.'s umbralisib PI3K inhibitor, Verastem's duvelisib PI3K inhibitor, and CAR-T cell therapies such as Novartis Kymriah® (tisagenlecleucel) and Gilead's Yescarta (axicabtagene ciloleucel).

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 vecabrutinib, SNS-510, TAK-580, vosaroxin or future drug candidates, if any. Historically, we have patented a wide range of technology, inventions and improvements related to our business. When appropriate, we seek 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. For example, we secured orphan drug designation for vosaroxin for the treatment of AML from the European Commission and from the FDA. For an approved medicine, such designation may, in the European Union, provide ten years of marketing exclusivity in all member countries, or seven years of market exclusivity in the U.S.

Vecabrutinib Patent Assets

U.S. Patent Nos. 8,785,440 B2 and 9,249,146 B2 cover a genus of compounds encompassing vecabrutinib and methods of use thereof, respectively, with expiry in 2030. Counterpart applications and patents are held in the U.S., Europe, and other countries, with expiry in 2030.

U.S. Patent No. 9,394,277 B2 covers a subgenus of compounds including vecabrutinib, and methods of use thereof. Counterpart applications and patents are held in the U.S., Europe, and other countries, with expiry in 2033.

U.S. Patent App. No. 16/319,506 covers a vecabrutinib succinic acid complex form and methods of use thereof. Counterpart applications are pending in Europe and other countries, with expiry in 2037. U.S. Patent App. No. 16/319,506 and counterpart applications were filed in January and February 2019 as national stage applications.

As of December 31, 2018, we own, co-own or have rights to approximately 88 granted U.S. and foreign patents, and approximately 51 pending U.S. and foreign applications, pertaining to vecabrutinib and compositions and uses thereof. The expiries of these granted patents and patents that may be granted range from 2030 to 2037. The patent count includes validated patents in Europe. The application count includes applications stemming from International Pat. App. No. PCT/US2017/012637 filed in January 2017 that entered the national stage after December 31, 2018.

SNS-510 Patent Assets

U.S. Patent No. 9,546,165 B2 and U.S. Patent No. 10,030,016, cover a genus of compounds including SNS-510, and methods of use thereof, respectively. Counterpart applications and patents are held in the U.S., Europe, and other countries, with expiry in 2030 (U.S. Patent No. 9,546,165 B2 expires in 2031 due to Patent Term Adjustment based on prosecution delay by the United States Patent and Trademark Office).

U.S. Patent App. No. 15/770,369 covers methods of using SNS-510. Counterpart applications are pending Europe and other countries, with expiry in 2036.

U.S. Patent App. No. 16/185,793 and International Patent App. No. PCT/US2018/060111 cover pharmaceutical compositions including SNS-510 and method of use thereof. The International application enters the national stage in May 2020, expiry in 2038.

As of December 31, 2018, we own, co-own or have rights to approximately 88 granted U.S. and foreign patents, and approximately 31 pending U.S. and foreign applications, pertaining to SNS-510 and compositions and uses thereof. The expiries of these granted patents and patents that may be granted range from 2030 to 2038. The patent count includes validated patents in Europe.

Vosaroxin Patent Assets

U.S. Patent Nos. 8,586,601 B2 and 8,138,202 B2, covering certain high purity vosaroxin compositions, have counterpart applications or granted patents in the U.S., EPO, and other major market countries. These patents and applications disclose and claim vosaroxin compositions, methods of their preparation, and methods of their therapeutic use. As of December 31, 2018, we own, co-own or have rights to approximately 49 granted U.S. and foreign patents, and approximately 18 pending U.S. and foreign applications, pertaining to vosaroxin compositions and uses thereof. The expiry of these granted patents and patents that may be granted is 2030.

General

While it is possible that patent term restoration and/or supplemental patent certificates could be available for some of these or other patents we own or control through licenses after possible approval of commercial product, we cannot guarantee that such additional protection will be obtained, and the expiration dates described here do not include such term restoration.

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 vecabrutinib, SNS-510, TAK-580, vosaroxin or future drug candidates, if any, or be required to obtain licenses to such patents or to develop or obtain alternative technology.

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. 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.

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 and foreign entities regulate research and development activities and the testing, manufacture, quality control, safety, efficacy, labeling, storage, recordkeeping, approval, advertising and promotion of our product candidates and any future drug candidates we may develop, if any. The application of these regulatory frameworks to the development, approval and commercialization of our drug candidates 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 implements regulations. The process required by the FDA before any of our drug candidates may be marketed in the U.S. 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 ("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 approvals 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.

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 ("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 ("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 safety-focused, multiple ascending dose Phase 1 clinical trial, often conducted in patients.
- *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 fee under the Prescription Drug User Fee Act ("PDUFA"), and the sponsor of an approved NDA is also subject to annual program fees, which 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 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. On December 22, 2017, the 2017 Tax Cuts and Jobs Act (the Tax Act) was enacted into law and the Orphan Drug tax credit was reduced from 50% to 25%. 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.

Other Regulatory Requirements

Any drugs manufactured or distributed by us, Biogen, Takeda, 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. 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. Failure to comply with these requirements can result in adverse publicity, warning letters, corrective advertising and potential civil and criminal penalties.

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 either the referral of an individual, or the 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.

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.

The federal Health Insurance Portability and Accountability Act of 1996 ("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. HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act ("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.

Additionally, the federal Physician Payments Sunshine Act, created under the Affordable Care Act ("ACA"), 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 annually report to the Centers for Medicare & Medicaid Services ("CMS"), 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. State and foreign laws also govern the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts. These laws may affect our sales, marketing and other promotional activities by imposing administrative and compliance burdens.

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. 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 a wide range of sanctions and penalties, potentially significant criminal and civil and/or administrative penalties, damages, fines, disgorgement, imprisonment, exclusion from participation in government healthcare programs, integrity obligations, 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. We are unable to predict whether we would be subject to actions under these laws or the impact of such actions. However, the cost of defending any such claims, as well as any sanctions imposed, could adversely affect our financial performance and disrupt our business operations.

Coverage and Reimbursement

Sales of pharmaceutical products, when and if approved for marketing, depend significantly on the availability of third-party coverage and adequate reimbursement. Third-party payors include government health administrative authorities, managed care providers, private health insurers and other organizations. These third-party payors are increasingly challenging the price and examining the cost-effectiveness of medical products and services, and significant uncertainty exists as to the coverage and reimbursement status of any product candidates for which we obtain regulatory approval. A payor's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Further, one payor's determination to provide coverage for a drug product does not assure that other payors will also provide coverage for the drug product. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development.

In addition, significant uncertainty exists as to the coverage and reimbursement status of newly approved healthcare products. We may need to conduct expensive clinical studies to demonstrate the comparative cost-effectiveness of our products. The product candidates that we develop may not be considered cost-effective. It is time consuming and expensive for us to seek reimbursement from third-party payors. Decreases in third-party reimbursement for our product candidates or a decision by a third-party payor not to cover our product candidates could reduce physician usage of our products once approved and have a material adverse effect on our sales, results of operations and financial condition. Coverage and adequate reimbursement may not be available or sufficient to allow us to sell our products on a competitive and profitable basis. Coverage policies and third-party reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more products for which we receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

Health Reform

The United States and some foreign jurisdictions are considering or have enacted a number of legislative and regulatory proposals to change the healthcare system in ways that could affect our ability to sell our products profitably. Among policy makers and payors in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and/or expanding access. In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives, such as the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively the ACA. Among the provisions of the ACA of importance to our business are that it: created an annual fee on any entity that manufactures or imports specified branded prescription drugs and biologic agents; increased the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program; extended a manufacturer's Medicaid rebate liability; expanded eligibility criteria for Medicaid programs; and created a new Medicare Part D coverage gap discount program. Some of the provisions of the ACA have yet to be implemented, and there have been judicial and Congressional challenges to certain aspects of the ACA, as well as recent efforts

by the Trump administration to repeal or replace certain aspects of the ACA. Since January 2017, President Trump signed two Executive Orders and other directives to delay the implementation of certain provisions of the ACA. Concurrently, Congress has considered legislation that would repeal or repeal and replace all or part of the ACA. While Congress has not passed comprehensive repeal legislation, it has enacted laws that modify certain provisions of the ACA such as removing penalties, starting January 1, 2019, for not complying with the ACA's individual mandate to carry health insurance and delaying the implementation of certain ACA-mandated fees. On December 14, 2018, a Texas U.S. District Court Judge ruled that the ACA is unconstitutional in its entirety because the "individual mandate" was repealed by Congress as part of the Tax Cuts and Jobs Act of 2017. The Texas U.S. District Court Judge, as well as the Trump administration and CMS, have stated that the ruling will have no immediate effect pending appeal of the decision.

Other legislative changes have been proposed and adopted since the ACA was enacted. These changes included the Budget Control Act of 2011, which caused aggregate reductions to Medicare payments to providers of up to 2% per fiscal year effective April 1, 2013 which, following passage of the Bipartisan Budget Act of 2015, as well as other legislative amendments to the statute, will stay in effect through 2027 unless additional Congressional action is taken. Additionally, the American Taxpayer Relief Act of 2012, among other things, further reduced Medicare payments to several types of providers.

There has also been increasing legislative and enforcement interest in the United States with respect to specialty drug pricing practices. Specifically, there have been several recent U.S. Congressional inquiries and proposed federal and state legislation designed to, among other things, bring more transparency to drug pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drugs. For example, at the federal level, the Trump administration released a "Blueprint" to lower drug prices and reduce out of pocket costs of drugs that contains additional proposals to increase manufacturer competition, increase the negotiating power of certain federal healthcare programs, incentivize manufacturers to lower the list price of their products and reduce the out of pocket costs of drug products paid by consumers. On January 31, 2019, the HHS Office of Inspector General proposed modifications to the federal Anti-Kickback Statute discount safe harbor for the purpose of reducing the cost of drug products to consumers which, among other things, if finalized, will affect discounts paid by manufacturers to Medicare Part D plans, Medicaid managed care organizations and pharmacy benefit managers working with these organizations. While some of these and other proposed measures may require authorization through additional legislation to become effective, Congress and the Trump administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs.

Additionally, on May 30, 2018, the Trickett Wendler, Frank Mongiello, Jordan McLinn, and Matthew Bellina Right to Try Act of 2017, or the Right to Try Act, was signed into law. The law, among other things, provides a federal framework for certain patients to access certain investigational new drug products that have completed a Phase I clinical trial and that are undergoing investigation for FDA approval. Under certain circumstances, eligible patients can seek treatment without enrolling in clinical trials and without obtaining FDA permission under the FDA expanded access program. There is no obligation for a pharmaceutical manufacturer to make its drug products available to eligible patients as a result of the Right to Try Act.

Foreign Regulation

In addition to regulations in the U.S., we are subject to foreign regulations governing clinical trials and commercial sales and distribution of or our drug candidates. 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 ("MS"), and the applicable Ethics Committees ("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 we may proceed with the clinical trial.

To obtain a marketing authorization of a drug in the European Union, we must submit an MAA under the centralized procedure. The centralized procedure provides for the grant of a single marketing authorization from the European Commission following a favorable opinion by the CHMP of the EMA that is valid in the European Economic Area (the "EEA"), which includes 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 ("PIP"), agreed with the EMA's Pediatric Committee ("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 a marketing authorization is obtained for a pediatric indication 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.

In addition to regulations in the United States and the European Union, 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 expect to continue to incur significant development expenses related to the development of vecabrutinib and our other drug candidates.

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, 2018, our workforce consisted of 29 full-time equivalent employees, of which 15 are engaged in research and development and 14 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 (the "SEC"), and any references to our websites are intended to be inactive textual references only. The following filings are available through our website as soon as reasonably practicable 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.

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, as each of these risks could adversely affect our business, operating results and financial conditions. 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 continue the development of vecabrutinib, SNS-510, and our other programs.

We will need to raise substantial additional capital to:

- fund additional nonclinical and clinical trials of vecabrutinib prior to any regulatory filing for approval;
- fund preclinical and clinical development of SNS-510;
- 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 EMA, FDA 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;
- costs of supporting our arrangements with Biogen, Takeda 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 vecabrutinib, SNS-510, 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 vecabrutinib, SNS-510 or other development programs.

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, 2018 and 2017 were $26.6 million and $35.5 million, respectively. As of December 31, 2018, we had an accumulated deficit of $659.5 million. We do not currently have any products that have been approved for marketing, and we expect to incur significant losses for the foreseeable future as we continue to incur substantial development and general and administrative expenses related to our operations. We have prioritized development funding on kinase inhibitors with a focus on vecabrutinib. We have a limited number of products that are still in the early stages of development and will require significant additional investment. 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 one agreement, the Amended Takeda Agreement, which includes certain pre-commercialization event-based and royalty payments. We cannot predict if our collaborator will continue development or whether we will receive any such payments under these agreements in the foreseeable future, or at all.

We are unable to predict when we will generate revenue from the sale of products, if at all. In the absence of additional sources of capital or partnering opportunity, which may not be available to us on acceptable terms, or at all, the development of vecabrutinib or future product candidates 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.

There is substantial doubt about our ability to continue as a going concern.

We adopted Financial Accounting Standards Board ("FASB") Accounting Standards Update ("ASU") No. 2014-15, Presentation of Financial Statements - Going Concern (Subtopic 205-40) effective December 31, 2016, which requires us to make certain disclosures if we conclude that there is substantial doubt about our ability to continue as a going concern within one year from the date our financial statements contained in this Annual Report on Form 10-K are available to be issued.

We have incurred significant losses and negative cash flows from operations since our inception, and as of December 31, 2018, had cash and cash equivalents totaling $13.7 million and an accumulated deficit of $659.5 million. We expect our cash and cash equivalents of $13.7 million plus the approximately $18.4 million from the public offering in January 2019, are not sufficient to support our operations for a period of twelve months from the date our financial statements contained in this Annual Report on Form 10-K are available to be issued. We will require additional financing to fund working capital, repay debt and pay our obligations as they come due. Additional financing might include one or more offerings and one or more of a combination of equity securities, debt arrangements or partnership or licensing collaborations. However, there can be no assurance that we will be successful in acquiring additional funding at levels sufficient to fund our operations or on terms favorable to us. These conditions raise substantial doubt about our ability to continue as a going concern for a period of one year from the date our financial statements contained in this Annual Report on Form 10-K are available to be issued. If we are unsuccessful in our efforts to raise additional financing in the near term, we will be required to significantly reduce or cease operations. The accompanying financial statements have been prepared assuming we will continue to operate as a going concern, which contemplates the realization of assets and the settlement of liabilities in the normal course of business. The consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts of liabilities that may result from uncertainty related to our ability to continue as a going concern.

The development of vecabrutinib, SNS-510, or other product candidates could be halted or significantly delayed for various reasons; our clinical trials for vecabrutinib, SNS-510, or other product candidates may not lead to regulatory approval.

Our product candidates are vulnerable to the risks of failure inherent in the drug development process. 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.

Our product candidates may experience toxicities that lead to a maximum tolerated dose that is not effective. If this were the case for vecabrutinib, for example, such a result would delay or prevent further development, which would severely and adversely affect our financial results, business and business prospects.

We do not know whether our current or any future clinical trials with vecabrutinib, SNS-510, 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 and completion of future clinical trials could be substantially delayed or prevented by several factors, including:

- delays or failures to raise additional funding;
- delays or failures in obtaining regulatory approval to commence a clinical trial;
- delays or failures in obtaining approval from independent IRBs or ECs 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.
- delays or failures in obtaining sufficient clinical materials, including any of our product and any drugs to be tested in combination with our products;
- failure of third parties such as Contract Research Organizations and medical institutions to perform their contractual duties and obligations;
- 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;
- 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 for reasons such as change in protocol. 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 parties to supply us with our API and FDP. If we fail to obtain sufficient quantities of these materials, the development and potential commercialization of vecabrutinib, SNS-510 and future products, if any, could be halted or significantly delayed.

We currently rely on contract manufacturers for all API and FDP. Additional third-party contract manufacturing organizations are relied on to manufacture key starting materials and intermediates required in the manufacture of API. We have limited manufacturing experience, and we have not yet scaled-up to commercial scale. The cost to manufacture at commercial scale may materially exceed the cost of clinical-stage manufacturing.

If our third-party API or FDP manufacturers are unable or unwilling to produce the 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 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, EMA or other corresponding state agencies 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 API and FDP needs for the foreseeable future.

Our products require precise, high quality manufacturing. 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, EMA or other 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 our products, cost overruns or other problems that could seriously harm our business. This would deprive us of potential product revenue and result in additional losses.

The stability of API and FDP is also a key risk, as we must demonstrate that products continue to meet product specifications over time. There can be no assurances that future lots will meet stability requirements and if they do not, development and commercialization of our products may be delayed.

The failure to enroll patients for clinical trials may cause delays in developing vecabrutinib or other product candidates.

We may encounter delays if we are unable to enroll enough patients to complete clinical trials of vecabrutinib or other product candidates. 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. In a Phase 1 dose escalation, slots are assigned to sites to avoid over-enrolling. After allocating a slot to a patient, patients may be unable to commence the study due to progressive disease or may withdraw consent. Patients participating in our trials may come off study due to progressive disease, or may elect to leave our trials to switch to alternative treatments that are available to them, either commercially or on an expanded access basis, or in other clinical 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 vecabrutinib, SNS-510, or future product candidates in Europe, the United States or in other territories, 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. Even if we believe preclinical or clinical data from preclinical studies and clinical trials are promising, such data may not be sufficient to support approval by the FDA, EMA and other regulatory authorities. Results in preclinical studies may not be predictive of results in human clinical trials and early stage human clinical trials may not be predictive of results in later, larger trials.

Our product candidates, the methods used to deliver them or their dosage levels may cause undesirable side effects or have other properties that could delay or prevent their regulatory approval, limit the commercial profile of an approved label or result in significant negative consequences following any regulatory approval.

Undesirable side effects caused by our product candidates, their delivery methods or dosage levels could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or other comparable foreign regulatory authority. As a result of safety or toxicity issues that we may experience in our clinical trials, we may not receive approval to market any product candidates, which could prevent us from ever generating revenues or achieving profitability. Results of our trials could reveal an unacceptably high severity and incidence of side effects, or side effects outweighing the benefits of our product candidates. In such an event, our trials could be suspended or terminated and the FDA or comparable foreign regulatory authorities could order us to cease further development of or deny approval of our product candidates for any or all targeted indications. The drug-related side effects could affect patient recruitment or the ability of enrolled subjects to complete the trial or result in potential product liability claims.

Additionally, if any of our product candidates receives regulatory approval, and we or others later identify undesirable side effects caused by such product, a number of potentially significant negative consequences could result, including that:

- we may be forced to suspend marketing of that product;
- regulatory authorities may withdraw or change their approvals of that product;
- regulatory authorities may require additional warnings on the label or limit access of that product to selective specialized centers with additional safety reporting and with requirements that patients be geographically close to these centers for all or part of their treatment;
- we may be required to conduct post-marketing studies;
- we may be required to change the way the product is administered;
- we could be sued and held liable for harm caused to subjects or patients; and
- our reputation may suffer.

Any of these events could diminish the usage or otherwise limit the commercial success of our product candidates and prevent us from achieving or maintaining market acceptance of the affected product candidate, if approved by applicable regulatory authorities.

We may not be able to obtain or maintain orphan drug exclusivity for our product candidates.

Regulatory authorities in some jurisdictions, including the United States and Europe, may designate drugs for relatively small patient populations as orphan drugs. Under the Orphan Drug Act, the FDA may designate a product as an orphan drug if it is a drug intended to treat a rare disease or condition, which is generally defined as a patient population of fewer than 200,000 individuals annually in the United States. Both the FDA and the EMA have granted us orphan designation for vosaroxin.

Generally, if a product with an orphan drug designation subsequently receives the first regulatory approval for the indication for which it has such designation, the product is entitled to a period of marketing exclusivity, which precludes the EMA or the FDA from approving another marketing application for the same drug for that time period. The applicable period is seven years in the United States and ten years in Europe. The European exclusivity period can be reduced to six years if a drug no longer meets the criteria for orphan drug designation or if the drug is sufficiently profitable so that market exclusivity is no longer justified. Orphan drug exclusivity may be lost if the FDA or EMA determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the drug to meet the needs of patients with the rare disease or condition.

Even if we obtain orphan drug exclusivity for a product, that exclusivity may not be maintained or effectively protect the product from competition because different drugs can be approved for the same condition. Even after an orphan drug is approved, the FDA can subsequently approve a new drug for the same condition if the FDA concludes that the later drug is clinically superior in that it is shown to be safer, more effective or makes a major contribution to patient care.

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, vecabrutinib or other product candidates.

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 vecabrutinib and other product candidates. 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 vecabrutinib, SNS-510, or other product candidates.

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, our licensors, collaboration partners, or any employees thereof have misappropriated their intellectual property, or otherwise claim that we, our licensors, or collaboration partners are using technology claimed in issued and unexpired patents, or other proprietary rights, owned or controlled by the third party, even if the technology is regarded as our own intellectual property, we may need to obtain a license, enter into litigation to challenge the validity or enforceability of the patents or other rights or incur the risk of litigation in the event that a third party asserts that we infringe its patents or have misappropriated other rights.

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 vecabrutinib, SNS-510, or any future product candidates infringe a third party's patent or other proprietary rights;
- a court order prohibiting us from selling or licensing vecabrutinib, SNS-510, 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 vecabrutinib, vosaroxin or other product candidates, 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 B-cell malignancies and AML. Many of our competitors have significantly greater financial, manufacturing, marketing and drug development resources than we do. Large pharmaceutical companies in particular have extensive experience in the clinical testing of, obtaining regulatory approvals for, and marketing drugs.

We expect competition during the development and commercialization of all of our products in all of their potential future indications. Competition is likely to increase as additional products are developed and approved in various patient populations. If our competitors market products that are more effective, safer, and/or less expensive than our 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 any of our future product candidates obsolete.

Our proprietary rights may not adequately protect vecabrutinib, SNS-510, or future product candidates, if any.

We use patents, trade secrets, trademarks, service marks, and marketing exclusivity administered by regulatory authorities to protect our products from generic copies of our products. Our ability to build and maintain our proprietary position for any future drug candidates will depend on our success in obtaining effective patent 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 vecabrutinib, SNS-510, or other product candidates. 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.

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, throughout the world, or at all. Our existing patents and any future patents we obtain may not be sufficiently broad, valid, enforceable, or extend globally in order to prevent others from practicing our technologies or from developing competing products and technologies. Further, obtaining and maintaining patent protection relies on compliance with various procedural requirements imposed by governmental patent agencies, including, for example, mandatory document submissions and fee payments. Failure to comply with these requirements may reduce or eliminate opportunities for, or rights to, patent protection. 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. Similarly, we do not exclusively control patent prosecution in jurisdictions outside of the United States. 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 in addition to the related cost, 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;
- we, our licensors, or our collaboration partners will be subject to claims challenging the inventorship, ownership, or rights to claim priority with regard to our patents and other intellectual property; or
- any patents or other proprietary rights of third parties will have an adverse effect on our business.

We may need to commence or defend administrative proceedings or 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 a proceeding or litigation affecting proprietary rights we own or have licensed could present significant risk of competition for drug candidates that we market or seek to develop. Any adverse outcome in a proceeding or 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.

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.

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 and enforce. 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.

There can be no assurance that the confidentiality and other agreements we put in place with employees, consultants, and partners 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 do not know whether the patent term for any drug candidate or product will offer protection for an adequate or profitable amount of time. We do not know whether patent term extensions and data exclusivity periods will be available in the future for any or all of the patent rights we own or have licensed. While it is possible that patent term restoration and/or supplemental patent certificates would be available for some of the 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. However, patent expiration dates described here for U.S. patents may reflect patent term adjustments by the United States Patent and Trademark Office or terminal disclaimers over related patents or patent applications. Our obligation to pay royalties to licensors may extend beyond the patent expiration, which would further erode the profitability of our products.

Intellectual property rights may not address all potential threats to our competitive position for at least the reasons described above and below.

We may not succeed in finding a third party to license and complete development of vosaroxin, which may result in completely discontinuing development and returning rights to our licensor, Sumitomo Dainippon.

We are actively evaluating strategic alternatives, including seeking a partner to license vosaroxin for the purpose of completing development and commercializing the product. There is no certainty that we will find a commercial or financial partner to fund and undertake development, and failure to find such a partner will result in the complete discontinuation of vosaroxin development. In this case, the core IP will revert to Sumitomo Dainippon Pharma Co., Ltd. and there will be no possibility of any future upside from the product. We may also incur costs to wind down all of our activities related to this product.

Even if we do secure a partner for vosaroxin, there is no guarantee the transaction will result in significant revenue or other upside for Sunesis. Following the purchase of the revenue participation right by RPI Finance Trust ("RPI"), an entity related to Royalty Pharma, 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. Upon marketing approval of vosaroxin, Western Alliance, the Collateral Agent (the "Collateral Agent") of our loan and security agreement (the "Loan Agreement"), with Bridge Bank, a division of Western Alliance Bank ("Western Bank") and Solar Capital Ltd ("Solar Capital", and collectively with Western Bank, the "Lenders"), for the benefit of the Lenders under our Loan Agreement, will also have a perfected security interest in our intellectual property rights relating to vosaroxin. We will not realize any gain from a vosaroxin licensing agreement until all of our obligations are met.

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 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 confidentiality of certain proprietary information and knowledge 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 vecabrutinib, SNS-510, and other product candidates, 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 may lose key employees or have difficulty hiring employees to fill key roles.

A loss of key personnel or difficulty in hiring employees to fill key roles could slow or prevent our ability to develop and commercialize our products. For example, we currently have an ongoing search for a Chief Executive Officer. If we have difficulty hiring a Chief Executive Officer it may adversely impact our future prospects.

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, or a failure or dispute of reporting or diligence efforts 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, Takeda, 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.

We and our current collaboration partners have certain reporting and diligence obligations to each other, and failure to report, or disagreement over the impact of information reported, or a lack of diligent efforts, or dispute of the impact of the efforts, may be adverse to our interests, the development of the product candidates and could lead to an ultimate withdrawal or dispute of the rights to a product candidate covered by the license or collaboration agreement.

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. Our Directors and Officers insurance provides certain coverage to our board members and executive officers, but the cost of coverage may be prohibitively expensive or not provide enough coverage.

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

Our Loan Agreement and the two amendments entered into in 2017 (the "Amendments") contain a variety of affirmative covenants, including, without limitation, certain information delivery requirements, obligations to maintain certain insurance and certain notice requirements, and negative covenants, including, without limitation, restrictions on incurring certain additional indebtedness, making certain asset dispositions, entering into certain mergers, acquisitions or other business combination transactions or incurring any non-permitted lien or other encumbrance on our assets. Upon the occurrence of an event of default under the Loan Agreement and the Amendments (subject to cure periods for certain events of default), all amounts owed by us thereunder would begin to bear interest at a rate that is 5.0% higher than the rate that would otherwise be applicable and may be declared immediately due and payable by the Collateral Agent. In the event of default by us, the Lenders would be entitled to exercise their remedies thereunder, including the right to accelerate the debt, upon which we may be required to repay all amounts then outstanding under the Loan Agreement and the Amendments, which could harm our financial condition.

The Amendments modified the loan repayment terms to allow us to extend the interest-only period to January 1, 2019, upon receipt of receipt of at least Twenty-Five Million dollars ($25,000,000) in unrestricted cash proceeds on or prior to September 15, 2018. We qualified for the extension and the interest-only period was extended to January 1, 2019. We began making principal payments in the beginning of 2019. We will require additional financing to repay our debt and may be unable to repay the principal amounts under the Loan Agreement as they come due, which could harm our financial condition.

The Collateral Agent, for the benefit of the Lenders, has a perfected security interest in substantially all of our property, rights and assets, except for intellectual property, to secure the payment of all amounts owed to the Lenders under the Loan Agreement.

We are exposed to risks related to foreign currency exchange rates.

Some of our costs and expenses are denominated in foreign currencies. 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.

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.

Our systems are potentially vulnerable to data security breaches, whether by employees or others, that may expose sensitive data to unauthorized persons. If we are unable to prevent such data security breaches or implement satisfactory remedial measures, our operations could be disrupted, and we may suffer loss of reputation, financial loss and other regulatory penalties because of lost or misappropriated information. In addition, these breaches and other inappropriate access can be difficult to detect, and any delay in identifying them may lead to increased harm of the type described above. Moreover, the prevalent use of mobile devices that access confidential information increases the risk of data security breaches, which could lead to the loss of confidential information, trade secrets or other intellectual property. While we have implemented security measures to protect our data security and information technology systems, such measures may not prevent such events. Such disruptions and breaches of security could have a material adverse effect on our business, financial condition and results of operations.

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 our product candidates.

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, and 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 or Europe until we receive approval of an MAA or NDA for these respective territories, or in any other country without the equivalent marketing approval from such country. We have not received marketing approval for vecabrutinib in any jurisdiction. In addition, failure to comply with FDA, EMA, 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 MAAs, NDAs, supplements to approved MAAs, NDAs or their equivalents in other territories.

Regulatory approval of an MAA or NDA or their equivalent in other territories 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.

The FDA, EMA or other 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, EMA or other foreign regulatory authority might not approve our or our third-party manufacturers' processes or facilities; or
- the FDA, EMA or other 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 vecabrutinib, SNS-510, or other 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, 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 vecabrutinib, SNS-510, or other product candidates, the market may not be receptive.

Even if one of our product candidates 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:

- the timing of market introduction of competitive products;
- the efficacy of our product;
- the prevalence and severity of any side effects;
- the potential advantages or disadvantages over alternative treatments;

- the strength of marketing and distribution support;
- the price of the product, both in absolute terms and relative to alternative treatments; and
- the availability of reimbursement from health maintenance organizations and other third-party payors.

If vecabrutinib, SNS-510, or other product candidates fail 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 vecabrutinib, SNS-510, or any other future product candidate, we will be subject to ongoing FDA, EMA and other regulatory obligations and continued regulatory review, which may result in significant additional expense and limit our ability to commercialize vecabrutinib, SNS-510, or any other future product candidate.

Any regulatory approvals that we or our potential future collaboration partners receive for vecabrutinib, SNS-510, 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 manufacturing, 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.

The FDA and other agencies, including the Department of Justice ("DOJ"), closely regulate and monitor the post-approval marketing and promotion of products to ensure that they are marketed and distributed only for the approved indications and in accordance with the provisions of the approved labeling. The FDA and DOJ impose stringent restrictions on manufacturers' communications regarding off-label use and if we do not market our products for their approved indications, we may be subject to enforcement action for off-label marketing. Violations of the Federal Food, Drug, and Cosmetic Act and other statutes, including the False Claims Act, relating to the promotion and advertising of prescription drugs may lead to investigations and enforcement actions alleging violations of federal and state health care fraud and abuse laws and state consumer protection laws.

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, Europe or other territories. If we are not able to maintain regulatory compliance, we might not be permitted to market our future products and we may not achieve or sustain profitability. Other penalties for failing to comply with regulatory requirements include restrictions on such products, manufacturers or manufacturing processes; restrictions on the labeling or marketing of a product; restrictions on distribution or use of a product; requirements to conduct post-marketing studies or clinical trials; warning letters or untitled letters; withdrawal of the products from the market; refusal to approve pending applications or supplements to approved applications that we submit; recall of products; damage to relationships with any potential collaborators; unfavorable press coverage and damage to our reputation; fines, restitution or disgorgement of profits or revenues; suspension or withdrawal of marketing approvals; refusal to permit the import or export of our products; product seizure; injunctions or the imposition of civil or criminal penalties; and litigation involving patients using our products. Additionally, failure to comply with the European Union's requirements regarding the protection of personal information also can lead to significant penalties and sanctions.

The coverage and reimbursement status of newly approved drugs is uncertain and may be impacted by current and future legislation, and failure to obtain adequate coverage and reimbursement could limit our ability to market our product candidates 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 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, in the United States and some foreign jurisdictions, there have been a number of legislative or regulatory efforts to control or reduce healthcare costs or reform government healthcare programs that could result in lower prices or rejection of our future products. Such efforts have resulted in several recent United States congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for products.

For example, at the federal level, the Trump administration released a "Blueprint" to lower drug prices and reduce out of pocket costs of drugs that contains additional proposals to increase manufacturer competition, increase the negotiating power of certain federal healthcare programs, incentivize manufacturers to lower the list price of their products and reduce the out of pocket costs of drug products paid by consumers. On January 31, 2019, the U.S. Department of Health and Human Services, Office of Inspector General, proposed modifications to the federal Anti-Kickback Statute discount safe harbor for the purpose of reducing the cost of drug products to consumers which, among other things, if finalized, will affect discounts paid by manufacturers to Medicare Part D plans, Medicaid managed care organizations and pharmacy benefit managers working with these organizations. While some of these and other proposed measures may require authorization through additional legislation to become effective, Congress and the Trump administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs. Changes in coverage and reimbursement policies or healthcare cost containment initiatives that may limit or restrict reimbursement for our future products may reduce any future product revenue.

Additionally, in March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, or collectively the ACA, was enacted, which made a number of substantial changes in the way healthcare is financed by both governmental and private insurers. In the years since its enactment, there have been, and continue to be, significant developments in, and continued legislative activity around, attempts to repeal or repeal and replace the ACA. While Congress has not passed comprehensive repeal legislation, it has enacted laws that modify certain provisions of the ACA such as removing penalties, starting January 1, 2019, for not complying with the ACA's individual mandate to carry health insurance and delaying the implementation of certain ACA-mandated fees. On December 14, 2018, a Texas U.S. District Court Judge ruled that the ACA is unconstitutional in its entirety because the "individual mandate" was repealed by Congress as part of the TCJA. While the Texas U.S. District Court Judge, as well as the Trump administration and CMS, have stated that the ruling will have no immediate effect pending appeal of the decision, it is unclear how this decision, subsequent appeals, and other efforts to repeal and replace the ACA will impact the ACA and our business and operations.

The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize our products.

Our relationships with healthcare providers, clinical investigators, and third party payors will be subject to applicable anti-kickback, fraud and abuse and other healthcare laws and regulations, which, in the event of a violation, could expose us to criminal sanctions, civil penalties, contractual damages, reputational harm and diminished profits and future earnings.

Healthcare providers, clinical investigators, and third party payors will play a primary role in the recommendation and prescription of any drug candidates for which we obtain marketing approval. Our current and future arrangements with healthcare providers, clinical investigators and third party payors may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we market, sell and distribute any products for which we obtain marketing approval. Restrictions under applicable state, federal and foreign healthcare laws and regulations include the following:

- 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 either the referral of an individual, or the 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;
- 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;
- HIPAA prohibits, 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;
- HIPAA, as amended by the HITECH and its implementing regulations, among other things, imposes certain requirements relating to the privacy, security and transmission of individually identifiable health information. HITECH, among other things, 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; 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 to enforce the federal HIPAA laws;

- the federal Physician Payments Sunshine Act requires 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 annually report to CMS 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; and
- analogous local, state and foreign laws and regulations, such as state anti-kickback and false claims laws, transparency statutes, and privacy and security laws. Such laws may be broader than the federal law, including that they may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by third party payors, including private insurers. There also are an increasing number of state laws that require manufacturers to file reports with states regarding drug pricing and marketing information, tracking and reporting of gifts, compensation, other remuneration and items of value provided to health care professionals and health care entities, or marketing expenditures; require pharmaceutical companies to, among other things, establish and implement commercial compliance programs or codes of conducts; and/or require a pharmaceutical company's sales representatives to be registered or licensed by the state or local governmental entity. State and foreign laws also govern the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. 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 a wide range of sanctions and penalties, including potentially significant criminal, and civil and/or administrative penalties, damages, fines, disgorgement, imprisonment, exclusion from participation in government healthcare programs, integrity obligations, 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. We are unable to predict whether we would be subject to actions under these laws or the impact of such actions. However, the cost of defending any such claims, as well as any sanctions imposed, could adversely affect our financial performance and disrupt our business operations.

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

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. 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 our products to other available therapies. If reimbursement 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.

The comprehensive tax reform bill could adversely affect our business and financial condition.

On December 22, 2017, the President signed into law tax legislation, or the Tax Act, which significantly reforms the Internal Revenue Code of 1986, as amended. The Tax Act, among other things, contains significant changes to corporate taxation, including reduction of the corporate tax rate from a top marginal rate of 35% to a flat rate of 21%; limitation of the tax deduction for interest expense to 30% of adjusted earnings (except for certain small businesses); limitation of the deduction of net operating losses generated in tax years beginning after December 31, 2017 to 80% of taxable income, indefinite carryforward of net operating losses generated in tax years after 2018 and elimination of net operating loss carrybacks; changes in the treatment of offshore earnings regardless of whether they are repatriated; current inclusion in U.S. federal taxable income of certain earnings of controlled foreign corporations, mandatory capitalization of research and development expenses beginning in 2022; immediate deductions for certain new investments

instead of deductions for depreciation expense over time; further deduction limits on executive compensation; and modifying, repealing and creating many other business deductions and credits, including the reduction in the orphan drug credit from 50% to 25% of qualifying expenditures.

We continue to examine the impact the Tax Act may have on our business. Notwithstanding the reduction in the corporate income tax rate, the overall impact of the Tax Act is uncertain and our business and financial condition could be adversely affected. The impact of the Tax Act on holders of our common stock is also uncertain and could be adverse.

Our ability to use net operating loss carryforwards to offset future taxable income, and our ability to use tax credit carryforwards, may be subject to certain limitations.

Our ability to use our federal and state net operating losses, or NOLs, to offset potential future taxable income and related income taxes that would otherwise be due is dependent upon our generation of future taxable income, and we cannot predict with certainty when, or whether, we will generate sufficient taxable income to use all of our NOLs.

As of December 31, 2018, we reported U.S. federal and state NOLs of approximately $448.2 million and $288.3 million, respectively. Our federal NOLs generated prior to 2018 will continue to be governed by the NOL tax rules as they existed prior to the adoption of the Tax Act, which means that generally they will expire 20 years after they were generated if not used prior thereto. Many states have similar laws, and our state NOLs will begin to expire in 2028. Accordingly, these federal and state NOLs could expire unused and be unavailable to offset future income tax liabilities. Under the Tax Act, federal NOLs incurred in 2018 and in future years may be carried forward indefinitely, but the deductibility of such federal NOL's is limited to 80% of current year taxable income. It is uncertain if and to what extent various states will conform to the Tax Act.

In addition, under Section 382 of the Internal Revenue Code of 1986, as amended, or the Code, our ability to utilize these NOLs and other tax attributes, such as federal tax credits, in any taxable year may be limited if we have experienced an "ownership change." Generally, a Section 382 ownership change occurs if one or more stockholders or groups of stockholders who owns at least 5% of a corporation's stock increases its ownership by more than 50 percentage points over its lowest ownership percentage within a three-year testing period. Similar rules may apply under state tax laws. Any such material limitation or expiration of our NOLs may harm our future operating results by effectively increasing our future tax obligations.

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 2018, our common stock traded as low as $0.20 and as high as $7.69. Factors that could cause continued volatility in the market price of our common stock include, but are not limited to:

- all the other risks mentioned herein, including but not limited to our ability to raise additional capital to fund our operations and complete our clinical development plans, compliance with government regulations, the safety and efficacy of our products, and our ability to protect our intellectual property;
- announcements relating to restructuring and other operational changes;
- market conditions in the pharmaceutical, biopharmaceutical and biotechnology sectors;
- issuance of new or changed securities analysts' reports or recommendations;
- announcements relating to our arrangements with Biogen, Takeda or RPI;
- actual and anticipated fluctuations in our quarterly operating results;
- deviations in our operating results from the estimates of analysts;
- litigation or public concern about the safety of future products, if any;
- failure to develop or sustain an active and liquid trading market for our common stock;
- short-selling or manipulation of our common stock by investors;
- sales of our common stock by our officers, directors or significant stockholders; and
- additions or departures of key personnel.

Our failure to meet the continued listing requirements of The Nasdaq Capital Market could result in a delisting of our common stock.

Our common stock is listed on The Nasdaq Capital Market, which imposes, among other requirements a minimum bid requirement. Our common stock traded for less than $1.00 for 30 consecutive trading days, and we received notice of this from the Listing Qualifications Staff of The Nasdaq Stock Market LLC on January 11, 2019. Under Nasdaq Listing Rule 5810(c)(3)(A), we have been granted a 180 calendar day grace period, or until July 10, 2019, to regain compliance with the minimum bid price requirement. The minimum bid price requirement will be met if our common stock has a minimum closing bid price of at least $1.00 per share for a minimum of 10 consecutive business days during the 180 calendar day grace period. There can be no assurance that we will be able to regain compliance or that Nasdaq will grant us a further extension of time to regain compliance, if necessary.

The delisting of our common stock from Nasdaq may make it more difficult for us to raise capital on favorable terms in the future, or at all. Such a delisting would likely have a negative effect on the price of our common stock and would impair your ability to sell or purchase our common stock when you wish to do so. Further, if our common stock were to be delisted from The Nasdaq Capital Market, our common stock would cease to be recognized as a covered security and we would be subject to additional regulation in each state in which we offer our securities. Moreover, there is no assurance that any actions that we take to restore our compliance with the Nasdaq minimum bid requirement would stabilize the market price or improve the liquidity of our common stock, prevent our common stock from falling below the Nasdaq minimum bid price required for continued listing again, or prevent future non-compliance with Nasdaq's listing requirements.

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.

Future sales and issuances of our common stock or rights to purchase common stock, including pursuant to our equity incentive plans, could result in additional dilution of the percentage ownership of our stockholders and could cause our stock price to fall.

We expect that significant additional capital will be needed in the future to continue our planned operations. To raise capital, we may sell substantial amounts of common stock or securities convertible into or exchangeable for common stock in one or more transactions at prices and in a manner we determine from time to time, including pursuant to our Controlled Equity Offering℠ sales agreement ("the Sales Agreement"), with Cantor Fitzgerald & Co. ("Cantor"), or any similar arrangements into which we may enter. These future issuances of common stock or common stock-related securities, together with the exercise of outstanding options and any additional shares issued in connection with acquisitions or in-licenses, if any, may result in material dilution to our investors. Such sales may also result in material dilution to our existing stockholders, and new investors could gain rights, preferences and privileges senior to those of holders of our common stock.

Pursuant to our equity incentive plans, our compensation committee is authorized to grant equity-based incentive awards to our employees, non-employee directors and consultants. Future grants of RSUs, options and other equity awards and issuances of common stock under our equity incentive plans will result in dilution and may have an adverse effect on the market price of our common stock.

If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, our stock price and trading volume could decline.

The trading market for our common stock will depend in part on the research and reports that securities or industry analysts publish about us and our business. In the event securities or industry analysts who cover us downgrade our stock or publish unfavorable research about us or our business, our stock price would likely decline. If one or more of these analysts cease coverage of our company or fail to publish reports on us regularly, demand for our stock could decrease, which might cause our stock price and trading volume to decline.

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. The lease was entered into in January 2014 and was amended several times since 2014. The lease was last amended in December 2017 to extend the expiration date to June 30, 2021, with an option to extend the lease for two additional years.

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."

As of March 1, 2019, there were approximately 132 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.

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.

Recent Sales of Unregistered Securities

There were no unregistered sales of equity securities by us during the year ended December 31, 2018.

ITEM 6. *SELECTED FINANCIAL DATA*

We are a smaller reporting company as defined by Rule 12b-2 of the Securities Exchange Act of 1934 and are not required to provide the information under this item.

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, 2018 and results of operations for the year ended December 31, 2018 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 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 expectations for gaining marketing approval in the United States, including the continued development and commercialization of vecabrutinib (formerly SNS-062), SNS-510, TAK-580, vosaroxin, and other product candidates, the timing of our Phase 1b/2 trial of vecabrutinib, 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, including any partnering arrangements related to further vosaroxin development, 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

Sunesis Pharmaceutical, Inc. ("Sunesis" or the "Company") is a biopharmaceutical company focused on the development of new targeted inhibitors for the treatment of solid and hematologic cancers. Our 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.

Our lead program is vecabrutinib, a non-covalent inhibitor of Bruton's Tyrosine Kinase, or BTK. In clinical trials, vecabrutinib has shown activity against both wild type and C481S-mutated BTK, the most common mutation associated with resistance to ibrutinib. Vecabrutinib is being studied in a Phase 1b/2 clinical trial to assess safety and activity in patients with advanced B-cell malignancies after two or more prior therapies, including ibrutinib or another covalent BTK inhibitor where approved for the disease. The Phase 1b portion of the study is a dose escalation component that will proceed to define a maximum tolerated dose and/or a recommended Phase 2 dose. Upon identifying the Phase 2 dose, the Phase 2 portion will further explore clinical activity and safety in disease- and mutation-specific cohorts, including patients with and without BTK C481 mutations.

We are also developing SNS-510, a PDK1 inhibitor licensed from Millennium Pharmaceuticals, Inc., a wholly-owned subsidiary of Takeda Pharmaceutical Company Limited, or Takeda. We acquired from Takeda global commercial rights to several potential first-in class, preclinical inhibitors of the novel target PDK1, including SNS-510. We are currently characterizing SNS-510 through preclinical pharmacology studies, manufacturing and formulation activities.

We are in a collaboration with Takeda for the development of TAK-580 (formerly MLN2480), an oral pan-RAF inhibitor, which is under investigation for pediatric low-grade glioma.

We are also evaluating strategic alternatives for vosaroxin, a topoisomerase 2 inhibitor for which we conducted a Phase 3 trial in patients with relapsed or refractory acute myeloid leukemia.

Recent Financial History

Equity Financing Agreements

In January 2019, we completed underwritten public offerings of (i) 23,000,000 shares of our common stock at a price to the public of $0.50 for each share of common stock, and (ii) 17,000 shares of our non-voting Series E Convertible Preferred Stock ("Series E Stock") at a price to the public of $500 for each share of Series E Stock. Gross proceeds from the sale were $20.0 million and net proceeds were approximately $18.4 million. Each share of non-voting Series E Stock is convertible into 1,000 shares of our common stock, provided that conversion will be prohibited if, as a result, the holder and its affiliates would own more than 9.98% of the total number of shares of our common stock then outstanding; provided, however, that a holder may, upon written notice, elect to increase or decrease this percentage (not to exceed the limits under Nasdaq Marketplace Rule 5635(b), to the extent applicable).

In October 2017, we completed an underwritten public offering of (i) 7,500,000 shares of common stock and accompanying warrants to purchase 3,750,000 shares of common stock at a price to the public of $2.00 for each share of common stock and a warrant to purchase 0.5 shares of common stock, and (ii) 2,500 shares of non-voting Series D Convertible Preferred Stock ("Series D Stock") and accompanying warrants to purchase 1,250,000 shares of common stock at a price to the public of $2,000 for each share of Series D Stock and a warrant to purchase 500 shares of common stock. The exercise price of the warrants was $3.00 per whole share of common stock. The warrants expired unexercised on October 27, 2018. Gross proceeds from the sale were $20.0 million and net proceeds were $18.5 million. Each share of non-voting Series D Stock is convertible into 1,000 shares of common stock, provided that conversion will be prohibited if, as a result, the holder and its affiliates would own more than 9.98% of the total number of shares of common stock then outstanding.

Aspire Common Stock Purchase Agreement

In June 2018, we entered into the Common Stock Purchase Agreement (the "CSPA") with Aspire Capital Fund, LLC ("Aspire"), pursuant to which we could issue and sell shares of our common stock having an aggregate gross sales price of up to $15.5 million. Upon execution of the CSPA, we sold to Aspire 228,311 shares of common stock at a price of $2.19 per share, for total proceeds of $0.5 million. In addition, Aspire committed to purchasing up to an additional $15 million of common shares, at our request, from time to time during a 24-month period at prices based on the market price at the time of each sale. Under the CSPA, on any trading day selected by us on which the closing price of our common stock is equal to or greater than $0.25 per share, we have the right, in our sole discretion, to present Aspire with a purchase notice directing Aspire to purchase up to 200,000 shares of common stock per business day, at a purchase price equal to the lesser of:

a) the lowest sale price of common stock on the purchase date; or

b) the arithmetic average of the three lowest closing sale prices during the 10 consecutive business days ending on the trading day immediately preceding the purchase date.

We shall also have the right to require Aspire to purchase up to an additional 30% of the trading volume of the shares for the next business day at a purchase price (the "VWAP Purchase Price"), equal to the lesser of: (i) the closing sale price of the shares on the purchase date, or (ii) ninety-seven percent (97%) of the next business day's volume weighted average price (each such purchase, a "VWAP Purchase"). We shall have the right, in our sole discretion, to determine a maximum number of shares and set a minimum market price threshold for each VWAP Purchase. We can only require a VWAP Purchase if we have also submitted a regular purchase on the notice date for the VWAP Purchase. There are no limits on the number of VWAP purchases that we may require.

There are no trading volume requirements or restrictions under the CSPA, and we will control the timing and amount of sales. Aspire has no right to require any sales by us, but is obligated to make purchases from us as directed by us in accordance with the CSPA. There are no limitations on use of proceeds, financial or business covenants, restrictions on future fundings, rights of first refusal, participation rights, penalties or liquidated damages in the Purchase Agreement. The CSPA may be terminated by us at any time, at our discretion, without any cost to us. Aspire has agreed that neither it nor any of its agents, representatives and affiliates shall engage in any direct or indirect short-selling or hedging of common stock during any time prior to the termination of the CSPA. Any proceeds we receive under the CSPA are expected to be used for working capital and general corporate purposes. We cannot request Aspire to purchase more than 2,000,000 shares per business day.

As consideration for Aspire's obligation under the CSPA, we issued 212,329 shares of common stock to Aspire as a commitment fee. This $0.4 million commitment fee and $0.1 million in other transaction costs were recorded in June 2018 as costs of equity financing, within additional paid-in capital. During 2018, we issued to Aspire a total of 2,390,640 shares for total net proceeds of $4.6 million. The shares were issued at an average price of $2.20 per share, excluding the 212,329 commitment shares issued. Aspire's remaining purchase commitment was $10.9 million as of December 31, 2018.

Cantor Controlled Equity Offering

In August 2011, we entered into a Controlled Equity Offering^{SM} sales agreement ("the Sales Agreement"), with Cantor Fitzgerald & Co. ("Cantor"), as agent and/or principal, pursuant to which we could issue and sell shares of common stock. The most recent amendment to the Sales Agreement, made in November, 2017, provides for an increase in the aggregate gross sales under the Sales Agreement to $45.0 million. We will pay Cantor a commission of up to 3.0% of the gross proceeds from any common stock sold under the Sales Agreement, as amended.

During 2018, we sold an aggregate of 617,967 shares of common stock under the Sales Agreement, as amended, at an average price of approximately $2.38 per share for gross proceeds and net proceeds of $1.4 million, after deducting Cantor's commission. As of December 31, 2018, $43.6 million of common stock remained available to be sold under the Sales Agreement, as amended, subject to certain conditions as specified in the Sale Agreement.

Option Exchange Program

On June 9, 2017, we filed a Tender Offer Statement (TO) on Schedule TO relating to an option exchange program for our officers and employees (the Option Exchange) to exchange certain stock options to purchase up to an aggregate of 781,505 shares of our common stock that had been granted to eligible holders, for a lesser number of new stock options with a lower exercise price. Stock options with an exercise price greater than or equal to $8.00, and held by eligible holders in continuous service through the termination of the Option Exchange, were eligible for exchange in the program. An exchange ratio of 1.30 for 1 was applied to options priced from $8.00 to $19.99, and an exchange ratio of 1.75 for 1 was applied to options priced at $20.00 or greater.

As of the closing of the Option Exchange on July 10, 2017, 25 eligible holders had tendered an aggregate of 778,928 options for 543,650 new options to purchase shares of our common stock. Each new stock option was granted on July 10, 2017, pursuant to our 2011 Equity Incentive Plan with an exercise price per share of $2.62, which was the closing market price on the grant date of the new options. The exchange of stock options was treated as a modification for accounting purposes and resulted in an incremental expense of $50,957, for the vested options, which was calculated using the Black-Scholes option pricing model. The incremental expense together with the unamortized expense remaining on the unvested options is being amortized over the vesting period of the new options.

Loan Agreement

In 2017, we entered into two amendments (the "Amendments") to our existing loan agreement (the "Loan Agreement") with Western Alliance Bank and Solar Capital Ltd. (the "Lenders") and Western Alliance, as Collateral Agent (the "Collateral Agent"). Under terms of the Amendments, we will be required to pay interest on the borrowings under the Loan Agreement at a per annum rate equal to 8.54% plus the then effective one-month U.S. LIBOR rate. The Amendments modified the loan repayment terms to be interest-only through January 1, 2019, contingent upon the receipt of at least Twenty-Five Million dollars ($25,000,000) in unrestricted cash proceeds on or prior to September 15, 2018. The Company qualified for the extension and the interest-only period was extended to January 1, 2019.

In addition to principal and interest, a final payment equal to $312,500 will be due upon maturity date of April 1, 2020 or such earlier date specified in the Loan Agreement and the Amendments, of which $284,000 has been accrued and recorded in the other accrued liabilities line item in the accompanying consolidated balance sheet as of December 31, 2018. If we repay all amounts owed under the Loan Agreement and the Amendments prior to the maturity date, we will pay a prepayment fee equal to 0.5% of the amount prepaid. The outstanding principal balance of this loan was $7,500,000 as of December 31, 2018.

Capital Requirements

We have incurred significant losses in each year since our inception. As of December 31, 2018, we had cash and cash equivalents of $13.7 million and an accumulated deficit of $659.5 million. We expect to continue to incur significant losses for the foreseeable future as we continue the development of our kinase inhibitor pipeline, with a focus on our BTK inhibitor vecabrutinib. We have a limited number of product candidates that are still in the early stages of development and will require significant additional future investment.

We expect our current cash and cash equivalents of $13.7 million plus the approximately $18.4 million from the public offering in January 2019 are not sufficient to support our operations for a period of twelve months from the date the financial statements are available to be issued. We will require additional financing to fund working capital, repay debt and pay our obligations as they come due. Additional financing might include one or more offerings and one or more of a combination of equity securities, debt arrangements or partnership or licensing collaborations. However, there can be no assurance that we will be successful in acquiring additional funding at levels sufficient to fund our operations or on terms favorable to us. These conditions raise substantial doubt about our ability to continue as a going concern for a period of one year from the date of these financial statements are available to be issued. If we are unsuccessful in our efforts to raise additional financing in the near term, we will be required to significantly reduce or cease operations. The accompanying financial statements have been prepared assuming we will continue to operate as a going concern, which contemplates the realization of assets and the settlement of liabilities in the normal course of business. The consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts of liabilities that may result from uncertainty related to our ability to continue as a going concern.

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.

Revenue Recognition

On January 1, 2018, the Company adopted Topic 606, *Revenue from Contracts with Customers* ("Topic 606") using the modified retrospective method applied to those contracts which were not completed as of January 1, 2018. Results for reporting periods beginning after January 1, 2018 are presented under Topic 606, while prior period amounts are not adjusted and continue to be reported in accordance with the Company's historic accounting under Topic 605, *Revenue Recognition* ("Topic 605").

Adoption of the new standard did not result in any change to our opening retained earnings as of January 1, 2018 as no cumulative impact to the adoption of ASC 606 was noted as a result of our assessment of the comparative revenue recognized since inception of the contracts under the new revenue standard ASC 606 and historic standard ASC 605. We are applying the practical exemption allowed under ASC 606 and does not disclose the value of variable consideration that is a sale-based royalty promised in exchange for a license of intellectual property. The adoption of the new standard resulted in changes to our accounting policies for revenue recognition as detailed below:

Our contract revenues consist of license revenue primarily generated through agreements with strategic partners for the development and commercialization of our product candidates. The terms of the agreement typically include non-refundable upfront fees, payments based upon achievement of milestones and royalties on net product sales. We have both fixed and variable consideration. Non-refundable upfront fees are considered fixed, while milestone payments are identified as variable consideration.

In determining the appropriate amount of revenue to be recognized as we fulfill our obligations under these agreements, we perform the following steps: (i) identification of the promised goods or services in the contract; (ii) determination of whether the promised goods or services are performance obligations including whether they are distinct in the context of the contract; (iii) measurement of the transaction price, including the constraint on variable consideration; (iv) allocation of the transaction price to the performance obligations based on estimated selling prices; and (v) recognition of revenue when (or as) we satisfy each performance obligation.

Licenses of intellectual property: If the license to our intellectual property is determined to be distinct from the other performance obligations identified in the arrangement, we recognize revenues from non-refundable, up-front fees allocated to the license when the license is transferred to the customer, and the customer can use and benefit from the license. For licenses that are bundled with other promises, we utilize judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing revenue from non-refundable, up-front fees. We evaluate the measure of progress each reporting period and, if necessary, adjust the measure of performance and related revenue recognition.

Milestone payments: At the inception of each arrangement that includes milestone payments, we evaluate whether the milestones are considered probable of being achieved and estimate the amount to be included in the transaction price using the most likely amount method. If it is probable that a significant revenue reversal would not occur, the value of the associated milestone is included in the transaction price. Milestone payments that are not within our control are not included in the transaction price until they become probable of being achieved.

Royalties: For arrangements that include sales-based royalties and the license is deemed to be the predominant item to which the royalties relate, we recognize revenue at the later of (a) when the related sales occur, or (b) when the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially satisfied). To date, we have not recognized any royalty revenue resulting from any of our licensing arrangements.

Clinical Trial Accounting

We record accruals for estimated clinical trial costs, which include payments for work performed by contract research organizations ("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 has not been significant to date.

Overview of Revenues

We have not generated any revenue from the sale of commercial products. Over the past several years, we have generated revenue primarily through the Royalty Agreement with RPI, and the license and collaboration agreement with Biogen, which was fully amortized to revenue over the related performance period. We cannot predict if our collaboration will continue development or 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. Research and development expense consists primarily of clinical trial costs, which include: payments for work performed by our contract research organizations, clinical trial sites, labs and other clinical service providers and for drug packaging, storage and distribution; drug manufacturing costs, which include costs for producing drug substance and drug product, and for stability and other testing; personnel costs, including non-cash stock-based compensation; other outside services and consulting costs; and payments under license agreements. We expense all research and development costs as they are incurred.

The table below sets forth our research and development expense by program for each period presented:

	Year ended December 31,	
	2018	2017
		(in thousands)
Vosaroxin	$ 991	$ 11,518
Vecabrutinib	12,923	9,586
SNS-510 & others	701	436
Total	$ 14,615	$ 21,540

We are currently focused on the development of vecabrutinib for the treatment of B-cell malignancies and our other product candidate, SNS-510, for the treatment of solid tumor and hematologic malignancies. Research and development costs typically increase as product development candidates move from early stage to later stage, larger clinical trials. As a result, our research and development costs may increase in the future. 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 development of our product candidates in the future.

If we engage a development or commercialization partner for our development programs, 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.

We anticipate continuing expenditures associated with advancing the vecabrutinib and SNS-510 programs in 2019 and beyond. Additionally, under the Takeda Agreement, we have the right to participate in co-development and co-promotion activities for TAK-580 (formerly MLN2480), an oral pan-RAF inhibitor currently in a Phase 1b/2 clinical study being supported by Takeda. 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; outside service costs, including fees paid to external legal advisors, marketing consultants and our independent registered public accounting firm; facilities expenses; and other administrative costs.

Results of Operations

Years Ended December 31, 2018 and 2017

Revenue. Total revenue was $0.2 million in 2018 as compared to $0.7 million in 2017. Revenue in both periods derived from license and royalty agreements. The decrease of $0.5 million in 2018 was primarily due to deferred revenue related to the Royalty Agreement with RPI Finance Trust, which was fully amortized to revenue in March 2017.

Research and development expense. Research and development expense was $14.6 million in 2018 as compared to $21.5 million in 2017, primarily relating to the vecabrutinib and the vosaroxin development program in each year. The decrease of $6.9 million in 2018 was primarily due to the $2.5 million Biogen payment in 2017, $2.8 million decrease in professional services related to higher expenses incurred in 2017 due to the MAA filed with the EMA, and a $1.8 million decrease in salary and personnel related expenses due to lower headcount, partially offset by an increase in clinical expenses of $0.5 million for work performed by contract research organizations related to the development of vecabrutinib.

General and administrative expense. General and administrative expense was $11.3 million in 2018 as compared to $13.5 million in 2017. The decrease of $2.2 million in 2018 was primarily due to a $1.4 million decrease in professional services, a $0.5 million decrease in salary and related expenses, and a $0.3 million decrease in commercial expenses as result of higher expenses incurred in 2017 due to the MAA with the EMA.

Interest expense. Interest expense was $1.2 million in 2018 as compared to $1.4 million in 2017. The decrease in the 2018 was primarily due to the decrease in the principal amount of the outstanding notes payable.

Other income, net. Net other income was $0.2 million in 2018 as compared to $0.4 million in 2017. Other income was primarily comprised of interest income from short term investments.

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, 2018, we had net operating loss carry-forwards for federal and state income tax purposes of $448.2 million and $288.3 million, respectively. We also had federal and state research and development tax credit carry-forwards of $8.7 million and $7.6 million, respectively. If not utilized, the federal net operating loss and tax credit carry-forwards will expire at various dates beginning in 2018 and the state net operating loss carry-forwards expire beginning in 2018. 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 (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

We have incurred significant losses in each year since our inception. As of December 31, 2018, we had cash and cash equivalents of $13.7 million and an accumulated deficit of $659.5 million. We expect to continue to incur significant losses for the foreseeable future. Our products are still in the early stages of approval and will require significant additional investment.

We expect our current cash and cash equivalents of $13.7 million plus the approximately $18.4 million from the public offering in January 2019 are not sufficient to support our operations for a period of twelve months beyond the date the financial statements are available to be issued. We will require additional financing to fund working capital, repay debt and pay our obligations as they come due, so substantial doubt exists about our ability to continue as a going concern. Additional financing might include one or more of a combination of offerings of equity securities or debt arrangements or partnerships or licensing collaborations. However, there can be no assurance that we will be successful in acquiring additional funding at levels sufficient to fund our operations or on terms favorable to us.

In 2018, we sold 617,967 shares of common stock under the Sales Agreement, as amended, with Cantor, for net proceeds of $1.4 million. As of December 31, 2018, $43.6 million of common stock remains available to be sold under the Sales Agreement, as amended, subject to certain conditions as specified in the Sales Agreement. In 2018, we sold 2,390,640 shares under the CSPA with Aspire, for net proceeds of $4.6 million. The remaining purchase commitment for Aspire under the CSPA was $10.9 million, as of December 31, 2018.

In January 2019, we completed underwritten public offerings of (i) 23,000,000 shares of our common stock at a price to the public of $0.50 for each share of common stock, and (ii) 17,000 shares of our non-voting Series E Convertible Preferred Stock ("Series E Stock") at a price to the public of $500 for each share of Series E Stock. Gross proceeds from the sale were $20.0 million and net proceeds were approximately $18.4 million. Each share of non-voting Series E Stock is convertible into 1,000 shares of our common stock, provided that conversion will be prohibited if, as a result, the holder and its affiliates would own more than 9.98% of the total number of shares of our common stock then outstanding; provided, however, that a holder may, upon written notice, elect to increase or decrease this percentage (not to exceed the limits under Nasdaq Marketplace Rule 5635(b), to the extent applicable).

Our cash, cash equivalents and marketable securities totaled $13.7 million as of December 31, 2018, as compared to $31.8 million as of December 31, 2017. The decrease of $18.1 million was primarily due to $24.4 million of net cash used in operating activities, partially offset by $6.0 million in net proceeds from issuance of common stock, and $0.3 million in proceeds from purchases under our ESPP and stock option exercises by employees.

If we become unable to continue as a going concern, we may have to liquidate our assets, and might realize significantly less than the values at which they are carried on our consolidated financial statements, and stockholders may lose all or part of their investment in our common stock. Other than raising additional funds from investors or business partners, management cannot identify conditions or events to mitigate the substantial doubt that exists about our ability to continue as a going concern.

Cash Flows

Operating activities

Net cash used in operating activities was $24.4 million in 2018, as compared to $36.1 million in 2017. Net cash used in the 2018 period resulted primarily from the net loss of $26.6 million and changes in operating assets and liabilities of $0.6 million, offset by net adjustments for non-cash items of $2.8 million. Net cash used in the 2017 period resulted primarily from the net loss of $35.5 million and changes in operating assets and liabilities of $4.0 million, offset by net adjustments for non-cash items of $3.3 million (including $3.0 million for stock-based compensation).

Investing activities

Net cash provided by investing activities was $4.8 million in 2018, as compared to net cash provided by investing activities of $29.7 million in 2017. Net cash provided in both periods consisted primarily of proceeds from maturities of marketable securities.

Financing activities

Net cash provided by financing activities was $6.3 million in 2018, as compared to $25.3 million in 2017. Net cash provided in 2018 resulted primarily from issuances of common stock through the Sales Agreement with Cantor and CSPA with Aspire of $6.0 million and net proceeds of $0.3 million from the exercise of stock options and ESPP purchases. Net cash provided in 2017 resulted primarily from net proceeds of $18.5 million from the underwritten public offering and $14.4 million from the sale of our common stock through the Sales Agreement with Cantor and from purchases under the ESPP by the employees, partially offset by a debt restructuring payment of the loan with Bridge Bank of $7.6 million.

Operating Cash Requirements

We have incurred significant operating losses and negative cash flows from operations since our inception. As of December 31, 2018, we had cash and cash equivalents of $13.7 million and cash used in operating activities of $24.4 million for 2018.

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 ever. We will need to raise substantial additional funding to complete the development and potential commercialization of any of our development programs. 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 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 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 and Takeda.

Our failure to raise significant additional capital in the future would force us to delay or reduce the scope of our vecabrutinib and other development programs, potentially including any additional clinical trials or subsequent regulatory filings in the United States or Europe, 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.

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*

We are a smaller reporting company as defined by Rule 12b-2 of the Securities Exchange Act of 1934 and are not required to provide the information under this item.

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

Index to Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Sunesis Pharmaceuticals, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Sunesis Pharmaceuticals, Inc. (the Company) as of December 31, 2018 and 2017, the related consolidated statements of operations and comprehensive loss, stockholders' equity, and cash flows for each of the two years in the period ended December 31, 2018, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

The Company's Ability to Continue as a Going Concern

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has suffered recurring losses from operations and has stated that substantial doubt exists about the Company's ability to continue as a going concern. Management's evaluation of the events and conditions and management's plans regarding these matters are also described in Note 1. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP
We have served as the Company's auditor since 1998

San Jose, California
March 7, 2019

SUNESIS PHARMACEUTICALS, INC.

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

	December 31,	
	2018	2017
ASSETS		
Current assets:		
Cash and cash equivalents	$ 13,696	$ 26,977
Marketable securities	—	4,773
Prepaids and other current assets	1,504	1,183
Total current assets	15,200	32,933
Property and equipment, net	11	20
Other assets	113	1,381
Total assets	$ 15,324	$ 34,334
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 1,393	$ 1,697
Accrued clinical expense	500	767
Accrued compensation	943	1,440
Other accrued liabilities	1,091	1,570
Notes payable	7,396	7,204
Total current liabilities	11,323	12,678
Other liabilities	8	112
Total liabilities	11,331	12,790
Commitments and contingencies (Note 9)		
Stockholders' equity:		
Convertible preferred stock, $0.0001 par value; 10,000 shares authorized as of December 31, 2018; 18 shares issued and outstanding as of December 31, 2018 and 2017	20,998	20,966
Common stock, $0.0001 par value; 400,000 shares authorized as of December 31, 2018; 37,474 and 34,291 shares issued and outstanding as of December 31, 2018 and 2017, respectively	4	3
Additional paid-in capital	642,460	633,436
Accumulated other comprehensive loss	—	(7)
Accumulated deficit	(659,469)	(632,854)
Total stockholders' equity	3,993	21,544
Total liabilities and stockholders' equity	$ 15,324	$ 34,334

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,	
	2018	**2017**
Revenue:		
License and other revenue	$ 237	$ 669
Total revenues	237	669
Operating expenses:		
Research and development	14,615	21,540
General and administrative	11,332	13,548
Total operating expenses	25,947	35,088
Loss from operations	(25,710)	(34,419)
Interest expense	(1,154)	(1,396)
Other income, net	249	357
Net loss	(26,615)	(35,458)
Unrealized gain on available-for-sale securities	7	15
Comprehensive loss	$ (26,608)	$ (35,443)
Basic and diluted loss per common share:		
Net loss:	$ (26,615)	$ (35,458)
Shares used in computing net basic and diluted loss per common share:	35,582	24,516
Net loss per common share:	$ (0.75)	$ (1.45)

See accompanying notes to consolidated financial statements.

SUNESIS PHARMACEUTICALS, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands)

	Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stock holders' Equity
	Shares	Amount	Shares	Amount				
Balance as of December 31, 2016	18	18,808	20,925	2	599,632	(22)	(597,396)	21,024
Issuance of $15,000 of common stock, $5,000 of preferred stock, and warrants in underwritten offering, net of issuance costs about $1,500	3	4,426	7,500	1	14,083	—	—	18,510
Issuance of $14,468 of common stock through controlled equity offering facilities, net of issuance costs of $289	—	—	5,321	—	14,179	—	—	14,179
Issuance of common stock upon conversion of preferred stock	(3)	(2,268)	450	—	2,268	—	—	—
Issuance of common stock under employee stock purchase plans	—	—	87	—	217	—	—	217
Issuance of common stock pursuant to stock option exercises	—	—	8	—	24	—	—	24
Stock-based compensation expenses	—	—	—	—	3,033	—	—	3,033
Net loss	—	—	—	—	—	—	(35,458)	(35,458)
Unrealized gain on available-for-sale securities	—	—	—	—	—	15	—	15
Balance as of December 31, 2017	18	20,966	34,291	3	633,436	(7)	(632,854)	21,544
Adjustment to issuance cost related to common stock, preferred stock, and warrants issued in prior year	—	32	—	—	94	—	—	126
Issuance of $6,068 of common stock through controlled equity offering facilities, net of issuance costs of $77	—	—	3,009	1	5,990	—	—	5,991
Issuance of common stock from vesting of restricted stock awards	—	—	21	—	83	—	—	83
Issuance of common stock under employee stock purchase plans	—	—	104	—	139	—	—	139
Issuance of common stock pursuant to stock option exercises	—	—	49	—	164	—	—	164
Stock-based compensation expenses	—	—	—	—	2,554	—	—	2,554
Net loss	—	—	—	—	—	—	(26,615)	(26,615)
Unrealized gain on available-for-sale securities	—	—	—	—	—	7	—	7
Balance as of December 31, 2018	18	$ 20,998	37,474	$ 4	$ 642,460	$ —	$ (659,469)	$ 3,993

See accompanying notes to consolidated financial statements.

SUNESIS PHARMACEUTICALS, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended December 31,	
	2018	**2017**
Cash flows from operating activities		
Net loss	$ (26,615)	$ (35,458)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock-based compensation expense	2,637	3,033
Depreciation and amortization	9	9
Amortization of debt discount and debt issuance costs	192	269
Changes in operating assets and liabilities:		
Prepaids and other assets	1,063	(1,921)
Accounts payable	(304)	(174)
Accrued clinical expense	(267)	(667)
Accrued compensation	(497)	(560)
Other accrued liabilities	(622)	(63)
Deferred revenue	—	(610)
Net cash used in operating activities	(24,404)	(36,142)
Cash flows from investing activities		
Purchases of property and equipment	—	(26)
Sale and maturities of marketable securities	4,780	29,774
Net cash provided by investing activities	4,780	29,748
Cash flows from financing activities		
Principal payments on notes payable and final payment	—	(7,615)
Proceeds from issuance of convertible preferred stock offering, net	—	4,633
Proceeds from issuance of common stock, net	—	13,877
Proceeds from issuance of common stock through controlled equity offering facilities, net	6,040	14,179
Proceeds from exercise of stock options and stock purchase rights	303	241
Net cash provided by financing activities	6,343	25,315
Net increase (decrease) in cash and cash equivalents	(13,281)	18,921
Cash and cash equivalents at beginning of period	26,977	8,056
Cash and cash equivalents at end of period	$ 13,696	$ 26,977
Supplemental disclosure of cash flow information		
Interest paid	$ 790	$ 1,066
Supplemental disclosure of non-cash investing and financing activities		
Conversion of preferred stock to common stock	$ —	$ (2,268)
Issuance of stock from vesting of restricted stock awards	$ 83	$ —
Commitment shares issued as cost of equity financing	$ 448	$ —
Legal expenses accrued as cost of equity financing, net of adjustments	$ 39	$ —

See accompanying notes to consolidated financial statements.

1. Company Overview

Description of Business

Sunesis Pharmaceutical, Inc. ("Sunesis" or the "Company") is a biopharmaceutical company focused on the development of new targeted inhibitors 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.

The Company's lead program is vecabrutinib, a non-covalent inhibitor of Bruton's Tyrosine Kinase ("BTK"). In clinical trials, vecabrutinib has shown activity against both wild type and C481S-mutated BTK, the most common mutation associated with resistance to ibrutinib. Vecabrutinib is being studied in a Phase 1b/2 clinical trial to assess safety and activity in patients with advanced B-cell malignancies after two or more prior therapies, including ibrutinib or another covalent BTK inhibitor where approved for the disease. The Phase 1b portion of the study is a dose escalation component that will proceed to define a maximum tolerated dose and/or a recommended Phase 2 dose. Upon identifying the Phase 2 dose, the Phase 2 portion will further explore clinical activity and safety in disease- and mutation-specific cohorts, including patients with and without BTK C481 mutations.

The Company is also developing SNS-510, a PDK1 inhibitor licensed from Millennium Pharmaceuticals, Inc., a wholly-owned subsidiary of Takeda Pharmaceutical Company Limited ("Takeda"). The Company acquired from Takeda global commercial rights to several potential first-in class, preclinical inhibitors of the novel target PDK1, including SNS-510. The Company is currently characterizing SNS-510 through preclinical pharmacology studies, manufacturing and formulation activities.

The Company is in a collaboration with Takeda for the development of TAK-580 (formerly MLN2480), an oral pan-RAF inhibitor, which is under investigation for pediatric low-grade glioma.

The Company is also evaluating strategic alternatives for vosaroxin, a topoisomerase 2 inhibitor for which we conducted a Phase 3 trial in patients with relapsed or refractory acute myeloid leukemia.

Liquidity and Going Concern

The Company has incurred significant losses and negative cash flows from operations since its inception, and as of December 31, 2018, had cash and cash equivalents totaling $13.7 million and an accumulated deficit of $659.5 million. In January 2019, the Company completed underwritten public offerings of 23,000,000 shares of common stock and 17,000 shares of Series E Convertible Preferred Stock for net proceeds of approximately $18.4 million.

The Company expects to continue to incur significant losses for the foreseeable future as it continues development of its kinase inhibitor pipeline, including its BTK inhibitor, vecabrutinib. The Company has prioritized development funding on its kinase inhibitor portfolio with a focus on vecabrutinib. The Company has a limited number of products that are still in the early stages of development and will require significant additional investment.

The Company's cash and cash equivalents are not sufficient to support its operations for a period of twelve months from the date these consolidated financial statements are available to be issued. These factors raise substantial doubt about its ability to continue as a going concern. The Company will require additional financing to fund working capital, repay debt and pay its obligations as they come due. Additional financing might include one or more offerings and one or more of a combination of equity securities, debt arrangements or partnership or licensing collaborations. However, there can be no assurance that the Company will be successful in acquiring additional funding at levels sufficient to fund its operations or on terms favorable to the Company. If the Company is unsuccessful in its efforts to raise additional financing in the near term, the Company will be required to significantly reduce or cease operations. The principal payments due under the Loan Agreement (as defined in Note 8) have been classified as a current liability as of December 31, 2018 and 2017 due to the considerations discussed above and the assessment that the material adverse change clause under the Loan Agreement is not within the Company's control. The Company has not been notified of an event of default by the Lenders (as defined in Note 8) as of the date of the filing of this Form 10-K. The accompanying consolidated financial statements have been prepared assuming the Company will continue to operate as a going concern, which contemplates the realization of assets and the settlement of liabilities in the normal course of business. The consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts of liabilities that may result from uncertainty related to the Company's ability to continue as a going concern.

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").

Adopted Accounting Pronouncements

In January 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standard Update ("ASU") No. 2016-01, *Recognition and Measurement of Financial Assets and Financial Liabilities*. ASU 2016-01 made modifications to how certain financial instruments should be measured and disclosed, including using the exit price notion when measuring the fair value, separating the presentation of financial assets and financial liabilities by measurement category on the balance sheet and eliminating the requirement to disclose the method and significant assumptions used to estimate the fair value that is required to be disclosed for financial instruments measured at amortized cost on the balance sheet. In February 2018, FASB issued ASU No. 2018-03, *Technical Corrections and Improvements to Financial Instruments—Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities*, which clarifies the guidance in ASU No. 2016-01 on several issues, such as Equity Securities without a Readily Determinable Fair Value – Discontinuation. On January 1, 2018, the Company adopted this standard and it did not have a material impact on its consolidated financial statements and accompanying footnotes.

In March 2018, the FASB issued ASU No. 2018-05, *Income Taxes (topic 740): Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin ("SAB") No. 118 (SEC Update)*. This standard adds various SEC paragraphs pursuant to the issuance of SEC Staff Accounting Bulletin No. 118, which clarifies the SEC Staff's views on income tax accounting implications of the Tax Cuts and Jobs Act (the "Act"). It requires reporting of provisional amounts for specific income tax effects of the Act for which the accounting under ASC Topic 740 will be incomplete, but a reasonable estimate can be determined. Provision amounts for income tax effects of the Act for which a reasonable estimate cannot be determined, ASC Topic 740 should be applied based on provisions of the tax laws that were in effect immediately prior to the Act being enacted. Provisional amounts for income tax effects for which a reasonable estimate cannot be determined would be reported in the first reporting period in which a reasonable estimate can be determined. In accordance with this standard and SAB 118, the Company reported provisional amounts for income tax effects from the Act as of December 31, 2017, and amounts were finalized as of December 31, 2018 with no adjustments made to the amounts previously record.

Recent Accounting Pronouncements

In February 2016, the FASB issued ASU No. 2016-02, *Leases* ("ASC 842"). ASC 842 is aimed at making leasing activities more transparent and comparable, and requires substantially all leases be recognized by lessees on their balance sheet as a right-of-use asset and corresponding lease liability, including leases currently accounted for as operating leases. ASC 842 is effective for Sunesis' interim and annual reporting periods during the year ending December 31, 2019, and all annual and interim reporting periods thereafter. In July 2018, the FASB issued ASU 2018-10, *Codification Improvements to Topic 842, Leases*, ASU 2018-11, *Leases (Topic 842): Targeted Improvements*. These pronouncements have the same effective date as the new leases standard and provide additional guidance, clarification and practical expedients to reduce the cost and complexity of applying the new standard. The Company will apply the new guidance effective January 1, 2019 using the modified retrospective method at the effective date.

The Company has elected the package of practical expedients permitted under ASC 842. Accordingly, the Company accounted for its existing operating leases as operating leases under the new guidance, without reassessing (a) whether the contracts contain a lease under ASC Topic 842, (b) whether classification of the operating leases would be different in accordance with ASC Topic 842, or (c) whether the unamortized initial direct costs before transition adjustments would have met the definition of initial direct costs in ASC Topic 842 at lease commencement. In addition, the Company made an accounting policy election to combine the lease and non-lease components and the short-term lease practical expedients allowed under ASC 842. The adoption of ASC 842 will lead to an

increase in the assets and liabilities recorded on the balance sheets primarily due to the lease agreement attributable to leased office space. This standard will not have a material impact on the Company's balance sheets or cash flows from operations.

In June 2016, the FASB issued ASU No. 2016-13, *Measurement of Credit Losses on Financial Instruments*, which will require a reporting entity to use a new forward-looking impairment model for most financial assets that generally will result in the earlier recognition of allowances for losses. For available-for-sale debt securities with unrealized losses, credit losses will be recognized as allowances rather than as reductions in amortized cost. The standard will be effective for annual periods beginning after December 15, 2019, with early adoption permitted beginning in 2019. Entities will apply the guidance as a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is adopted. The Company does not expect the adoption of this standard will have a material impact on its financial statements and accompanying footnotes.

In June 2018, the FASB issued ASU No. 2018-07, *Compensation – Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting*. The amendments in this ASU expand the scope of Topic 718 to include share-based payment transactions for acquiring goods and services from nonemployees. This new guidance is effective for the Company in fiscal years beginning after December 15, 2018, including interim periods within that fiscal year. Early adoption is permitted. The Company is currently evaluating the impact of adoption of ASU 2018-07 will have on its consolidated financial statements and accompanying footnotes.

In August 2018, the FASB issued ASU No. 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement*. The amendments in this ASU modify the disclosure requirements on fair value measurements in Topic 820 based on the concepts in the Concepts Statement, Conceptual Framework for Financial Reporting—Chapter 8: Notes to Financial Statements, including the consideration of costs and benefits. This new guidance is effective for the Company in fiscal years beginning after December 15, 2019, including interim periods within that fiscal year. Early adoption is permitted. The Company is currently evaluating the impact that the adoption of ASU 2018-13 will have on its financial statements and accompanying footnotes.

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiary, 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 and reevaluates such designation at each balance sheet date. 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 except for unrealized loss determined to be other than temporary, which would be recorded within Other income, net.

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, 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, 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, 2018 and December 31, 2017, the Company held investments denominated in Euros with an aggregate fair value of $0.8 million. 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, net in the statements of operations and comprehensive loss

Fair Value Measurements

The Company measures cash equivalents and marketable securities 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 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, 2018 and December 31, 2017.

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 was fully amortized to revenue as of March 31, 2017. 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, net over the term of the loans using the effective interest method.

Revenue Recognition

On January 1, 2018, the Company adopted Topic 606, *Revenue from Contracts with Customers* ("Topic 606") using the modified retrospective method applied to those contracts which were not completed as of January 1, 2018. Results for reporting periods beginning after January 1, 2018 are presented under Topic 606, while prior period amounts are not adjusted and continue to be reported in accordance with the Company's historic accounting under Topic 605, *Revenue Recognition* ("Topic 605").

Adoption of the new standard did not result in any change to the Company's opening retained earnings as of January 1, 2018 as no cumulative impact to the adoption of ASC 606 was noted as a result of the Company's assessment of the comparative revenue recognized since inception of the contracts under the new revenue standard ASC 606 and historic standard ASC 605. The Company is applying the practical exemption allowed under ASC 606 and does not disclose the value of variable consideration that is a sale-based royalty promised in exchange for a license of intellectual property. The adoption of the new standard resulted in changes to the Company's accounting policies for revenue recognition as detailed below:

The Company's contracts consist license, milestone and royalty payments primarily generated through agreements with strategic partners for the development and commercialization of the Company's product candidates. The terms of the agreement typically include non-refundable upfront fees, payments based upon achievement of milestones and royalties on net product sales. The Company has both fixed and variable consideration. Non-refundable upfront fees are considered fixed, while milestone payments are identified as variable consideration.

In determining the appropriate amount of revenue to be recognized as it fulfills its performance obligations under its agreements, the Company performs the following steps: (i) identification of the promised goods or services in the contract; (ii) determination of whether the promised goods or services are performance obligations including whether they are distinct in the context of the contract; (iii) measurement of the transaction price, including the constraint on variable consideration; (iv) allocation of the transaction price to the performance obligations based on estimated selling prices; and (v) recognition of revenue when (or as) the Company satisfies each performance obligation.

Licenses of intellectual property: If the license to the Company's intellectual property is determined to be distinct from the other performance obligations identified in the arrangement, the Company recognizes revenues from non-refundable, up-front fees allocated to the license when the license is transferred to the customer, and the customer can use and benefit from the license. For licenses that are bundled with other promises, the Company utilizes judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing revenue from non-refundable, up-front fees. The Company evaluates the measure of progress each reporting period and, if necessary, adjusts the measure of performance and related revenue recognition.

Event-based or milestone payments: At the inception of each arrangement that includes event-based or milestone payments, the Company evaluates whether the events or milestones are considered probable of being achieved and estimates the amount to be included in the transaction price using the most likely amount method. If it is probable that a significant revenue reversal would not occur, the value of the associated event-based or milestone payments is included in the transaction price. Event-based or milestone payments that are not within the control of the Company are not included in the transaction price until they become probable of being achieved.

Royalties: For arrangements that include sales-based royalties and the license is deemed to be the predominant item to which the royalties relate, the Company recognizes revenue at the later of (a) when the related sales occur, or (b) when the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially satisfied). To date, the Company has not recognized any royalty revenue resulting from any of its licensing arrangements.

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.

Warrants for Shares of Common Stock

The Company accounts for warrants for shares of common stock as equity instruments in the accompanying balance sheets at their fair value on the date of issuance because such warrants are indexed to the Company's common stock and no cash settlement is required except for (i) liquidation of the Company, or (ii) a change in control in which the common stockholders also receive cash.

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 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.

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, 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, 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, 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,	
	2018	2017
Numerator:		
Net loss—basic and diluted	$ (26,615)	$ (35,458)
Denominator:		
Weighted-average common shares outstanding—basic and diluted	35,582	24,516
Net loss per common share:		
Basic and Diluted	$ (0.75)	$ (1.45)

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,	
	2018	2017
Warrants to purchase shares of common stock	218	5,218
Convertible preferred stock	6,331	6,331
Options to purchase shares of common stock	4,160	3,532
Outstanding securities not included in calculations	10,709	15,081

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, 2018	Valuation Input Level	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Money market funds	Level 1	$ 10,845	$ —	$ —	$ 10,845
Total available-for-sale securities		10,845	—	—	10,845
Less amounts classified as cash equivalents		(10,845)	—	—	(10,845)
Amounts classified as marketable securities		$ —	$ —	$ —	$ —

December 31, 2017	Valuation Input Level	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Money market funds	Level 1	$ 20,470	$ —	$ —	$ 20,470
U.S. corporate debt obligations	Level 2	3,282	—	(5)	3,277
U.S. commercial paper	Level 2	1,498	—	(2)	1,496
Total available-for-sale securities		25,250	—	(7)	25,243
Less amounts classified as cash equivalents		(20,470)	—	—	(20,470)
Amounts classified as marketable securities		$ 4,780	$ —	$ (7)	$ 4,773

There were no available-for-sale securities in an unrealized gain or loss position as of December 31, 2018.

No significant facts or circumstances have arisen to indicate that there has been any deterioration in the creditworthiness of the issuers of these securities. There were no realized gains or losses on the available-for-sale securities in the years ended December 31, 2018 and 2017. There were no sales of available-for-sale debt securities in the years ended December 31, 2018 and 2017.

5. Other Accrued Liabilities

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

	2018	2017
Accrued outside services	$ 556	$ 1,096
Accrued professional services	251	471
Accrued interest	284	—
Other accruals	—	3
Total other accrued liabilities	$ 1,091	$ 1,570

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. The payment, less $3.1 million representing the fair value of the warrants granted under the arrangement, was initially classified as deferred revenue and was fully amortized to revenue as of March 31, 2017.

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

Biogen Idec

The first amended and restated collaboration agreement with Biogen Idec MA, Inc. (the "Biogen 1st ARCA") amended and restated the collaboration agreement with Biogen (the "Biogen 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 with respect to the research collaboration under the Biogen OCA (other than the licenses transferred to Takeda under the Takeda Agreement) remain in effect.

In June 2012, the Company received an event-based payment and recognized as revenue of $1.5 million from Biogen for the advancement of pre-clinical work in connection with the Biogen 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 of the first two indications for licensed products against the BTK target. In December 2018, the Company entered into a settlement agreement with Biogen whereas Biogen will no longer be obligated to pay future event-based payments or royalty payments to the Company.

In December 2013, the Company entered into a second amended and restated collaboration agreement with Biogen (the "Biogen 2nd ARCA"), to provide the Company with an exclusive worldwide license to develop, manufacture and commercialize vecabrutinib, a BTK inhibitor synthesized under the Biogen 1st ARCA, solely for oncology indications. During the third quarter of 2017, the Company made a milestone payment of $2.5 million to Biogen upon the dosing of the first patient in a Phase 1b/2 study to assess the safety and activity of vecabrutinib in patients with advanced B-cell malignancies after two or more prior therapies, including ibrutinib or other covalent BTK inhibitor for those patients with malignancies for which a BTK inhibitor is approved, and including patients with BTK C481 mutations. The payment was recorded in the research and development expenses line item in the consolidated statement of operations. The Company may also be required to make tiered royalty payments based on percentages of net sales of vecabrutinib, if any, in the mid-single-digits.

Takeda

In March 2011, Takeda Pharmaceuticals, Inc., a wholly-owned subsidiary of Takeda Pharmaceutical Company Limited ("Takeda") purchased and exclusively licensed Biogen's rights to a PDK1 inhibitor program and a pan-Raf inhibitor program which were both originally developed through a collaboration agreement between Sunesis and Biogen. In January 2014, the Company entered into an amended and restated license agreement with Takeda (the "Amended Takeda 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 Takeda 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 tiered royalty payments based on percentages of net sales, if any, beginning in the mid-single-digits and not to exceed the low-teens.

With respect to the pan-Raf inhibitor program, the Company may in the future receive up to $57.5 million in pre-commercialization event-based payments related to the development by Takeda of the first two indications for each of the licensed products directed against the Raf target and royalty payments depending on related product sales. Under this program, Takeda is currently supporting a Phase 1b/2 clinical study of an oral investigative drug, TAK-580 (formerly MLN2480), in pediatric low-grade giloma. As of December 31, 2018, all future event-based payments and royalty payments are considered fully constrained variable considerations and therefore, no contract assets have been recorded and no revenue have been recognized.

8. Notes Payable

In 2017, the Company entered into two amendments (the "Amendments") to its existing loan agreement (the "Loan Agreement") with Western Alliance Bank and Solar Capital Ltd. (the "Lenders") and Western Alliance, as Collateral Agent (the "Collateral Agent"). Under terms of the Amendments, the Company will be required to pay interest on the borrowings under the Loan Agreement at a per annum rate equal to 8.54% plus the then effective one-month U.S. LIBOR rate. The average effective interest rates were 10.5% and 9.6% for the years ended December 31, 2018 and 2017, respectively. The Amendments modified the loan repayment terms to be interest-only through January 1, 2019, contingent upon the receipt of at least Twenty-Five Million dollars ($25,000,000) in unrestricted cash proceeds on or prior to September 15, 2018. The Company qualified for the extension and the interest-only period was extended to January 1, 2019.

In addition to principal and interest, a final payment equal to $312,500 will be due upon maturity date of April 1, 2020 or such earlier date specified in the Loan Agreement and the Amendments, of which $284,000 has been accrued and recorded in the other accrued liabilities line item in the accompanying consolidated balance sheet as of December 31, 2018. If the Company repays all amounts owed under the Loan Agreement and the Amendments prior to the maturity date, the Company will pay a prepayment fee equal to 0.5% of the amount prepaid. The outstanding principal balance of this loan was $7,500,000 as of December 31, 2018.

In conjunction with the Loan Agreement, the Lenders were issued five-year warrants to purchase an aggregate of up to 208,002 shares of the Company's common stock at a per share exercise price of $3.2454. The fair value of the warrants issued was estimated to be $0.5 million using a Black-Scholes valuation model with the following assumptions: common stock price at issuance of $3.24; exercise price of $3.2454; risk-free interest rate of 1.21% based upon observed risk-free interest rates; expected volatility of 111.96% based on the Company's average historical volatility; expected term of five years, which is the contractual life of the warrants; and a dividend yield of 0%. The fair value was 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 Agreement, using the effective interest method.

Pursuant to the Loan Agreement and the Amendments, the Company is bound during the term of the Loan Agreement and the Amendments by a variety of affirmative covenants, including, without limitation, certain information delivery requirements and notice requirements, and negative covenants, including, without limitation, restrictions on incurring certain additional indebtedness, making certain asset dispositions, entering into certain mergers, acquisitions or other business combination transactions or incurring any non-permitted lien or other encumbrance on the Company's assets. Upon the occurrence of an event of default under the Loan Agreement and the Amendments (subject to cure periods for certain events of default), all amounts owed by the Company thereunder would begin to bear interest at a rate that is 5.0% higher than the rate that would otherwise be applicable and may be declared immediately due and payable by the Collateral Agent. In the event of default by the Company, the Lenders would be entitled to exercise their remedies thereunder, including the right to accelerate the debt, upon which the Company may be required to repay all amounts then outstanding under the Loan Agreement and the Amendments, which could harm the Company's financial condition. The Company was in compliance with all applicable covenants set forth in the Loan Agreement and the Amendments as of December 31, 2018 and December 31, 2017. The principal payments due under the Loan Agreement and the Amendments have been classified as a current liability at December 31, 2018 and December 31, 2017 due to the considerations discussed in Note 1 and the assessment that the material adverse change clause under the Loan Agreement and the Amendments is not within the Company's control. The Company has not been notified of an event of default by the Lenders as of the date of the filing of this Form 10-K.

The Collateral Agent, for the benefit of the Lenders, has a perfected security interest in substantially all of the Company's property, rights and assets, except for intellectual property, to secure the payment of all amounts owed to the Lenders under the Loan Agreement.

Aggregate future minimum payments due under the Loan Facility as of December 31, 2018 were as follows (in thousands):

Year ending December 31,	Total
2019	6,168
2020	2,231
Total minimum payments	8,399
Less amount representing interest	(899)
Total notes payable as of December 31, 2018	7,500
Less unamortized debt discount and issuance costs	(104)
Less current portion of notes payable	(7,396)
Non-current portion of notes payable	$ —

9. Commitments and Contingencies

Commitments

The Company's operating lease obligations as of December 31, 2018 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. The lease was entered into in January 2014 and was amended several times since 2014. The lease was last amended in December 2017 to extend the expiration date to June 30, 2021, with an option to extend the lease for two additional years.

Aggregate non-cancelable future minimum rental payments under operating leases as of December 31, 2018, were as follows (in thousands):

Year Ending December 31,	Payments
2019	$ 562
2020	$ 578
2021	$ 294
Total rental payments	$ 1,434

The Company recognizes rent expense on a straight-line basis. The Company recorded rent expense of $0.5 million and $0.7 million for the years ended December 31, 2018 and 2017, 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 17,697 shares of preferred stock outstanding as of December 31, 2018 and 2017, respectively. These shares are non-voting Series B, Series C, and Series D Convertible Preferred Stock at a price of $840, $3,850, and $2,000 per share, respectively. Each share of non-voting Series B is convertible into 166 shares of common stock and each share of non-voting Series C Stock and Series D Stock is convertible into 1000 shares of common stock, provided that conversion will be prohibited if, as a result, the holder and its affiliates would own more than 9.98% of the total number of shares of common stock then outstanding. In the event of the Company's liquidation, dissolution, or winding up, holders of Series B, Series C, and Series D Stock will receive a payment equal to $0.0001 per share of Series B, Series C, and Series D Stock before any proceeds are distributed to the holders of Common Stock. Shares of Series B, Series C, and Series D Stock will generally have no voting rights, except as required by law and except that the consent of holders of a majority of the outstanding Series B and Series C Stock will be required to amend the terms of the Series B, Series C, and Series D Stock. Shares of the Series B, Series C, and Series D Stock will not be entitled to receive any dividends, unless and until specifically declared by the Company's board of directors, and will rank:

- senior to all of the Company's Common Stock;
- senior to any class or series of the Company's capital stock hereafter created specifically ranking by its terms junior to the Series B, Series C, and Series D Stock;
- on parity with any class or series of the Company's capital stock hereafter created specifically ranking by its terms on parity with the Series B, Series C, and Series D Stock;
- junior to any class or series of the Company's capital stock hereafter created specifically ranking by its terms senior to the Series B, Series C, and Series D Stock; in each case, as to distributions of assets upon the Company's liquidation, dissolution or winding up whether voluntarily or involuntarily.

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 Offerings

In December 2015, the Company completed underwritten offering of (i) 1,832,698 shares of its common stock, that included the exercise of the underwriter's over-allotment option of 239,047 shares, at a price of $5.04 per share, and (ii) 20,200 shares of its non-voting Series B Convertible Preferred Stock ("Series B Stock") at a price of $840.00 per share. Gross proceeds from the sale were $26.2 million and net proceeds were $25.2 million. Each share of non-voting Series B Stock is convertible into 166 shares of Sunesis common stock, provided that conversion will be prohibited if, as a result, the holder and its affiliates would own more than 9.98% of the total number of shares of Sunesis common stock then outstanding.

In October 2016, the Company completed underwritten offering of (i) 5,675,825 shares of its common stock at a price of $3.85 per share, and (ii) 1,558 shares of its non-voting Series C Convertible Preferred Stock ("Series C Stock") at a price of $3,850.00 per share. Gross proceeds from the sale were $27.9 million and net proceeds were $25.9 million. Each share of non-voting Series C Stock is convertible into 1,000 shares of Sunesis common stock, provided that conversion will be prohibited if, as a result, the holder and its affiliates would own more than 9.98% of the total number of shares of Sunesis common stock then outstanding.

In October 2017, the Company completed underwritten offerings of (i) 7,500,000 shares of its common stock and accompanying warrants to purchase 3,750,000 shares of its common stock at a price to the public of $2.00 for each share of common stock and warrant to purchase 0.5 shares of common stock, and (ii) 2,500 shares of its non-voting Series D Convertible Preferred Stock ("Series D Stock") and accompanying warrants to purchase 1,250,000 shares of its common stock at a price to the public of $2,000 for each share of Series D Stock and warrant to purchase 500 shares of common stock. The exercise price of the warrants was $3.00 per whole share of common stock. The warrants expired unexercised on October 28, 2018. Each share of non-voting Series D Stock is convertible into 1,000 shares of its common stock, provided that conversion will be prohibited if, as a result, the holder and its affiliates would own more than 9.98% of the total number of shares of its common stock then outstanding. Gross proceeds from the sale were $20.0 million and net proceeds were $18.5 million.

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. The most recent amendment to the Sales Agreement, made in November, 2017, provides for an increase in the aggregate gross sales under the Sales Agreement to $45.0 million. 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 years ended December 31, 2018 and 2017, the Company sold 617,967 shares and 5,321,151 shares, respectively, of common stock under the Sales Agreement, as amended, at an average price of approximately $2.38 per share and $2.72 per share, respectively, for gross and net proceeds of $1.4 million and $14.2 million, respectively, after deducting Cantor's commission. As of December 31, 2018, $43.6 million of common stock remained available to be sold under this facility.

Aspire Common Stock Purchase Agreement

In June 2018, the Company entered into a Common Stock Purchase Agreement (the "CSPA") with Aspire Capital Fund, LLC ("Aspire"), pursuant to which the Company could issue and sell shares of its common stock having an aggregate gross sales price of up to $15.5 million. Upon execution of the CSPA, the Company sold to Aspire 228,311 shares of common stock at a price of $2.19 per share, for total proceeds of $0.5 million. In addition, Aspire committed to purchasing up to an additional $15.0 million of common shares, at the Company's request, from time to time during a 24-month period at prices based on the market price at the time of each sale. Under the CSPA, on any trading day selected by the Company on which the closing price of its common stock is equal to or greater than $0.25 per share, the Company has the right, in its sole discretion, to present Aspire with a purchase notice directing Aspire to purchase up to 200,000 shares of common stock per business day, at a purchase price equal to the lesser of:

a) the lowest sale price of common stock on the purchase date; or

b) the arithmetic average of the three lowest closing sale prices during the 10 consecutive business days ending on the trading day immediately preceding the purchase date.

The Company also has the right to require Aspire to purchase up to an additional 30% of the trading volume of the shares for the next business day at a purchase price (the "VWAP Purchase Price"), equal to the lesser of: (i) the closing sale price of the shares on the purchase date, or (ii) ninety-seven percent (97%) of the next business day's volume weighted average price (each such purchase, a "VWAP Purchase"). The Company shall have the right, in its sole discretion, to determine a maximum number of shares and set a minimum market price threshold for each VWAP Purchase. The Company can only require a VWAP Purchase if the Company has also submitted a regular purchase on the notice date for the VWAP Purchase. There are no limits on the number of VWAP purchases that the Company may require.

There are no trading volume requirements or restrictions under the CSPA, and the Company will control the timing and amount of sales. Aspire has no right to require any sales by the Company, but is obligated to make purchases from the Company as directed by the Company in accordance with the CSPA There are no limitations on use of proceeds, financial or business covenants, restrictions on future fundings, rights of first refusal, participation rights, penalties or liquidated damages in the Purchase Agreement. The CSPA may be terminated by the Company at any time, at its discretion, without any cost to the Company. Aspire has agreed that neither it nor any of its agents, representatives and affiliates shall engage in any direct or indirect short-selling or hedging of common stock during any time prior to the termination of the CSPA. Any proceeds from the Company receives under the CSPA are expected to be used for working capital and general corporate purposes. The Company cannot request Aspire to purchase more than 2,000,000 shares per business day.

As consideration for Aspire's obligation under the CSPA, the Company issued 212,329 shares of common stock to Aspire as a commitment fee. This $0.4 million commitment fee and $0.1 million in other transaction costs were recorded in June 2018 as costs of equity financing, within additional paid-in capital. The Company also entered into a Registration Rights Agreement with Aspire. During the year ended December 31, 2018, the Company issued to Aspire a total of 2,390,640 shares for total net proceeds of $4.6 million. The shares were issued at an average price of $2.20 per share, excluding the 212,329 commitment shares issued. Aspire's remaining purchase commitment was $10.9 million as of December 31, 2018.

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 with various vesting schedules over three to four years, (iii) new 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, and (iv) continuing non-employee members of the board of directors, of which 1/12th of the shares subject to such options become exercisable each month following the date of grant over a one-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 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, 2018 and 2017, in accordance with the above, the number of shares of common stock available for issuance under the 2011 Plan was increased by 1,371,308 and 836,981 shares, respectively.

During the year ended December 31, 2018, options to purchase 1,622,248 shares of the Company's common stock were granted under the 2011 Plan. As of December 31, 2018, there were 755,075 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 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 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.

A total of 104,099 and 87,020 shares were issued under the 2011 ESPP during the year ended December 31, 2018 and December 31, 2017, respectively. As of December 31, 2018, there were 64,305 shares available for future issuance under the ESPP.

Warrants

Warrants to purchase shares of the Company's common stock outstanding as of December 31, 2018 were as follows (in thousands, except per share amounts):

Date Issued	Shares	Exercise Price Per Share	Expiration
February 2015	10	$ 13.32	February 2020
March 2016	208	$ 3.25	March 2021
Total warrants outstanding and exercisable	218		

Reserved Shares

Shares of the Company's common stock reserved for future issuance as of December 31, 2018 were as follows (in thousands):

	Shares Available for Future Grant	Outstanding Securities	Total Shares Reserved
Warrants	—	218	218
Convertible preferred stock	—	6,331	6,331
Stock option plans	755	4,160	4,915
Employee stock purchase plan	64	—	64
Total reserved shares of common stock	819	10,709	11,528

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 and recognized under the straight-line attribution method, assuming that all stock-based awards will vest. 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,	
	2018	2017
Research and development	$ 581	$ 865
General and administrative	903	2,059
Employee stock-based compensation expense	1,484	2,924
Non-employee stock-based compensation expense	1,153	109
Total stock-based compensation expense	$ 2,637	$ 3,033

Option Exchange Program

On June 9, 2017, we filed a Tender Offer Statement (TO) on Schedule TO relating to an option exchange program for its officers and employees (the Option Exchange) to exchange certain stock options to purchase up to an aggregate of 781,505 shares of its common stock that had been granted to eligible holders, for a lesser number of new stock options with a lower exercise price. Stock options with an exercise price greater than or equal to $8.00, and held by eligible holders in continuous service through the termination of the Option Exchange, were eligible for exchange in the program. An exchange ratio of 1.30 for 1 was applied to options priced from $8.00 to $19.99, and an exchange ratio of 1.75 for 1 was applied to options priced at $20.00 or greater.

As of the closing of the Option Exchange on July 10, 2017, 25 eligible holders had tendered an aggregate of 778,928 options for 543,650 new options to purchase shares of its common stock. Each new stock option was granted on July 10, 2017, pursuant to its 2011 Equity Incentive Plan with an exercise price per share of $2.62, which was the closing market price on the grant date of the new options. The exchange of stock options was treated as a modification for accounting purposes and resulted in an incremental expense of $50,957, for the vested options, which was calculated using the Black-Scholes option pricing model. The incremental expense together with the unamortized expense remaining on the unvested options is being amortized over the vesting period of the new options.

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 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,			
	2018		2017	
	Employees	Consultants	Employees	Consultants
Assumptions:				
Expected term (years)	4.3	9.8	4.8	9.7
Expected volatility	126.0%	117.6%	112.5%	121.6%
Risk-free interest rate	2.6%	2.8%	2.1%	2.4%
Expected dividend yield	0.0%	0.0%	0.0%	0.0%
Fair value:				
Weighted-average estimated grant date fair value per share	$ 0.96	$ 1.19	$ 2.68	$ 3.23
Options granted (in thousands)	1,204	418	1,280	287
Total estimated grant date fair value (in thousands)	$ 1,161	$ 497	$ 3,434	$ 926

The estimated fair value of stock options that vested in the years ended December 31, 2018 and 2017 was $2.0 million and $1.9 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. 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, 2017	3,532	$ 6.18		
Options granted	1,622	$ 1.20		
Options exercised	(49)	$ 3.34		
Options forfeited or expired	(945)	$ 8.91		
Outstanding as of December 31, 2018	4,160	$ 3.66	7.55	$ —
Vested and expected to vest as of December 31, 2018	4,160	$ 3.66	7.55	$ —
Exercisable as of December 31, 2018	2,118	$ 5.44	5.76	$ —

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, 2018.

The intrinsic value of options exercised during each of the years ended December 31, 2018 and 2017 was less than $0.1 million. As the Company believes it is probable 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 $2.8 million as of December 31, 2018, 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 2.8 years.

12. Income Taxes

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

	Year Ended December 31,	
	2018	2017
U.S. operations	$ (21,132)	$ (24,776)
Foreign operations	(5,483)	(10,682)
Loss before provision for income taxes	$ (26,615)	$ (35,458)

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 21% to pre-tax loss as follows (in thousands):

	Year Ended December 31,	
	2018	2017
Tax (benefit) at statutory federal rate	21.0 %	34.0 %
State tax (benefit), net of federal benefit	4.6	1.2
Foreign tax rate differential	(4.3)	(10.2)
Permanent differences	(0.6)	(1.0)
Research and development credits	1.0	0.7
Change in valuation allowance	(15.9)	127.2
Change in tax rate	—	(151.6)
Provision-to-return	(0.7)	—
Expired NOLs and research and development credits, and carryfowards	(2.2)	—
Non-qualified stock option cancellations	(2.9)	(0.3)
Effective tax rate	— %	— %

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,	
	2018	2017
Deferred tax assets:		
Federal and state net operating loss carry-forwards	$ 114,254	$ 109,714
Federal and state research credit carry-forwards	14,885	14,520
Capitalized research costs	6,134	6,304
Stock-based compensation	4,002	4,528
Property and equipment	79	83
Accrued liabilities	143	117
Gross deferred tax assets	139,497	135,266
Valuation allowance	(139,497)	(135,266)
Net deferred tax assets	$ —	$ —

The Company's unrecognized tax benefits relate to research and development tax credits claimed on the Company's tax returns. The research and development tax credits have not been utilized, are fully offset by a valuation allowance, and currently have no tax expense impact.

A reconciliation of the Company's beginning and ending amount of unrecognized tax benefits is follows (in thousands):

	December 31,	
	2018	2017
Unrecognized tax benefits at beginning of period	$ 1,769	$ 1,441
Increases related to current year tax positions	43	57
Increase related to change in tax rate	—	271
Unrecognized tax benefits at the end of period	$ 1,812	$ 1,769

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 $4.2 million and decreased by approximately $45.1 million during the years ended December 31, 2018 and 2017, respectively.

As of December 31, 2018, the Company had federal net operating loss carry-forwards of $448.2 million and federal research and development tax credit carry-forwards of $8.7 million. If not utilized, the federal net operating loss and tax credit carry-forwards will expire at various dates beginning in 2019. As of December 31, 2018, the Company had state net operating loss carry-forwards of $288.3 million, which expire beginning in 2028, and state research and development tax credit carry-forwards of $7.6 million, which do not expire.

Utilization of these net operating loss and tax credits carry-forwards may be subject to a substantial annual limitation due to the ownership change rules under Section 382 of the Internal Revenue Code of 1986, as amended (the "Code"). The limitations are applicable if an "ownership change," as defined in the Code, is deemed to have occurred or occurs in the future. The annual limitation may result in the expiration of net operating loss and credit carry-forwards before they can be utilized.

The Company recognizes the financial statement effect of tax positions when it is more likely than not that the tax positions will be sustained upon examination by the appropriate taxing authorities. As of December 31, 2018 and 2017, the Company had unrecognized tax benefits of $1.8 million.

On December 22, 2017, the 2017 Tax Cuts and Jobs Act (the Act") was enacted into law and the new legislation reduces the corporate tax rate to 21 percent, effectively January 1, 2018. Consequently, the Company remeasured the deferred tax assets and recorded a decrease in deferred tax assets and valuation allowance of $53.7 million as of December 31, 2017. The Company believes that the one-time transition tax does not apply because there were no post-1986 earnings and profits (E&P) previously deferred from US income taxes. The Company had reviewed the effects of global intangible low-taxed income ("GILTI") tax rules and does not expect any significant impact to its deferred tax assets. In accordance with SAB 118, the Company recorded provisional income tax effects from the Act as of December 31, 2017, and amounts were finalized as of December 31, 2018 with no adjustments made to the amounts previously recorded.

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, 2018.

14. Subsequent Events

In January 2019, the Company completed underwritten public offerings of (i) 23,000,000 shares of its common stock at a price to the public of $0.50 for each share of common stock, and (ii) 17,000 shares of its non-voting Series E Convertible Preferred Stock ("Series E Stock") at a price to the public of $500 for each share of Series E Stock. Gross proceeds from the sale were $20.0 million and net proceeds were approximately $18.4 million. Each share of non-voting Series E Stock is convertible into 1,000 shares of the Company's common stock, provided that conversion will be prohibited if, as a result, the holder and its affiliates would own more than 9.98% of the total number of shares of the Company's common stock then outstanding; provided, however, that a holder may, upon written notice, elect to increase or decrease this percentage (not to exceed the limits under Nasdaq Marketplace Rule 5635(b), to the extent applicable).

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 our evaluation as of December 31, 2018, the Company's interim 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 Securities Exchange Act 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 interim 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, 2018. 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, 2018, our internal control over financial reporting was effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended December 31, 2018 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 interim 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 interim Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal control over financial reporting can or will prevent all human error. A control system, no matter how well designed and implemented, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Furthermore, the design of a control system must reflect the fact that there are internal resource constraints, and the benefit of controls must be weighed relative to their corresponding costs. Because of the limitations in all control systems, no evaluation of controls can provide complete assurance that all control issues and instances of error, if any, within our company are detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur due to human error or mistake. Additionally, controls, no matter how well designed, could be circumvented by the individual acts of specific persons within the organization. The design of any system of controls is also based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated objectives under all potential future conditions.

ITEM 9B. *OTHER INFORMATION*

None.

PART III

Certain information required by Part III is omitted from this report because we will file with the SEC a definitive proxy statement pursuant to Regulation 14A, or the Proxy Statement, not later than 120 days after the year ended December 31, 2018, 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, 2018:

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)	4,160,356	(2)	$ 3.66	819,380	(3)
Equity Compensation Plans Not Approved by Stockholders	—		$ —	—	
Total	4,160,356		$ 3.66	819,380	

(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) 755,075 shares of common stock available for issuance under our 2011 Plan and (ii) 64,305 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 below:

ITEM 16. ***FORM 10-K SUMMARY***

None.

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	
3.8	Certificate of Designation of Series B Convertible Preferred Stock	8-K	000-51531	3.1	12/16/2015	
3.9	Certificate of Amendment to Amended and Restated Certificate of Incorporation	8-K	000-51531	3.1	9/7/2016	
3.10	Certificate of Designation of Series C Convertible Preferred Stock	8-K	000-51531	3.1	10/19/2016	
3.11	Certificate of Designation of Series D Convertible Preferred Stock	8-K	000-51531	3.1	10/26/2017	
3.12	Certificate of Designation of Series E Convertible Preferred Stock	8-K	000-51531	3.1	1/22/2019	
3.13	Certificate of Validation of Certificate of Amendment to Amended and Restated Certificate of Incorporation of the Registrant	10-Q	000-51531	3.11	8/8/2018	
4.1	Reference is made to Exhibits 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 3.10, 3.11, 3.12 and 3.13 above.					
4.2	Specimen Common Stock certificate of the Registrant	10-K	000-51531	4.2	3/29/2011	
4.3	Specimen Preferred Series B Stock Certificate	8-K	000-51531	4.1	12/16/2015	
4.4	Specimen Preferred Series C Stock Certificate	8-K	000-51531	4.1	10/19/2016	
4.5	Specimen Preferred Series D Stock Certificate	8-K	000-51531	4.1	10/26/2017	
4.6	Form of Common Stock Purchase Warrant	8-K	000-51531	4.2	10/26/2017	
4.7	Registration Rights Agreement	8-K	000-51531	4.1	6/25/2018	
4.8	Specimen Preferred Series E Stock Certificate	8-K	000-51531	4.1	1/22/2019	

Exhibit Number	Exhibit Description	Incorporated By Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.3†	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	
10.5*	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	
10.6*	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	
10.7	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	
10.8	Amended and Restated Collaboration Agreement, dated March 31, 2011, by and between the Registrant and Biogen MA Inc.	10-Q/A	000-51531	10.4	6/30/2011	
10.9	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	
10.10	Termination and Transition Agreement, dated March 31, 2011, by and between the Registrant, Biogen MA Inc. and Millennium Pharmaceuticals, Inc.	10-Q	000-51531	10.6	5/12/2011	
10.11*	Sunesis Pharmaceuticals, Inc. 2011 Employee Stock Purchase Plan	S-8	333-174732	99.2	6/6/2011	
10.12	Sales Agreement, dated August 11, 2011, between Sunesis Pharmaceuticals, Inc. and Cantor Fitzgerald & Co.	8-K	000-51531	10.1	8/11/2011	
10.13*	Forms of Stock Option Grant Notice and Option Agreement under the 2011 Equity Incentive Plan	10-K	000-51531	10.57	3/14/2012	
10.14*	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	
10.15†	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	
10.16	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	
10.17	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	
10.18†	Second Amended and Restated Collaboration Agreement, dated December 16, 2013, by and between the Registrant and Biogen MA Inc.					X

Exhibit Number	Exhibit Description	Incorporated By Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.19†	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	
10.20	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	10.48	3/6/2014	
10.21	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	
10.22	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	10-K	000-51531	10.44	3/12/2015	
10.23	Third Amendment to Office Lease, dated September 1, 2015, 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	10.5	11/5/2015	
10.24	Amendment No. 2 to Sales Agreement, dated August 11, 2011, between the Registrant and Cantor Fitzgerald & Co., dated March 12, 2015	8-K	000-51531	10.1	3/12/2015	
10.25	Loan and Security Agreement, dated March 31, 2016, by and among the Registrant, Western Alliance Bank, Solar Capital Ltd. And Western Alliance, as Collateral Agent	10-Q	000-51531	10.3	5/9/2016	
10.26	Warrant, dated March 31, 2016, issued to Solar Capital Ltd.	10-Q	000-51531	10.4	5/9/2016	
10.27	Warrant, dated March 31, 2016, issued to Western Alliance Bank	10-Q	000-51531	10.5	5/9/2016	
10.28	Fourth Amendment to Office Lease, dated May 11, 2016, 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	10.4	7/29/2016	
10.29*	Amended and Restated Non-Employee Director Compensation Policy	10-Q	000-51531	10.2	5/8/2017	
10.30*	2011 Equity Incentive Plan, as amended	DEF 14A	000-51531	Appendix A	4/20/2017	
10.31	First Amendment to Loan and Security Agreement	8-K	000-51531	10.1	6/30/2017	
10.32	Second Amendment to Loan and Security Agreement	10-Q	000-51531	10.1	11/2//2017	
10.33	Amendment No. 3 to Sales Agreement, dated August 11, 2011, between the Registrant and Cantor Fitzgerald & Co., dated November 7, 2017	8-K	000-51531	10.1	11/7//2017	

Exhibit Number	Exhibit Description	Incorporated By Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.34	Fifth Amendment to Office Lease, dated October 17, 2017, 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	10.42	3/9/2018	
10.35	Partial Lease Termination Agreement to Office Lease, dated November 19, 2017, 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	10.43	3/9/2018	
10.36*	Executive Severance Benefits Agreement, dated November 30, 2017, by and between the Registrant and William P. Quinn	10-K	000-51531	10.45	3/9/2018	
10.37*	2018 Bonus Program	8-K	000-51531	10.1	2/5/2018	
10.38	Common Stock Purchase Agreement, dated June 25, 2018, between the Registrant and Aspire Capital Fund, LLC.	8-K	000-51531	10.1	6/25/2018	
10.39*	2019 Bonus Program	8-K	000-51531	10.1	2/4/2019	
21.1	Subsidiaries of the Registrant					X
23.1	Consent of Independent Registered Public Accounting Firm					X
24.1	Power of Attorney (included on Signature page)					X
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Exchange Act					X
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Exchange Act					X
32.1#	Certification of Chief Executive Officer and Chief Financial Officer pursuant to 13a-14(b) or 15d-14(b) of the Exchange Act					X
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.

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 7, 2019.

SUNESIS PHARMACEUTICALS, INC.

By: /S/ WILLIAM P. QUINN
William P. Quinn
Chief Financial Officer, Senior Vice President, Finance and Corporate Development

POWER OF ATTORNEY KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Dayton Misfeldt and William P. Quinn, 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 7, 2019
/S/ DAYTON MISFELDT Dayton Misfeldt	Interim Chief Executive Officer and Director *(Principal Executive Officer)*	March 7, 2019
/S/ WILLIAM P. QUINN William P. Quinn	Chief Financial Officer, Senior Vice President, Finance and Corporate Development *(Principal Financial Officer and Principal Accounting Officer)*	March 7, 2019
/S/ STEVE CARCHEDI Steve Carchedi	Director	March 7, 2019
/S/ STEVEN B. KETCHUM, PH.D Steven B. Ketchum, Ph. D.	Director	March 7, 2019
/S/ HOMER L. PEARCE, PH.D. Homer L. Pearce, Ph.D.	Director	March 7, 2019
/S/ DAVID C. STUMP, M.D. David C. Stump, M.D.	Director	March 7, 2019
/S/ H. Ward wolff H. Ward Wolff	Director	March 7, 2019

{ * } = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, IS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 24B-2 OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED.

THE NOTATION "[RESERVED]" IS ORIGINAL, IS CURRENTLY IN THE DOCUMENT AND DOES NOT REFLECT INFORMATION REDACTED PURSUANT TO RULE 24B-2 OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED.

EXHIBIT 10.18

SECOND AMENDED AND RESTATED COLLABORATION AGREEMENT

This COLLABORATION AGREEMENT (this " Agreement"), effective as of December 16, 2013 (the "Effective Date"), is made by and between Sunesis Pharmaceuticals, Inc., a Delaware corporation, having a principal place of business at 341 Oyster Point Boulevard, South San Francisco, CA 94080 ("Sunesis"), and Biogen Idec MA Inc., a Massachusetts corporation, having a principal place of business at 14 Cambridge Center, Cambridge, MA ("Biogen Idec"). Sunesis and Biogen Idec are sometimes referred to herein individually as a "Party" and collectively as the "Parties".

BACKGROUND

A. Sunesis has developed proprietary technology and know-how for the discovery and optimization of small molecules that bind to enzyme targets and protein-protein interfaces, with special expertise towards kinases;

B. Biogen Idec engages in the research, development and commercialization of pharmaceutical compounds;

C. Sunesis and Biogen Idec are parties to that certain Collaboration Agreement, dated August 27, 2004 (the "OCA" and August 27, 2004, the "OCA Effective Date") pursuant to which, (i) the Parties agreed to collaborate to discover and develop small molecules that modulate certain Targets, including the BTK Target, with the goal of delivering compounds with desired activity and selectivity; (ii) Biogen Idec agreed to acquire exclusive licenses under the Collaboration Technology to develop and commercialize Target Selective Compounds in the Field resulting from the collaboration, as well as certain other rights to the results of the collaboration (the "Non-exclusive License Rights"), and Sunesis agreed to grant to Biogen Idec such licenses, all on the terms and conditions of the OCA; and (iii) Biogen Idec has assigned and exclusively licensed to Millennium Pharmaceuticals, Inc. ("Millennium") small molecules that modulate two Targets, Raf and PDK (each of which were Collaboration Targets under the OCA), such assignment the subject of a separate consent and agreement entered into by and between Millennium and Sunesis pursuant to an agreement of even date herewith (the "Millennium-Sunesis-Biogen Idec Agreement") together with an Asset Transfer Agreement entered into by and between Biogen Idec and Millennium of even date herewith;

D. In consideration for prepayment of certain milestones under the OCA and a payment from Millennium to Sunesis upon entry into that certain Amended and Restated Collaboration Agreement, dated as of March 31, 2011 (the "ARCA" and March 31, 2011, the "ARCA Effective Date") the Parties agreed to continue their collaboration solely with respect to the BTK Target and the Non-exclusive License Rights solely and entirely under the terms of the ARCA;

E. Under the terms of the ARCA, Biogen Idec has synthesized the BTK inhibitor known as BIIB062; and

F. The Parties now wish to amend and restate the ARCA to allow Sunesis to develop, manufacture and commercialize BIIB062 in the Oncology Field pursuant to an exclusive license to all of Biogen Idec's rights, title and interest in BIIB062 under the BIIB062 Technology and to otherwise continue their collaboration under the terms of this Agreement.

NOW, THEREFORE, for and in consideration of the covenants, conditions and undertakings hereinafter set forth, it is agreed by and between the Parties as follows:

ARTICLE 1
DEFINITIONS

As used herein, the following terms will have the meanings set forth below:

1.1. "Active Compound" shall mean a soluble chemical compound that can bind non-covalently to the Collaboration Target or a Target for which such compound is counterscreened, in each case where such compound { * }.

1.2. "Affiliate" of a Party shall mean any corporation or other business entity which during the Term of this Agreement Controls, is Controlled by or is under common Control with such Party but only for so long as such entity Controls, is Controlled by, or is under common control with such Party. With respect to a particular entity, "Control" shall mean the ownership directly or indirectly of fifty percent (50%) or more of the stock entitled to vote for the election of directors, and for nonstock organizations, of the equity interests entitled to control the management of such entity.

1.3. "{ * } Target" shall mean the human { * } protein kinase together with the { * } protein family members { * }-A, { * }-B, and { * }-C.

1.4. "{ * }" shall mean that certain BTK inhibitor known as { * } and having the chemical name { * }.

1.5. "BIIB062" shall mean that certain BTK inhibitor known as BIIB062 and having the chemical name { * }.

1.6. "BIIB062 Patents" shall mean all patents, patent applications and invention disclosures the subject of which is an invention that (i) was conceived and reduced to practice jointly, or under authority of, both Parties after August 25, 2004, but prior to June 30, 2011 in the course of activities directed to the discovery, research, or development of the Collaboration Derivative identified as BIIB062 that specifically covers BIIB062 or (ii) claims or covers an invention or was practiced by either Party, their Affiliates or Sublicensees in the development, manufacture or commercialization of BIIB062 or a BIIB062 Product. It is to be understood that BIIB062 Patents shall include any divisionals, continuations, continuations-in-part, reissues, reexaminations, extensions or other governmental actions which extend any such patent applications or patents, and any substitutions, confirmations, registrations, revalidations or foreign counterparts of any of the foregoing to the extent consistent with parts (i) or (ii) of this

Section 1.6. The BIIB062 Patents as of the Effective Date of this Agreement are set forth in Exhibit 1.6.

1.7. "BIIB062 Product" shall mean a pharmaceutical preparation for sale by prescription, over-the-counter, or any other method for use in the Oncology Field that incorporates BIIB062 as an active drug substance.

1.8. "BIIB062 Technology" shall mean (i) Biogen Idec Collaboration Technology and (ii) Biogen Idec's interest in the Joint Collaboration Technology, but in each case, solely to the extent (i) and (ii) are necessary or useful for the development, manufacture and commercialization of BIIB062 or BIIB062 Product in the Oncology Field.

1.9. "BIIB062 Terms" shall mean all provisions of this Agreement which expressly, or otherwise by their terms, relate to the manufacture, development and commercialization of BIIB062 or the Parties' rights and obligations with respect thereto, but only to the extent that such provisions relate thereto, including but not limited to, Sections 3.4, 3.5.2, 3.6, 4.6, 6.4, 6.5, 6.8, 7.4.1, 7.4.2, 7.4.3, 7.4.4, 7.5.3(c), 7.6.3, 7.7, ARTICLE 8, Section 9.5 and ARTICLES 10 through 16.

1.10. "Biogen Idec Collaboration Know-How" shall mean any Know-How: (i) made or developed solely by or under authority of personnel of Biogen Idec or any of its Controlled Affiliates in the course of performing activities directed to the Collaboration Target pursuant to the OCA under the OCA Research Program during the OCA Research Term; or (ii) made or developed solely by or under authority of personnel of Biogen Idec or any of its Controlled Affiliates after August 25, 2004, but prior to June 30, 2011 in the course of activities specifically related to the discovery, research, or development of Collaboration Derivatives and BIIB062. Notwithstanding the foregoing, Biogen Idec Collaboration Know-How shall in all cases exclude Sunesis Core Technology, Joint Collaboration Know-How and Excluded Compounds.

1.11. "Biogen Idec Collaboration Patents" shall mean all patents, patent applications and invention disclosures the subject of which is an invention that was: (i) conceived in the course of performing activities directed to the Collaboration Target pursuant to the OCA under the OCA Research Program during the OCA Research Term and is reduced to practice prior to the ARCA Effective Date solely by or under authority of personnel of Biogen Idec or any of its Controlled Affiliates; or (ii) conceived and reduced to practice solely by or under authority of personnel of Biogen Idec or any of its Controlled Affiliates after August 25, 2004, but prior to June 30, 2011 in the course of activities directed to the discovery, research, or development of Collaboration Compounds. It is to be understood that Biogen Idec Collaboration Patents shall include any divisionals, continuations, continuations-in-part, reissues, reexaminations, extensions or other governmental actions which extend any of the patent applications or patents in (i) or (ii) above, and any substitutions, confirmations, registrations, revalidations or foreign counterparts of any of the foregoing. Notwithstanding the foregoing, Biogen Idec Collaboration Patents shall in all cases exclude Sunesis Core Technology and Joint Collaboration Patents.

1.12. "Biogen Idec Collaboration Technology" shall mean all Biogen Idec Collaboration Patents and Biogen Idec Collaboration Know-How.

1.13. "Biogen Idec Derivative" shall mean a chemical compound that is Synthesized solely by personnel of Biogen Idec or any of its Controlled Affiliates in the course of activities directed to a Target that is not then the Collaboration Target, where such chemical compound is not a Collaboration Derivative.

1.14. "BTK Target" shall mean the human protein Bruton's tyrosine kinase designated as the Collaboration Target by Biogen Idec under the OCA.

1.15. "Co-Funding Option" shall mean the option of Sunesis to fund a portion of the post Phase I Development Costs of a Product in the Co-Funded Territory as provided in Section 3.2. The "Co-Funded Territory" shall have the meaning set forth in Section 3.2.1

1.16. "Collaboration Compound" shall mean each compound that is: (i) a Synthesized Compound, (ii) a Collaboration Derivative Synthesized by or under authority of either Party or any of its Controlled Affiliates, after August 25, 2004, but prior to June 30, 2011, (iii) a Licensed Pre-Existing Compound, (iv) Covered by a Valid Claim of a Joint Collaboration Patent or a Sunesis Collaboration Patent, or (v) Covered by a Valid Claim of a patent within the Sunesis Core Technology as applied (A) to the Collaboration Target by or under authority of either Party or any of its Controlled Affiliates, or (B) to a Target other than the Collaboration Target by or under authority of Biogen Idec or any of its Controlled Affiliates. Notwithstanding the foregoing, BIIB062 shall not constitute a Collaboration Compound.

1.17. "Collaboration Derivative" shall mean a chemical compound Synthesized in the course of activities directed to a Target using as a starting point one or more: (i) Synthesized Compound(s); (ii) Licensed Pre-Existing Compound(s); (iii) compound(s) that are Covered by a Valid Claim of a Joint Collaboration Patent or Sunesis Collaboration Patent; (iv) compound(s) that are Covered by a Valid Claim of a patent within the Sunesis Core Technology as applied (A) to the Collaboration Target by or under authority of either Party or any of its Controlled Affiliates, or (B) to a Target other than a Collaboration Target by or under authority of Biogen Idec or any of its Controlled Affiliates; or (v) Kinase-Active Fragment(s).

1.18. "Collaboration Know-How" shall mean all Biogen Idec Collaboration Know-How, Sunesis Collaboration Know-How and Joint Collaboration Know-How.

1.19. "Collaboration Patents" shall mean all Biogen Idec Collaboration Patents, Sunesis Collaboration Patents and Joint Collaboration Patents.

1.20. "Collaboration Target" shall mean the BTK Target.

1.21. "Collaboration Technology" shall mean all Collaboration Patents and Collaboration Know-How.

1.22. "Combination Product" shall mean any of (i) a Product that incorporates two or more active drug substances including a Target Selective Compound, (ii) a Sunesis Product that incorporates two or more active drug substances including an Other Compound, or (iii) an Other Biogen Idec Product that incorporates two or more active drug substances including an Other Compound; in each case where at least one of the active drug substances is neither a Target Selective Compound, nor an Other Compound (respectively).

1.23. "Commercially Reasonable and Diligent Efforts" shall mean { * }.

1.24. "Confidential Information" shall mean, with respect to a Party, all information (and all tangible and intangible embodiments thereof), which is owned or controlled by such Party, and (x) was disclosed by such Party to the other Party as confidential information pursuant to the OCA or ARCA or (y) is disclosed by such Party to the other Party pursuant to this Agreement. Notwithstanding the foregoing, Confidential Information of a Party shall not include information which, and only to the extent, the receiving Party can establish by written documentation (a) has been generally known prior to disclosure of such information by the disclosing Party to the receiving Party; (b) has become generally known, without the fault of the receiving Party, subsequent to disclosure of such information by the disclosing Party to the receiving Party; (c) has been received by the receiving Party at any time from a source, other than the disclosing Party, rightfully having possession of and the right to disclose such information free of confidentiality obligations; (d) has been otherwise known by the receiving Party free of confidentiality obligations prior to disclosure of such information by the disclosing Party to the receiving Party; or (e) is independently developed without reference to or use of the Confidential Information of the disclosing Party. For clarity, except as otherwise expressly provided in this Agreement, Sunesis Collaboration Technology, Joint Collaboration Technology and the Licensed Pre-Existing Technology shall be deemed Confidential Information of both Biogen Idec and Sunesis. For clarity, Biogen Idec Collaboration Technology shall be deemed Confidential Information solely of Biogen Idec.

1.25. "Covered" shall mean, with respect to a compound and a Valid Claim, that the manufacture, use, sale, offer for sale or importation of such compound, but for the licenses or ownership rights granted herein, would infringe such Valid Claim.

1.26. "Development" shall mean all research and pre-approval development and regulatory activities regarding the Product. "Development" shall include, without limitation, all pre-approval activities related to research, optimization and design of the appropriate molecule and identification of back-ups, preclinical testing, test method development and stability testing, toxicology, formulation, process development, manufacturing scale-up, qualification and validation, quality assurance/quality control, clinical studies, manufacturing clinical supplies, regulatory affairs, statistical analysis and report writing, technology transfer, market research and development, and all other pre-approval activities. When used as a verb, "Develop" shall mean to engage in Development.

1.27. "Development Candidate" shall mean a Collaboration Compound designated by Biogen Idec as a Development Candidate in accordance with Section 2.6.

1.28. "Development Costs" shall mean the costs and expenses associated with Development activities actually incurred by the Parties or their Affiliates for a particular Product during the measurement period and in the territories described in Section 3.2.4(d). The costs and expenses associated with Development activities shall include, { * }. In determining "Development Costs" chargeable under this Agreement, each Party will use its respective project accounting systems, and will review and approve its project accounting systems and methodologies with the other Party. The Parties hereby agree that efforts of the employees of a Party or its Affiliates in performing its activities hereunder shall be charged as Development

Costs at the FTE Rate. Notwithstanding anything in this Section 1.28 to the contrary, only those Development Costs that are contemplated by the Co-Development Plan and Budget or were otherwise approved by the JSC shall be chargeable by a Party as Development Costs. It is further understood that the activities of the following groups or functions shall not be chargeable as Development Costs: Corporate Administration, Human Resources, Legal, Business Development, Finance, Corporate Communication and Public Affairs. All payments made by a Party to a Third Party in connection with the performance of its activities under the Co-Development Plan and Budget shall be charged as Development Costs at such Party's actual out-of-pocket cost. Expenses incurred by a Party for equipment, materials and supplies utilized in performing its activities under the Co-Development Plan and Budget shall not be separately charged as Development Costs, except for those expenses incurred by a Party, with the prior written consent of the JSC as set forth in the Co-Development Plan and Budget, in the purchase or making of equipment, materials or supplies (other than common laboratory supplies, e.g., pipettes, test tubes, petri dishes, reagents, and the like) that are to be used exclusively in connection with the performance of such Party's activities under the Co-Development Plan and Budget (e.g., laboratory animals, placebo supplies, etc.), which expenses shall be charged as Developments Cost at such Party's actual out-of-pocket expense incurred in purchasing or making such equipment, materials or supplies.

1.29. "Diligence Summary" shall mean a summary of research, development and commercialization activities with respect to the Collaboration Target that (i) were performed by the reporting Party or its Third Party collaborators in the previous { * } period (or shorter period from the prior report or relevant Target designation, if applicable), and (ii) as of the date the Diligence Report, are planned in good faith for the following { * } period. For clarity, it is understood and acknowledged that in providing a Diligence Report, a Party shall not be required to disclose scientific results, specific research activities or the identity of any Third Party collaborator or potential collaborator, but shall at a minimum provide a summary of the total number of FTEs dedicated or planned to be dedicated to the Development and commercialization of Collaboration Compounds that are specifically directed at the Collaboration Target, and a summary of the functional allocation of such FTEs.

1.30. "Excluded Compounds" shall mean any compound, to the extent the same is: (i) disclosed in either Party's patents or patent applications as of August 25, 2004; (ii) in the possession of either Party as of August 25, 2004 (as reflected in the books and records of such Party); (iii) acquired by a Party from a Third Party after August 25, 2004 by way of a merger with, or acquisition of, such Third Party; or (iv) independently developed by a Party outside of performance of the OCA pursuant to the OCA Research Program without use of or access to any Collaboration Technology, or any Confidential Information of the other Party; in each of (i) through (iv) above, as evidenced by such Party's contemporaneous written records. Notwithstanding the foregoing, Excluded Compounds shall not include Licensed Pre-Existing Compounds. Further, both Parties agree that there are no Sunesis Excluded Compounds that are Target Selective against the BTK Target as of the Effective Date.

1.31. "Field" shall mean the treatment, prevention and/or diagnosis of disease in humans through modulation of the Collaboration Target. For the avoidance of doubt, the scope of the Field shall not extend to activities of the Parties with protein, peptide or nucleic acid

therapeutics directed to biological targets. The term peptide therapeutics in the preceding sentence shall mean { * }.

1.32. "FTE" shall mean, with respect to a Party, the equivalent of the work time of a full-time scientist or a full-time project team leader over a twelve-month period (including normal vacations, sick days and holidays), equal to at least { * } ({ * }) weeks of work. In the case of less than a full-time person, the portion of an FTE year devoted to activities hereunder by such person shall be determined by dividing the number of days during any twelve-month period devoted by such person to activities hereunder by the total number of working days of such person's full-time scientist during such twelve-month period. "FTE Rate" for both Parties shall mean ${ * } per annum per FTE as of December 31, 2005 and thereafter, the FTE Rate will be adjusted by the Inflation Index. As used herein, "Inflation Index" shall mean the percentage increase in the Consumer Price Index for all Urban Consumers, as published by the U.S. Department of Labor, Bureau of Statistics, since the OCA Effective Date.

1.33. "Gross Sales" shall mean the gross amount invoiced by either Party or its Affiliates to Third Parties for sales of a Product or BIIB062 Product and the net royalty or other amounts received by either Party or any of its Affiliates in such country pursuant to licenses or other agreements with Third Parties with respect to sales of a Product or BIIB062 Product (as applicable).

1.34. "Joint Collaboration Know-How" shall mean any Know-How: (i) made or developed jointly by, or under authority of, both Parties in the course of performing activities directed to the Collaboration Target pursuant to the OCA under the OCA Research Program during the OCA Research Term; (ii) made or developed jointly by, or under authority of, both Parties after August 25, 2004, but prior to June 30, 2011 in the course of activities specifically related to the discovery, research, or development of Collaboration Derivatives; (iii) that is a Synthesized Compound; or (iv) that is a Collaboration Derivative Synthesized by or under authority of either Party or any of its Controlled Affiliates, after August 25, 2004, but prior to June 30, 2011. Notwithstanding the foregoing, Joint Collaboration Know-How shall in all cases exclude Sunesis Core Technology, Excluded Compounds and Biogen Idec Derivatives.

In addition, notwithstanding anything in subsections (i) through (iv) of this Section 1.34, Joint Collaboration Know-How shall not include any Know-How that was not made or developed in the course of performing activities directed to the Collaboration Target pursuant to the OCA under the OCA Research Program during the OCA Research Term.

1.35. "Joint Collaboration Patents" shall mean all patents, patent applications and invention disclosures the subject of which is an invention that is: (i) conceived in the course of performing activities directed to the Collaboration Target pursuant to the OCA under the OCA Research Program during the OCA Research Term and is reduced to practice prior to the ARCA Effective Date jointly by, or under authority of, both Parties; (ii) conceived and reduced to practice jointly by, or under authority of, both Parties after August 25, 2004, but prior to June 30, 2011 in the course of activities directed to the discovery, research, or development of Collaboration Derivatives; (iii) conceived in the course of performing the OCA pursuant to the OCA Research Program during the OCA Research Term and reduced to practice prior to the ARCA Effective Date using Joint Collaboration Know-How, Sunesis Collaboration Know-How

or Sunesis Core Technology by or under authority of personnel of Biogen Idec or any of its Controlled Affiliates; or (iv) conceived and reduced to practice using Joint Collaboration Know-How, Sunesis Collaboration Know-How or Sunesis Core Technology by or under authority of personnel of Biogen Idec or any of its Controlled Affiliates after August 25, 2004, but prior to June 30, 2011 in the course of activities directed to the discovery, research, or development of Collaboration Derivatives. It is to be understood that Joint Collaboration Patents shall include any divisionals, continuations, continuations-in-part, reissues, reexaminations, extensions or other governmental actions which extend any of the patent applications or patents in (i), (ii), (iii) or (iv) above, and any substitutions, confirmations, registrations, revalidations or foreign counterparts of any of the foregoing. For clarity, the inventions described in subsections (iii) and (iv) above are limited to those inventions directed at or comprising compositions of matter that modulate Targets and/or methods of use thereof in modulating Targets. Notwithstanding the foregoing, Joint Collaboration Patents shall in all cases exclude Sunesis Core Technology.

1.36. "Joint Collaboration Technology" shall mean all Joint Collaboration Patents and Joint Collaboration Know-How.

1.37. "Kinase" shall mean a human enzyme, the primary biological function of which is to catalyze transfer of phosphate from adenosine triphosphate.

1.38. "Kinase-Active Fragment" shall mean a non-tethered intermediate compound of a tethered compound (as that term is described in U.S. Patent number 6,335,155 B1), where such tethered compound (i) is either (A) a compound that binds to the purine binding site of a Kinase, or (B) a compound that binds to the adaptive region of a Kinase; (ii) was actually made or used by either Party alone or by both Parties jointly during the OCA Research Term in the course of activities directed to a Target that was then a "Collaboration Target" (as defined in the OCA) in the performance of the OCA Research Program in accordance with the then-current OCA Research Plan; and (iii) exhibits structure activity relationships and specific binding to one or more Kinase. For clarity, "intermediate compound" as used in this Section 1.38 shall mean that portion of the tethered compound which does not contain the linking or tethering moiety.

1.39. "Know-How" shall mean any data, inventions, methods, proprietary information, processes, techniques, technology, or material (including biological or other materials).

1.40. "Licensed Pre-Existing Compounds" shall mean any compound that is (i) Target Selective against the Collaboration Target and (ii) in the possession of Sunesis or disclosed in a patent or patent application owned or controlled by Sunesis, in each case at any time after August 25, 2004, but prior to November 25, 2004. Notwithstanding anything else in this Section 1.40, Licensed Pre-Existing Compounds shall exclude in all cases any compound that is Target Selective against the { * } Target.

1.41. "Licensed Pre-Existing Know-How" shall mean any Know-How specifically related to Licensed Pre-Existing Compounds owned or controlled by Sunesis at any time after August 25, 2004, but prior to November 25, 2004.

1.42. "Licensed Pre-Existing Patents" shall mean any patent or patent application directed at or comprising compositions of matter that modulate the Collaboration Target and/or

methods of use thereof in modulating the Collaboration Target owned or controlled by Sunesis at any time after August 25, 2004, but prior to November 25, 2004, as well as any divisionals, continuations, continuations-in-part, reissues, reexaminations, extensions or other governmental actions which extend any of such patent applications or patents, and any substitutions, confirmations, registrations, revalidations or foreign counterparts of any of the foregoing.

1.43. "Licensed Pre-Existing Technology" shall mean all Licensed Pre-Existing Patents and Licensed Pre-Existing Know-How.

1.44. "Main Terms" shall mean all provisions of this Agreement other than the BIIB062 Terms.

1.45. "Major Market" shall mean Canada, France, Germany, Italy, Spain, Japan, the United Kingdom or the United States.

1.46. "NDA" shall mean a New Drug Application (or its equivalent), as defined in the U.S. Food, Drug and Cosmetic Act and the regulations promulgated thereunder, or any corresponding or similar application, registration or certification in any jurisdiction for marketing authorization of a product.

1.47. "Net Sales" shall mean, with respect to a Product or BIIB062 Product, Gross Sales less the following deductions to the extent actually paid, granted or accrued:

(i) sales returns and allowances on the sales of a Product or BIIB062 Product (as applicable), including trade, quantity, prompt pay and cash discounts and any other adjustments, including those granted on account of price adjustments or billing errors;

(ii) credits or allowances given or made for rejection or return of, and for uncollectible amounts on, previously sold Product or BIIB062 Product (as applicable) or for rebates or retroactive price reductions (including Medicare, Medicaid, managed care and similar types of rebates and chargebacks);

(iii) to the extent not already deducted or excluded from the gross amount invoiced or subsequently recovered as a credit or refund, taxes, duties or other governmental charges levied on or measured by the billing amount for a Product or BIIB062 Product (as applicable), as adjusted for rebates and refunds, which, for the avoidance of doubt, shall not include any tax, duty, or other charge imposed on or measured by net income (however denominated), or any franchise taxes, branch profits taxes, or similar tax;

(iv) to the extent not already deducted or excluded from the gross amount invoiced or subsequently recovered as a credit or refund, customs or excise duties, sales tax, consumption tax, value added tax, and other taxes (except income taxes), as adjusted for rebates and refunds;

(v) pharmaceutical excise taxes (such as those imposed by the United States Patient Protection and Affordable Care Act of 2010 (Pub.L. No. 111-48) and other comparable laws) applicable to a Product or BIIB062 Product (as applicable);

(vi) charges for freight and insurance directly related to the distribution of a product, to the extent not already deducted or excluded from the gross amount invoiced or subsequently recovered as a credit or refund, for sales of a Product or BIIB062 Product (as applicable);

(vii) credits for allowances given or made for wastage replacement for a Product or BIIB062 Product (as applicable); and

(viii) wholesaler and distributor administration fees applicable to a Product or BIIB062 Product (as applicable).

In any event, all of the foregoing deductions shall be taken in accordance with United States Generally Accepted Accounting Principles applied consistently to all products sold by a Party (including the Product or BIIB062 Product (as applicable) with respect to which royalties shall be payable under this Agreement). For clarity, deductions taken shall be applied to all products (including the Product or BIIB062 Product (as applicable) with respect to which royalties shall be payable under this Agreement) of a Party such that any of the deductions shall not disproportionately burden the Product or BIIB062 Product (as applicable) with respect to which Net Sales are calculated. In any event, deductions shall be taken only once with respect to the foregoing items subject to deduction regardless of whether such deduction may be included in more than one deductible category (i.e., no double dipping).

If a sale, transfer or other disposition with respect to a Product or BIIB062 Product (as applicable) is made for consideration other than cash or is not at arm's length, then the Net Sales from such sale, transfer or other disposition shall be the arm's length fair market value thereof. For purposes of this Agreement, "sale" shall mean any transfer or other distribution or disposition, but shall not include transfers or other distributions or dispositions of product, at no charge, for pre-clinical, clinical or regulatory purposes or in connection with patient assistance programs or other charitable purposes or to physicians or hospitals for promotional purposes.

In the event that a Product or BIIB062 Product (as applicable) is sold in the form of a Combination Product, Net Sales for the Combination Product shall be determined by multiplying actual Net Sales of the Combination Product (determined by reference to the definition of Net Sales set forth above) during the royalty payment period by the fraction A/A+B where A is the average sale price of products containing BIIB062, the Target Selective Compound, or Other Compound as is contained in such Combination Product as the sole active drug substance when sold separately in finished form (an "Agreement Product"), and B is the average sales price of products containing only the other active ingredients when sold separately in finished form, in each case during the applicable royalty payment period in the country in which the sale of the Combination Product was made, or if sales of both types of products did not occur in such period, then in the most recent royalty payment period in which sales of both occurred. Where the Agreement Product is sold separately in finished form but the other ingredients are not, Net Sales for the Combination Product shall be determined by multiplying actual Net Sales of the Combination Product (determined by reference to the definition of Net Sales set forth above) during the royalty payment period by the ratio of the average per-unit sale price of the Agreement Product when sold separately in finished form to the average per-unit Net Sales of the Combination Product, in each case during the applicable royalty payment period in the country in which the sale of the Combination Product was made. Where the other active

ingredients are sold separately in finished form but the Agreement Product is not, Net Sales for the Combination Product shall be determined by multiplying actual Net Sales of the Combination Product (determined by reference to the definition of Net Sales set forth above) during the royalty payment period by the difference obtained by subtracting from one (1) the ratio of the average per-unit sale price of products containing only the other active ingredient when sold separately in finished form to the average per-unit Net Sales of the Combination Product, in each case during the applicable royalty reporting period in the country in which the sale of the Combination Product was made. In the event that such average sales price cannot be determined for either of the Agreement Product or for products containing only the other active ingredient included in the Combination Product, Net Sales for purposes of determining payments under this Agreement shall be determined by good faith negotiations between the Parties.

1.48. "Non-Kinase Other Biogen Idec Product" shall mean an Other Biogen Idec Product that does not contain any Other Compounds that are directed at a Kinase.

1.49. "OCA Research Plan" shall mean the plan of research agreed upon and executed by the Parties pursuant to the OCA.

1.50. "OCA Research Program" shall mean the activities undertaken by the Parties pursuant to the OCA and the OCA Research Plan, during the OCA Research Term

1.51. "OCA Research Term" shall mean the period commencing on August 25, 2004, and ending June 30, 2008.

1.52. "Oncology Field" shall mean the treatment, prevention and/or diagnosis of oncologic and malignant hematologic conditions in humans, including myelodysplastic syndrome and other myeloproliferative disorders.

1.53. "Other Biogen Idec Product" shall mean a pharmaceutical preparation for sale by prescription, over-the-counter, or any other method for all uses in humans and/or animals, in which Biogen Idec or its Affiliates incorporates one or more Other Compound(s) as an active ingredient, and does not incorporate any Target Selective Compounds as an active ingredient. It is understood that Other Biogen Idec Products containing different active ingredient(s) (i.e. a different active ingredient or an additional active ingredient) or a different formulation shall be deemed different "Other Biogen Idec Products".

1.54. "Other Compound" shall mean a Collaboration Compound that is not Target Selective against the Collaboration Target or any Target designated pursuant to the OCA as a "Collaboration Target" as defined therein.

1.55. "PDK" shall mean the human Phosphoinositide-dependent kinase-1 protein.

1.56. "Phase I" shall mean human clinical trials, the principal purpose of which is the preliminary evaluation of safety in healthy individuals as more fully defined in 21 C.F.R. §312.21(a) or similar clinical study in a country other than the United States. An initial study in patients where the primary purpose is the preliminary evaluation of safety will be considered a Phase I study.

1.57. "Phase II" shall mean human clinical trials conducted on a limited number of patients for the primary purpose of evaluation of both clinical efficacy and safety, and/or to obtain a preliminary evaluation of the dosage regimen, as more fully defined in 21 C.F.R. §312.21(b).

1.58. "Phase III" shall mean human clinical trials, the principal purpose of which is to establish substantial evidence of both safety and efficacy in patients with the disease or condition being studied, as more fully defined in 21 C.F.R. §312.21(c) or similar clinical study in a country other than the United States. Phase III shall also include any other human clinical trial intended to serve as a pivotal trial to support the submission of an application for regulatory approval.

1.59. "Product" shall mean a pharmaceutical preparation for sale by prescription, over-the-counter, or any other method for all uses in humans and/or animals, which incorporates one or more Target Selective Compound, or any salt, ester, stereoisomer or polymorph thereof, as an active drug substance. It is understood that Products containing different active ingredient(s) (i.e. a different active ingredient or an additional active ingredient) or a different formulation shall be deemed different "Products". For the sake of clarity, "Product" shall not include any BIIB062 Product.

1.60. "Prosecution", "Prosecuting", and "Prosecute" shall mean the preparation, filing, prosecution and maintenance of any patent applications and patents, including, without limitation, any and all divisionals, continuations in part, extensions, interferences, re-examinations, reissues, oppositions, post-grant proceedings and the like.

1.61. "Raf" shall mean the human Raf protein kinase together with the Raf protein family members { * }.

1.62. "Regulatory Approval" shall mean approval of the health regulatory agency in a country (FDA in the U.S. and comparable authority outside the U.S.) necessary for the marketing and sale of a product in the applicable country. As used herein, "Regulatory Approval" shall not include pricing or reimbursement approval.

1.63. "Sublicensee" shall mean a Third Party expressly licensed by a Party to make, use, import, offer for sale or sell Product, Sunesis Product, BIIB062 Product, BIIB062 Reverted Product or Other Biogen Idec Product, as applicable. The term "Sublicensee" shall not include distributors (i.e. a Third Party who purchases product from a Party for resale).

1.64. "Sunesis Collaboration Know-How" shall mean any Know-How: (i) made or developed solely by or under authority of personnel of Sunesis or any of its Controlled Affiliates in the course of performing activities directed to the Collaboration Target pursuant to the OCA under the OCA Research Program during the OCA Research Term; or (ii) made or developed solely by or under authority of personnel of Sunesis or any of its Controlled Affiliates after August 25, 2004, but prior to June 30, 2011 in the course of activities specifically related to the discovery, research, or development of Collaboration Derivatives. Notwithstanding the foregoing, Sunesis Collaboration Know-How shall in all cases exclude Sunesis Core Technology, Joint Collaboration Know-How and Excluded Compounds.

1.65. "Sunesis Collaboration Patents" shall mean all patents, patent applications and invention disclosures the subject of which is an invention that is: (i) conceived in the course of performing activities directed to the Collaboration Target pursuant to the OCA under the OCA Research Program during the OCA Research Term and is reduced to practice prior to the ARCA Effective Date solely by or under authority of personnel of Sunesis or any of its Controlled Affiliates; or (ii) conceived and reduced to practice solely by or under authority of personnel of Sunesis or any of its Controlled Affiliates after August 25, 2004, but prior to June 30, 2011 in the course of activities directed to the discovery, research, or development of Collaboration Derivatives. It is to be understood that Sunesis Collaboration Patents shall include any divisionals, continuations, continuations-in-part, reissues, reexaminations, extensions or other governmental actions which extend any of the patent applications or patents in (i) or (ii) above, and any substitutions, confirmations, registrations, revalidations or foreign counterparts of any of the foregoing. Notwithstanding the foregoing, Sunesis Collaboration Patents shall in all cases exclude Sunesis Core Technology and Joint Collaboration Patents.

1.66. "Sunesis Collaboration Technology" shall mean all Sunesis Collaboration Patents and Sunesis Collaboration Know-How.

1.67. "Sunesis Core Technology" shall mean all patents, patent applications, and invention disclosures (all as listed on Exhibit 1.67) and all information, materials and other subject matter, and improvements thereof, relating to (i) mutants or the use thereof in screening, (ii) the use of novel protein engineering techniques and their application in drug discovery, (iii) target-directed fragment discovery and maturation to produce drug leads, including monophores, extenders and fragments and monophore, extender and fragment libraries for such purposes, or (iv) covalent tethering and techniques related thereto (e.g. NMR, X-ray, mass spec. AUC, Biacore) and its use to discover fragments and test binding hypotheses of fragments and leads: (a) controlled by Sunesis and/or its Controlled Affiliates prior to June 30, 2008; or (b) made by Biogen Idec in the course of activities directed to the discovery, research, or development of Collaboration Compounds; provided, in the case of (b) that such item was made using or derived from Sunesis Core Technology. Sunesis Core Technology shall also include any divisionals, continuations, continuations-in-part, reissues, reexaminations, extensions or other governmental actions which extend any of the patent applications or patents in (a) or (b) above, and any substitutions, confirmations, registrations, revalidations or foreign counterparts of any of the foregoing.

1.68. "Sunesis Product" shall mean a pharmaceutical preparation for sale by prescription, over-the-counter or any other method for all uses in humans and/or animals, in which Sunesis or its Affiliates incorporates an Other Compound as an active ingredient.

1.69. "Synthesize," "Synthesis" or "Synthesized" shall mean, with respect to a chemical composition, the act of (i) first physical synthesis of such chemical composition, or (ii) if such composition had previously been first actually synthesized, first physically establishing, in a relevant assay, that such composition is Target Selective against a specific Target. For avoidance of doubt Synthesize shall not include chemical compositions synthesized in vivo.

1.70. "Synthesized Compound" shall mean any Active Compound that was actually Synthesized by either Party alone or by both Parties jointly in the course of performing the OCA

during the OCA Research Term, but specifically in the course of activities directed to the Collaboration Target in the performance of the Research Program (as defined therein) in accordance with the then-current OCA Research Plan. For avoidance of doubt, "Synthesized Compounds" shall not include Excluded Compounds.

1.71. "Target" shall mean, except as described in Section 1.3 and 1.14 above, a single human protein, but shall exclude Raf and PDK.

1.72. "Target Selective" shall mean, when used to describe a chemical compound with respect to a specified Target, that such compound exhibits { * } or (ii) { * }. Such Cell-based and enzyme assays, shall be as set forth on Exhibit 1.72, except in such event that Sunesis gives Biogen Idec notice within { * } ({ * }) days of the ARCA Effective Date that it rejects these assays whereupon the Parties shall confer and agree in writing upon alternate assays as soon as is practicable thereafter, which assays shall be attached as Exhibit 1.41 and shall be the enzyme and cell-based assays for purposes of this Section 1.72 (the "BTK Assays").

1.73. "Target Selective Compound" shall mean any Collaboration Compound that is Target Selective against the Collaboration Target.

1.74. "Third Party" shall mean any person or entity other than Sunesis and Biogen Idec, and their respective Affiliates.

1.75. "Valid Claim" shall mean { * }.

1.76. Additional Terms. In addition to the foregoing, the following terms shall have the meaning defined in the corresponding Section below:

inition	**Section Defined**	**Definition**	**Section Defined**
CA Effective Date	Recitals	Joint Steering Committee	5.1
reement Product	1.47	Joint Sub-Committee	5.2
B062 Exclusive License	6.4.1	Liabilities	13.1
B062 Reverted Product	3.5.2	Milestone Compound	7.4.1
gen Idec Competitor	3.2.4(c)	Milestone Target	7.4.1
K Assays	1.72	Notice Period	3.2.1
nge in Control	3.2.4(b)	OCA Effective Date	Recitals
Development Plan and Budget	3.2.2	Other Biogen Idec Technology	6.2.4
Funded Product	3.2.1	Other Sunesis Technology	6.4.4
Funding Percentage	3.2.3	Phase I Date	14.6
ntrolling Party	10.3.5	Phase II Drug Collaboration	2.7.1
perating Party	10.3.5	Phase II Notice	3.2.1
Promoted Product	4.2	post Phase I Development Costs	3.2.4(d)
Promotion Option	4.2	Product Team	3.3
ction Notice	3.2.1	Projected Start Date	3.2.1
ction Percentage	4.2.1	Reverted Product	3.5.1
emnitee	13.3	Royalty Products	7.5.1

inition	Section Defined	Definition	Section Defined
emnitor	13.3	Sales and Marketing Plan	5.5.2
ication	7.4.3(b)	Subject Infringement	10.3.1
ial Development Plan	3.2.1	Term	14.1
ial Territory	3.2	Terminated Compound	Ex. 3.5.1
ingement Action	10.3.5		
	5.5.1		
	5.4.1		

ARTICLE 2
TARGET DESIGNATION

2.1. [Reserved].

2.2. [Reserved].

2.3. [Reserved].

2.4. [Reserved].

2.5. [Reserved].

2.6. Designation of Development Candidates. Biogen Idec shall have complete discretion during the Term as to the designation of any Target Selective Compound within the Field as a Development Candidate by providing written notice to Sunesis of such designation. Notwithstanding the foregoing, it is understood and agreed that if Biogen Idec undertakes GLP toxicity studies or GMP manufacturing with respect to a particular Target Selective Compound, such Target Selective Compound shall be deemed designated by Biogen Idec as a Development Candidate for the purposes of Sections 3.3 and 7.3.

2.7. Phase II Drug Collaborations; Excluded Compound Programs.

2.7.1. Phase II Drug Collaborations. Subject to the licenses granted under Article 6, notwithstanding Section 6.6 and subject to the provisions of this Section 2.7: Sunesis shall not be prohibited from collaborating with a Third Party on the development and commercialization of chemical compounds in-licensed from or controlled by such Third Party against the Collaboration Target; provided that (x) Sunesis has not exercised its Co-Funding Option with respect to the Collaboration Target, and (y) that such compounds are in Phase II clinical trials or later stage of development or commercialization at the time of initiation of such collaboration (each, a "Phase II Drug Collaboration"). As of the Effective Date, except for those compounds listed on Exhibit 2.7.1, Sunesis is not a party to a Phase II Drug Collaboration. Sunesis shall notify Biogen Idec in writing upon entering into a Phase II Drug Collaboration. Nothing in this paragraph is intended as the grant of a license by either Party to the other Party.

2.7.2. Excluded Compound Programs. Subject to the licenses granted under Article 6, in addition to the foregoing, neither Party shall be prohibited from researching, developing or commercializing Excluded Compounds, with the proviso that Sunesis shall be

subject to the provisions of Section 6.6 below. Nothing in this paragraph is intended as the grant of a license by either Party to the other Party.

2.8. [Reserved].

ARTICLE 3
PRODUCT DEVELOPMENT

3.1. Development by Biogen Idec. Following the selection of each Development Candidate in accordance with Section 2.6 above, Biogen Idec shall be responsible for undertaking a development program aimed at ultimately seeking Regulatory Approval for any Products incorporating such Development Candidate.

3.2. Co-Funding Option. Sunesis shall have the right, on a Product-by-Product basis, to elect to fund a portion of post Phase I Development Costs of Products specifically directed to the Collaboration Target in all countries worldwide other than Japan (the "Initial Territory"). In the event that Sunesis elects to exercise its Co-Funding Option with respect to the Initial Territory for a particular Product pursuant to the preceding sentence, then Sunesis shall have the right to elect to fund a portion of post Phase I Development Costs of such Product in Japan, all in accordance with this Section 3.2.

3.2.1. Election. For so long as Sunesis continues to have a Co-Funding Option, Biogen Idec shall notify Sunesis { * } for each Product in each of the applicable territories described above in Section 3.2 where the primary endpoint of such trial involves a preliminary determination of efficacy. Such notice shall include the date { * }. Sunesis may elect, by so notifying Biogen Idec in writing { * } (the "Notice Period"), to participate in the further development of such Product in the applicable territory, as described in this Section 3.2 (such notice, the "Election Notice"). { * } until the end of the Notice Period, Biogen Idec shall cooperate fully with Sunesis, and shall promptly provide Sunesis with access to such material information, to the extent such information is not included in the Initial Development Plan or otherwise has not been communicated previously to Sunesis, as Sunesis may reasonably request to enable Sunesis to make an informed decision whether to exercise its Co-Funding Option under this Section 3.2 with respect to such Product. Such cooperation shall include, without limitation, consulting with Sunesis in good faith regarding the Initial Development Plan, and the financial, scientific and regulatory assumptions reflected therein. In the event Sunesis exercises its Co-Funding Option with respect to a particular Product (such Product, a "Co-Funded Product"), the provisions of Sections 3.2.2 through 3.2.4 below shall apply with respect to such Co-Funded Product in the Co-Funded Territory. The "Co-Funded Territory" shall consist of the Initial Territory for each Co-Funded Product, and in the event Sunesis elects to exercise its Co-Funding Option for Japan with respect to a particular Co-Funded Product, the Co-Funded Territory shall mean all territories worldwide for such Co-Funded Product.

3.2.2. JDC. For each Co-Funded Product, the Parties shall establish and maintain a JDC in accordance with Section 5.4 below, which shall be responsible for establishing the plan and budget for the development of each Development Candidate (each, a "Co-Development Plan and Budget") and overseeing the implementation of such plan. Such Co-Development Plan and Budget shall be comprehensive and shall fully describe at least the

proposed activities related to ongoing preclinical studies, formulation, process development, clinical studies and regulatory plans, and other activities and timelines directed to obtaining the initial and subsequent Regulatory Approvals in each applicable country. Unless otherwise specified in a Co-Development Plan and Budget amounts reflected for a full year shall be deemed budgeted in equal amounts for each calendar quarter of such year.

3.2.3. Co-Funding Obligation. In the event Sunesis exercises its Co-Funding Option with respect to a Product, Sunesis shall be obligated to reimburse Biogen Idec for a percentage (the "Co-Funding Percentage") of post Phase I Development Costs for such Product, subject to the provisions of this Section 3.2. It is understood and agreed that the Co-Funding Percentage shall initially be { * } percent ({ * }%) for each Co-Funded Product. In addition the following shall apply:

(a) The Co-Development Plan and Budget will be updated on a quarterly basis. Promptly following the final Biogen Idec Board of Directors meeting each calendar year during the development activities for a particular Co-Funded Product or such other date as is mutually agreed by the Parties, the JDC shall update and amend the Co-Development Plan and Budget for such Co-Funded Product for the subsequent year. Biogen Idec shall provide Sunesis with reasonable opportunity to provide input into each Co-Development Plan and Budget, and , subject to Article 5, Biogen Idec shall reasonably consider Sunesis' comments in establishing and updating each Co-Development Plan and Budget.

(b) Within thirty (30) days after the end of each calendar quarter, Biogen Idec shall provide to Sunesis a statement reflecting the total post Phase I Development Costs incurred by Biogen Idec in accordance with the then-current Co-Development Plan and Budget during such calendar quarter with respect to each Co-Funded Product. Within thirty (30) days after Sunesis' receipt of such statement, Sunesis shall reimburse Biogen Idec for the applicable Co-Funding Percentage of the post Phase I Development Costs incurred by Biogen Idec during such calendar quarter for such Co-Funded Product.

(c) Upon ninety (90) days written notice to Biogen Idec, Sunesis may terminate its Co-Funding Option for a particular Co-Funded Product. In such event, Sunesis' funding obligation under this Section 3.2.3 above shall apply only with respect to post Phase I Development Costs for activities conducted with respect to such Co-Funded Product prior to the effective date of such termination. Should Sunesis terminate its Co-Funding Option under this Section 3.2 with respect to a particular Co-Funded Product, (i) any royalties payable to Sunesis on such Co-Funded Product shall be paid in accordance with Section 7.5.1, subject to Section 7.5.2(b), and (ii) Sunesis shall relinquish its right to participate in the JDC pursuant to Section 5.4 and any right to its Co Promotion Option under Section 4.2 for such Co-Funded Product.

(d) Upon written notice to Biogen Idec at least ninety (90) days prior to the end of a budget year, Sunesis may elect to { * }, by so notifying Biogen Idec in writing, referencing this Section 3.2.3(d) and specifying { * }. In such event, Sunesis shall receive a { * } in accordance with the schedule set forth in Section 7.5.2(c) below { * }. Upon such election, Sunesis' previous Co-Funding Percentage under this Section 3.2.3 shall apply only with respect to post Phase I Development Costs for activities conducted with respect to such Co-Funded Product { * } with respect to such Co-Funded Product. Sunesis may { * } provided that (i)

Sunesis shall not be permitted { * } its Co-Funding Percentage for such Co-Funded Product, and (ii) Sunesis may { * }. As used herein, "budget year" shall mean a calendar year, provided that Biogen Idec shall have the right to change the budget year to coincide with Biogen Idec's annual budget cycle, provided that Biogen Idec provide Sunesis with at least one hundred twenty (120) days' notice of such change.

(e) Notwithstanding the foregoing, in the event that Sunesis experiences a Change in Control, then Sunesis' Co-Promotion rights under Section 4.2 and the right to participate in the JDC under Section 5.4 and any Product Teams under Section 3.3 shall terminate. In addition:

(i) With respect to any Co-Funded Product for which Sunesis has exercised its Co-Funding Option prior to such Change of Control, Sunesis' rights and obligations under this Section 3.2.3 shall continue, provided that Biogen Idec shall no longer be obligated to provide the detailed plans required of a Co-Development Plan and Budget to Sunesis (or its successor entity), but shall provide Sunesis (or its successor entity) with annual budgets of post Phase I Development Costs for such Co-Funded Product.

(ii) Sunesis' Co-Funding Option with respect to future Products shall continue as well (i.e. with respect to Products that are not Co-Funded Products as of the date of such Change of Control), provided that Biogen Idec shall no longer be obligated to provide for each Product the detailed plans and clinical data required of an Initial Development Plan and Phase II Notice. Biogen Idec shall, however, provide Sunesis (or its successor entity) with annual budgets of post Phase I Development Costs for such Co-Funded Product in accordance with the timetable for a Phase II Notice set forth in Section 3.2.1, and shall provide reasonable cooperation to Sunesis (or its successor entity) in evaluating such Product and the post Phase I Development Costs related thereto, including consulting with Sunesis (or its successor entity) in good faith regarding such annual budgets and the financial, scientific and regulatory assumptions reflected therein.

3.2.4. Certain Terms. As used in this Section 3.2, the following terms shall have the meanings set forth below:

(a) [Reserved].

(b) "Change in Control" shall mean { * }.

(c) "Biogen Idec Competitor" shall mean { * }.

(d) "post Phase I Development Costs" shall mean, with respect to a particular Co-Funded Product, the Development Costs incurred by the Parties or their Affiliates after completion of Phase I trials for such Co-Funded Product in the Co-Funded Territory for such Co-Funded Product. For the avoidance of doubt, (i) post Phase I Development Costs shall not include any Development Costs incurred by the Parties or their Affiliates for any subsequent Phase I trials, and (ii) Development Costs relating to activities directed at obtaining Regulatory Approval in Japan for a Co-Funded Product shall not be considered post Phase I Development Costs to the extent such Development Costs are incurred (A) prior to completion of the Phase I trials for such Co-Funded Product in Japan, or (B) if no Phase I trials are necessary or performed

for such Co-Funded Product in Japan, then prior to initiation of any clinical trial other than a Phase I trial.

3.3. Product Team. Upon Sunesis' exercise of the Co-Funding Option, the Parties shall form a product team with respect to each Co-Funded Product that shall report to the JDC, comprised of Biogen Idec and Sunesis personnel that will implement the further development and regulatory affairs with respect to that Co-Funded Product (each a "Product Team") in accordance with the Co-Development Plan and Budget. It is understood that both Biogen Idec and Sunesis shall have the opportunity for meaningful participation in the activities of the Product Team commensurate with their respective levels of funding participation. Sunesis shall be notified at least two weeks in advance of the date of each Product Team meeting and shall have the opportunity to have its representatives attend such meeting. Biogen Idec shall provide such Sunesis representatives with all information distributed to Biogen Idec members of the Product Team, and such other material information as Sunesis may reasonably request from time to time.

3.4. Regulatory Matters. Subject to Section 3.5.1, Biogen Idec shall file and be the owner of all regulatory filings for Target Selective Compounds and/or Products (including Co-Funded Products) developed pursuant to this Agreement, including all NDAs and Regulatory Approvals, unless otherwise agreed by the Parties. Subject to Section 3.5.2, Sunesis shall file and be the owner of all regulatory filings for BIIB062 and BIIB062 Products developed pursuant to this Agreement, including all NDAs and Regulatory Approvals, unless otherwise agreed by the Parties.

3.5. Product Reversion.

3.5.1. In the event that Biogen Idec fails to use Commercially Reasonable and Diligent Efforts to develop and commercialize a Co-Funded Product pursuant to Article 9 or in the event that Sunesis terminates this Agreement pursuant to Section 14.2 for Biogen Idec's breach, pursuant to Section 14.3 for Biogen Idec's bankruptcy or in the event that Biogen Idec terminates this Agreement pursuant to Section 14.4 for convenience, Sunesis shall have the right to assume the development and commercialization of such Co-Funded Product, subject to the terms and conditions of this Section 3.5.1, upon notice to Biogen Idec. Upon effective date of such notice from Sunesis, such Co-Funded Product shall be designated a "Reverted Product", the terms set forth in Section 1 of Exhibit 3.5.1 attached hereto shall thereafter apply, and Sunesis shall pay royalties to Biogen Idec as provided under 7.6.2 on Net Sales of such Reverted Product by Sunesis.

3.5.2. In the event that (i) Sunesis fails to use Commercially Reasonable and Diligent Efforts to develop and commercialize a BIIB062 Product pursuant to the terms of this Agreement, and Biogen Idec provides Sunesis with written notice of such failure, (ii) Biogen Idec terminates this Agreement for Sunesis' breach or bankruptcy pursuant to Section 14.2 or 14.3, respectively, (iii) Biogen Idec terminates the BIIB062 Terms for failure to initiate a Phase I clinical trial pursuant to Section 14.6 or (iv) Sunesis terminates the BIIB062 Terms for convenience pursuant to Section 14.5, Biogen Idec shall, in each case, assume responsibility for the development and commercialization of BIIB062 and BIIB062 Product, subject to the terms and conditions of this Agreement. Upon the effective date of such notice from Biogen Idec or

the effective date of any such termination, as the case may be, such BIIB062 Product shall be designated a "BIIB062 Reverted Product", the BIIB062 Exclusive License shall terminate, and the terms set forth in Exhibit 3.5.2 attached hereto shall thereafter apply.

3.6. BIIB062 Inventory. Biogen Idec shall deliver to Sunesis all BIIB062 inventory in its possession as of the Effective Date, including intermediates and raw materials, pursuant to written instructions prepared by Sunesis as to location and method of delivery and received by Biogen Idec not more than forty-five (45) days following the Effective Date. For so long as no BIIB062 Product is designated a BIIB062 Reverted Product pursuant to Section 3.5.2 above, Sunesis shall, at no cost to Biogen Idec, provide to Biogen Idec such amounts of BIIB062 as Biogen Idec shall reasonably request to conduct its internal research and development activities under Section 6.4.2. The Parties further agree that, with respect to all transfers of BIIB062 inventory under this Section 3.6, the receiving Party shall be responsible for all shipping and delivery related costs and title to such inventory shall pass to the receiving Party upon placement by the other Party of such inventory with the carrier selected by the receiving Party. The Parties further agree that all such inventory shall be provided on an as-is, where-is basis, without any express or implied warranty of any kind.

ARTICLE 4
PRODUCT COMMERCIALIZATION

4.1. Commercialization Rights. Subject to the provisions of Section 4.2, Biogen Idec shall be responsible for the establishment and implementation of the strategy, plans and budgets for marketing and promotion of the Products.

4.2. Co-Promotion Option. Sunesis will have an option (the "Co-Promotion Option") to co-promote each Co-Funded Product in the Co-Funding Territory, according to the terms and conditions set forth in this Section 4.2. This Co-Promotion Option may be exercised at Sunesis' discretion on a Product-by-Product and country-by-country basis for any Co-Funded Product, by so notifying Biogen Idec in writing within { * } for such Co-Funded Product in such country (each such Co-Funded Product for which Sunesis exercises the Co-Promotion Option being referred to as a "Co-Promoted Product"). { * } Biogen Idec shall provide to Sunesis with a good faith estimate of the number of field force personnel to be deployed for such Co-Funded Product in the applicable territory for { * } together with a then-current Sales and Marketing Plan for such Co-Funded Product. The estimate of the number of field force personnel to be deployed shall be prepared by the JCC, and shall take into consideration the then-current marketing and promotion practices in the relevant markets and the number and nature of other products, if any, including the detail position, if applicable, that such field force personnel will be selling. In situations where field force personnel will be selling multiple products, the JCC shall make a good faith allocation of the field force personnel's time to be spent on each product. As used in this Section 4.2, "co-promote" or "co-promotion" shall mean to promote jointly or joint promotion of a Product through Biogen Idec's and Sunesis' respective sales forces under the same brand name, with Biogen Idec booking all sales of such Co-Promoted Product.

4.2.1. Scope and Coordination of Co-Promotion. Upon exercise of its Co-Promotion Option with respect to a Co-Promoted Product, Sunesis shall have the right to field up to { * } (the "Election Percentage") of the field force, as such field force is determined in good

faith by the JCC, with respect to the Co-Promoted Product in the applicable territory. The JCC shall be responsible for coordinating the co-promotion activities under this Section 4.2, and shall develop the strategies and programs to optimally carry out marketing and promotional activities, including but not limited to, the assignment of sales force responsibilities in accordance with the Sales and Marketing Plan. It is understood that Sunesis may use one or more contract service organizations for its activities under this Section 4.2, provided that with respect to each Co-Promoted Product, Sunesis { * } for such Co-Promoted Product. Sunesis field sales force representatives will be employed by Sunesis and Sunesis shall be responsible for all the payment of all such representatives' salary, out-of pocket expenses (other than for promotional materials), bonus (Sunesis shall adopt substantially similar bonus plans/systems as Biogen Idec to reward sales) and benefits, pension, insurance, social security and any other related obligations. Sunesis shall within thirty (30) days of the end of each calendar quarter send a written report to Biogen Idec setting out for each applicable territory and each Co-Promoted Product, the number of field sales force representatives performing co-promotion activities hereunder, and the number and nature of other products, if any, that such field force personnel promoted during such calendar quarter. In the event that { * } that are allocated to Sunesis in the applicable Sales and Marketing Plan, Biogen Idec may terminate Sunesis' right to co-promote such Co-Promoted Product in such country upon written notice to Sunesis.

4.2.2. Co-Promotion Obligations. Sunesis shall employ a professional and trained sales force to co-promote the Co-Promoted Product, and such sales force shall meet standards of competence and professionalism as are common in the pharmaceutical industry. In all events, Sunesis' co-promotion shall be conducted as directed by the JCC and in accordance with the then current Sales and Marketing Plan and in accordance with all applicable laws. Biogen Idec shall provide to Sunesis sales personnel at Biogen Idec's expense any Co-Promoted Product-specific training and promotional materials (including samples), and shall permit Sunesis sales personnel to attend and participate in any Co-Promoted Product-specific seminars and sales training programs at no charge to Sunesis, in each case as reasonably necessary to effectively promote the particular Co-Promoted Product consistent with the Sales and Marketing Plan.

4.2.3. Reimbursement. For the performance of the obligations of Sunesis under this Section 4.2, Biogen Idec shall reimburse Sunesis as described herein. { * } In the event that Sunesis sales representatives promote any other products other than such Co-Promoted Product, then Biogen Idec shall only reimburse for the pro rata share of the cost of such Sunesis sales representatives.

4.2.4. Right to Terminate Co-Promotion. Sunesis shall have the right, on a territory by territory basis, to terminate its co-promotion of any Co-Promoted Product, and its obligations under this Section 4.2 with respect to such Co-Promoted Product, on a Co-Promoted Product-by-Co-Promoted Product basis, upon one hundred eighty (180) days prior notice to Biogen Idec. Upon termination of co-promotion under this Section 4.2.4, Sunesis shall have no right to reimbursement by Biogen Idec under Section 4.2.3 for services provided after the effective date of such termination.

4.3. Amendment of Sales and Marketing Plan. Promptly upon exercise of Sunesis' Co-Promotion Option hereunder, the JCC shall meet to revise the Sales and Marketing Plan to

reflect the sales activities to be undertaken by Sunesis, including without limitation the formulation of a mechanism to establish and adjust cost allocation, and the definition of a relevant field sales force promotional activity metric for purposes of allocating the activities of sales representatives.

4.4. Sunesis Logo. The name and logo of Sunesis shall appear, with reasonable size and prominence, on all packaging, package inserts, (and to the extent permitted) labeling, marketing and sales materials and advertisements for all Co-Promoted Products in the applicable territory.

4.5. Sunesis Insurance. In the event that Sunesis exercises its Co-Promotion Option, Sunesis shall procure and continue to maintain, at its own cost, the following insurance coverage: Commercial General Liability, including coverage for products and completed operations (maintained for a period of at least five (5) years after expiration or termination of this Agreement) and contractual liability (including coverage for advertising and personal injury). The JCC shall set commercially reasonable and appropriate minimum terms and conditions for such insurance coverage, consistent with then-current pharmaceutical industry practice for commercialization efforts of similar scope to the co-promotion activities undertaken hereunder. Sunesis shall provide Biogen Idec with a certificate of insurance reflecting such coverage.

4.6. Commercialization of BIIB062 Product. Subject to the terms of this Agreement, Sunesis shall be solely responsible for the commercialization of BIIB062 Products.

ARTICLE 5
MANAGEMENT

5.1. Joint Steering Committee. The Parties have established a joint steering committee ("Joint Steering Committee") to provide oversight and management of the activities undertaken under this Agreement that do not relate to BIIB062 (and BIIB062 shall not be subject to the Joint Steering Committee in any event). The Joint Steering Committee shall be composed of two (2) representatives of each Party who shall be appointed (and may be replaced at any time) by such Party on prior written notice to the other Party in accordance with this Agreement. At least one (1) representative of a Party on the Joint Steering Committee shall be a vice-president or more senior officer of such Party, and the representatives shall have relevant experience and expertise in research, development and commercialization of biopharmaceuticals.

5.1.1. Responsibilities. The Joint Steering Committee shall be responsible for (i) reviewing the efforts of the JDC in the conduct of ongoing development activities and regulatory affairs with respect to Co-Funded Products under Article 3, and resolving disputes as to matters to be decided by the JDC under this Agreement; (ii) reviewing the efforts of the JCC in the conduct of promotional activities of the Parties with respect to Co-Promoted Products under Article 4, and resolving disputes as to matters to be decided by the JCC under this Agreement and (iii) taking such other actions as are specifically allocated to the Joint Steering Committee under this Agreement.

5.1.2. Meetings. The Joint Steering Committee shall meet quarterly, or at such frequency as agreed by the respective committee members. Meetings of the Joint Steering

Committee shall be at such locations as the Parties agree, and will otherwise communicate regularly by telephone, electronic mail, facsimile and/or video conference. With the consent of the Parties, other representatives of Sunesis or Biogen Idec may attend the Joint Steering Committee meetings as nonvoting observers.

5.1.3. Decisions. Any approval, determination or other action of the Joint Steering Committee shall require agreement of the members of the Joint Steering Committee, with each Party having one (1) vote. Action that may be taken at a meeting of the Joint Steering Committee also may be taken without a meeting if a written consent setting forth the action so taken is signed by all members of the Joint Steering Committee.

5.1.4. Disputes. In the event the Joint Steering Committee is unable to reach consensus on a particular matter within its jurisdiction or that of the JDC or JCC (other than as explicitly set forth in Section 15.2 below), the matter shall be referred to executives of the Parties in accordance with Section 15.1, and if such referral does not resolve such matter, then Biogen Idec shall have the right to cast a deciding vote on the JSC. Notwithstanding the foregoing, Biogen Idec shall not have the right to exercise such deciding vote in a manner that is not consistent with the other terms and conditions of this Agreement or that imposes a material obligation on Sunesis. In the evaluation of a Diligence Summary pursuant to Section 1.23, any decision of the JSC shall be binding on the Parties, but in the event the JSC is unable achieve agreement with respect to such evaluation, then such dispute shall be resolved as set forth in Section 1.23.

5.2. Joint Sub-Committees. The Parties shall form the JDC and JCC (each, a "Joint Sub-Committee") in accordance with the terms set forth in Sections 5.2, 5.4 and 5.5.

5.2.1. Generally. Each Joint Sub-Committee shall meet at such locations as the Parties agree, and will otherwise communicate regularly by telephone, electronic mail, facsimile and/or video conference. Each Party shall be responsible for all of its own expenses associated with attendance of such meetings, and either Party may replace its respective representatives to each Joint Sub-Committee at any time, with prior written notice to the other Party. From time to time, each Joint Sub-Committee may establish further subcommittees to oversee particular projects or activities, and such further subcommittees will be constituted as such Joint Sub-Committee approves.

5.2.2. Decision Making. Decisions of each Joint Sub-Committee shall be made by unanimous approval of the team leaders from each Party present in person or by other means (e.g., teleconference) at any meeting; provided that at least one member from each Party must be so present and voting. In the event that unanimity is not achieved within a Joint Sub-Committee on a decision required to be made by such Joint Sub-Committee, the matter will be referred to the Joint Steering Committee, which in each case shall promptly meet and endeavor in good faith to resolve such matter in a timely manner. In the event the Joint Steering Committee is unable to reach consensus on a particular matter, such matter shall be resolved in accordance with Section 5.1.4 above.

5.3. [Reserved].

5.4. Joint Development Committee.

5.4.1. Formation. Promptly following notice from Sunesis that it is exercising its Co-Funding Option, the Parties shall establish a Joint Development Committee ("JDC") with respect to the development of such Co-Funded Product(s). The JDC will be composed of up to three (3) representatives of Biogen Idec (at Biogen Idec's discretion) and at least one (1) representative of Sunesis who shall be appointed (and may be replaced at any time) by the respective Party on written notice to the other Party in accordance with this Agreement. In the event that Sunesis undergoes a Change of Control (as that term is defined in Section 3.2.4(b) above), the JDC shall be dissolved in accordance with Section 3.2.3(e).

5.4.2. Responsibilities. The responsibilities of the JDC shall consist of (i) overseeing the ongoing development of Co-Funded Product(s), (ii) establishing Co-Development Plans and Budgets for Co-Funded Products, (iii) monitoring and approving development activities under such Co-Development Plans and Budgets, (iv) reviewing and approving regulatory correspondence, final study reports and submissions to Regulatory Authorities relating to Co-Funded Products, and (v) making such decisions as are expressly provided in Article 3.

5.4.3. Meetings and Information. The JDC shall meet at least quarterly. Biogen Idec shall notify Sunesis at least two weeks in advance of the date of each JDC meeting, and Sunesis shall have the opportunity to send the Sunesis representative to each such meeting. Biogen Idec shall provide such Sunesis representative with schedules of all such meetings, as well as any other information distributed to Biogen Idec members of the JDC.

5.5. Joint Commercialization Committee.

5.5.1. Formation. Upon request by either Party following the initiation of the first Phase III clinical study for a Co-Funded Product, the Parties shall establish a Joint Commercialization Committee ("JCC") with respect to commercialization of such Co-Funded Product(s). The JCC will be composed of up to three (3) representatives of Biogen Idec (at Biogen Idec's discretion) and at least one (1) representative of Sunesis who shall be appointed (and may be replaced at any time) by the respective Party on written notice to the other Party in accordance with this Agreement.

5.5.2. Responsibilities. The JCC shall have responsibility to monitor the conduct and progress of the commercialization strategy, plans, and budgets, including establishment of a plan and budget for the marketing, promotion, sale and distribution of such Co-Funded Product (each a "Sales and Marketing Plan") and managing the promotional activities of the Parties with respect to Co-Promoted Products under Article 4 above. JCC shall update the Sales and Marketing Plan periodically, and no less often than annually, and shall include therein detailed plans and budgets for the marketing, promotion, sale and distribution of each Co-Funded Product.

5.5.3. Meetings and Information. The JCC shall meet at least quarterly. Biogen Idec shall notify Sunesis at least two weeks in advance of the date of each JCC meeting, and Sunesis shall have the opportunity to send at least one Sunesis representative to each such

meeting, who shall be designated as a member of the JCC. Biogen Idec shall provide such Sunesis representative with schedules of all such meetings, as well as any material information distributed to Biogen Idec members of the JCC.

ARTICLE 6
LICENSES

6.1. Research Licenses

6.1.1. Research Licenses to Biogen Idec.

(a) [Reserved].

(b) [Reserved].

(c) *Sunesis Collaboration Technology for Collaboration Compounds*. Subject to the terms and conditions of this Agreement, Sunesis grants to Biogen Idec a worldwide, non-exclusive license under the Sunesis Collaboration Technology and Sunesis' interest in the Joint Collaboration Technology, in each case with the right to grant sublicenses to the extent provided in Section 6.1.3, to make, discover, research and/or develop Collaboration Compounds, alone or as incorporated into Other Biogen Idec Products.

6.1.2. Research Licenses to Sunesis.

(a) [Reserved].

(b) *Joint Collaboration Technology for Collaboration Compounds*. Subject to the terms and conditions of this Agreement, Biogen Idec grants to Sunesis a worldwide, non-exclusive license under Biogen Idec's interest in the Joint Collaboration Technology, with the right to grant sublicenses to the extent provided in Section 6.1.3, to make, discover, research and/or develop Collaboration Compounds, alone or as incorporated into Sunesis Products.

6.1.3. Sublicensing of Research Licenses. Subject to the terms and conditions of this Agreement, either Party shall have the right to grant sublicenses (but not to authorize the grant of further sublicenses) of the rights granted under Sections 6.1.1 and 6.1.2 above except as otherwise set forth therein, provided that such sublicense is granted (i) to a contract research organization (CRO) where the sublicensing Party retains all commercialization rights to compounds produced by the CRO, or (ii) for the purposes of a bona fide research collaboration with a Third Party where the sublicensing Party remains substantially involved in the performance of the research with such Third Party collaborator.

6.2. Commercialization Licenses.

6.2.1. License under the Sunesis and Joint Collaboration Technology to Target Selective Compounds. Subject to the terms and conditions of this Agreement (including Section 6.1.2 above), Sunesis hereby grants to Biogen Idec a worldwide, exclusive license under the Sunesis Collaboration Technology and Sunesis' interest in the Joint Collaboration Technology,

in each case with the right to grant and authorize sublicenses as provided in Section 6.5, to research, develop, make, have made, use, import, offer for sale, sell and otherwise exploit Target Selective Compounds for any purpose, without regard to the mechanism of action of such Target Selective Compound, alone or as incorporated into a Product.

6.2.2. License under the Sunesis Core Technology to Target Selective Compounds. Subject to the terms and conditions of this Agreement, Sunesis hereby grants to Biogen Idec a worldwide, non-exclusive license under the Sunesis Core Technology to make, have made, use, import, offer for sale and sell Target Selective Compounds for any purpose, without regard to the mechanism of action of such Target Selective Compound, alone or as incorporated into a Product. It is understood that the foregoing license to Sunesis Core Technology shall not include the right to practice Sunesis Core Technology to discover novel compositions.

6.2.3. License under the Licensed Pre-Existing Technology to Licensed Pre-Existing Compounds. Subject to the terms and conditions of this Agreement, Sunesis hereby grants to Biogen Idec a worldwide, exclusive license under the Licensed Pre-Existing Technology, with the right to grant and authorize sublicenses as provided in Section 6.5, to research, develop, make, have made, use, import, offer for sale, sell and otherwise exploit Licensed Pre-Existing Compounds for any purpose, without regard to the mechanism of action of such Licensed Pre-Existing Compound, alone or as incorporated into a Product.

6.2.4. Reverted Products. Subject to the terms and conditions of this Agreement (including Section 6.1.1 above), with respect to each Terminated Compound Biogen Idec hereby grants to Sunesis a worldwide, exclusive license under Biogen Idec's interest in the Biogen Idec Collaboration Technology, Joint Collaboration Technology and other intellectual property rights in existence and owned or controlled by Biogen Idec as of the date such Collaboration Compound becomes a Terminated Compound ("Other Biogen Idec Technology"), with the right to grant and authorize sublicenses as provided in Section 6.5, to research, develop, make, have made, use, import, offer for sale, sell and otherwise exploit such Terminated Compound, alone or as incorporated into a Reverted Product. It is understood and acknowledged that the licenses granted with respect to Biogen Idec Collaboration Technology and Other Biogen Idec Technology in this Section 6.2.4 extend solely to that technology that is being used on that Terminated Compound (or a Reverted Product incorporating such Terminated Compound) as of the date of such reversion to Sunesis, and solely to the extent necessary for Sunesis to continue development and commercialization of such Terminated Compound (or a Reverted Product incorporating such Terminated Compound) in the form in which such Terminated Compound or Reverted Product exist as of the date of such reversion to Sunesis.

6.3. Other Compounds.

6.3.1. License to Biogen Idec for Other Biogen Idec Products.

(a) Subject to the terms and conditions of this Agreement, Sunesis hereby grants to Biogen Idec a worldwide, non-exclusive license under the Sunesis Collaboration

Technology and Sunesis' interest in the Joint Collaboration Technology, in each case with the right to grant and authorize sublicenses as provided in Section 6.5, to research, develop, make, have made, use, import, offer for sale, sell and otherwise exploit Other Compounds for any purpose, alone or as incorporated in Other Biogen Idec Products.

(b) [Reserved].

6.3.2. License to Sunesis for Sunesis Products.

(a) Subject to the terms and conditions of this Agreement, Biogen Idec hereby grants to Sunesis a worldwide, non-exclusive license under Biogen Idec's interest in the Joint Collaboration Technology, in each case with the right to grant and authorize sublicenses as provided in Section 6.5, to research, develop, make, have made, use, import, offer for sale, sell and otherwise exploit Other Compounds for any purpose, alone or as incorporated in Sunesis Products.

(b) [Reserved].

(c) For the avoidance of doubt, it is understood and acknowledged that the licenses set forth in this Section 6.3.2 shall not extend to Biogen Idec Derivatives.

6.4. BIIB062 License.

6.4.1. Exclusive License to Sunesis. Subject to the terms and conditions of this Agreement, Biogen Idec hereby grants to Sunesis a worldwide, exclusive license under the BIIB062 Technology, with the right to grant and authorize sublicenses as provided in Section 6.5, to develop, make, have made, use, import, offer for sale, sell and otherwise exploit BIIB062 and BIIB062 Products in the Oncology Field (the "BIIB062 Exclusive License").

6.4.2. Biogen Idec Retained Rights. Notwithstanding the BIIB062 Exclusive License, Biogen Idec shall retain all of its right, title and interest in the BIIB062 Technology solely for its internal research and development purposes in all fields; provided, however, that during the Term of this Agreement, Biogen Idec shall not transfer or otherwise sublicense such BIIB062 Technology to any Person other than a Biogen Idec Affiliate or an academic or non-profit institution that is a collaborator or partner of Biogen Idec pursuant to a written agreement, without the prior written consent of Sunesis.

6.4.3. Other Indications. Subject to Section 6.4.2, during the Term of this Agreement, neither Party, nor its respective Affiliates or Sublicensees, shall develop or commercialize BIIB062 for any and all indications outside of the Oncology Field.

6.4.4. BIIB062 Reverted Products License. Effective upon Biogen Idec's assumption of the development, manufacture and commercialization of BIIB062 and BIIB062 Product pursuant to Section 3.5.2 (the "BIIB062 Reversion Date") Sunesis hereby grants to Biogen Idec a worldwide, exclusive license under Sunesis' interest in the Sunesis Collaboration Technology, Joint Collaboration Technology and other intellectual property rights in existence and owned or controlled by Sunesis as of the BIIB062 Reversion Date (the "Other Sunesis Technology"), with the right to grant and authorize sublicenses as provided in Section 6.5, to

develop, make, have made, use, import, offer for sale, sell and otherwise exploit BIIB062 and BIIB062 Reverted Product. It is understood and acknowledged that the licenses granted with respect to Sunesis Collaboration Technology and Other Sunesis Technology in this Section 6.4.4 extend solely to that technology that is being used on BIIB062 (or a BIIB062 Reverted Product) as of the BIIB062 Reversion Date, and solely to the extent necessary for Biogen Idec to continue development, manufacture and commercialization of BIIB062 (or a BIIB062 Reverted Product) in the form in which BIIB062 or such BIIB062 Reverted Product existed on the BIIB062 Reversion Date.

6.5. Commercialization Sublicenses. Within a reasonable period of time following grant of any such sublicense, to the extent sublicensing is permitted under Section 6.2, 6.3 or 6.4 above, the sublicensing Party shall provide the other Party with a summary of such sublicense, including the identity of the Sublicensee (including any Affiliate) and the rights granted with respect thereto for each product and territory, sufficient to allow such other Party to verify any amounts then or subsequently due under Articles 7 and 8 below; provided that such summary may redact confidential information that the sublicensing Party is reasonably prohibited from disclosing under the sublicense agreement. Any sublicense granted under this Section 6.5 shall be consistent with all of the terms and conditions of this Agreement, and subordinate thereto, and the sublicensing Party shall remain responsible to the other Party for the compliance of each such Sublicensee with the obligations due under this Agreement.

6.6. Sunesis Covenant { * }. Notwithstanding the foregoing, the covenant set forth in this Section 6.6 shall not apply to (i) any pharmaceutical compound that is { * } with respect to which Biogen Idec is not using Commercially Reasonable and Diligent Efforts or (ii) BIIB062. Biogen Idec shall provide Sunesis with a Diligence Summary with respect to the { * }.

6.7. BTK Assays. Biogen Idec hereby grants, subject to its rights therein, to Sunesis, a fully-paid, royalty-free, worldwide, non-exclusive, perpetual, irrevocable and sublicenseable license to use, import and manufacture (and have made) the BTK Assays for purposes of this Agreement.

6.8. No Other Rights; No Implied Licenses. Only the licenses granted or retained pursuant to the express terms of this Agreement shall be of any legal force or effect. No other license rights shall be created by implication, estoppel or otherwise.

ARTICLE 7
PAYMENTS

7.1. [Reserved].

7.1.1. [Reserved].

7.1.2. [Reserved].

7.1.3. [Reserved].

7.1.4. [Reserved].

7.2. [Reserved].

7.2.1. [Reserved].

7.3. Research Milestones. Biogen Idec shall pay to Sunesis the following amounts within thirty (30) days following the first achievement of the following research milestones with respect to the Collaboration Target:

Research Milestones	**Payment Amount**
1. The earlier of (i) designation of the first Hit Compound (as defined under the OCA) for such Collaboration Target by the JRC (as defined under the OCA), or (ii) identification of the first Collaboration Compound to meet Hit Compound Criteria for such Collaboration Target.*	$500,000
2. Approval by Biogen Idec, in accordance with Section 2.6, of the First Development Candidate (as defined under the OCA) for such Collaboration Target.*	${ * }
3.Approval by Biogen Idec, in accordance with Section 2.6, of the second Development Candidate for such Collaboration Target (for purposes of Section 7.4.2, a { * }):	${ * }
* Sunesis acknowledges receipt of payment of this Research Milestone prior to the Effective Date.	

7.4. Development Milestones.

7.4.1. Development Milestone Payments. With respect to (i) the Collaboration Target, and (ii) each Kinase Target to which an Other Biogen Idec Product is directed (a "Milestone Target"), Biogen Idec shall pay to Sunesis on a Target-by-Target basis the following amounts within thirty (30) days following the first achievement by Biogen Idec, its Affiliates or Sublicensees, as the case may be, of each of the following milestones with respect to (x) the Collaboration Compound, or (y) a Product or Other Biogen Idec Product (excluding for purposes hereof any Non-Kinase Other Biogen Idec Product) incorporating the Collaboration Compound (a "Milestone Compound"):

	Payment Amount	
Development Milestones	**1st Indication**	**2nd Indication**

Development Milestones	Payment Amount 1st Indication	2nd Indication
1.Initiation of the first Phase I trial for such Milestone Compound in any country (for purposes of Section 7.4.2, a "Forgiven Milestone"):	$1,000,000	N/A
2.Initiation of the first Phase II trial for such Milestone Compound in any country (for purposes of Section 7.4.2, a "Forgiven Milestone"):	N/A	$750,000
3.Initiation of the first Phase III trial for such Milestone Compound in any country:	$3,000,000	$2,250,000
4.Filing of a NDA in the U.S. for such Milestone Compound:	$5,000,000	$3,750,000
5.Filing of an NDA with EMEA for such Milestone Compound:	$4,000,000	$3,000,000
6.Filing of a NDA in Japan for such Milestone Compound:	$2,000,000	$1,500,000
7.Regulatory Approval in the U.S. of such Milestone Compound:	$8,000,000	$6,000,000
8.Regulatory Approval by EMEA of such Milestone Compound:	$6,000,000	$4,500,000
9.Regulatory Approval in Japan of such Milestone Compound:	$4,000,000	$3,000,000

Subject to Section 7.4.2 below, such milestone payments shall be non-refundable and non-creditable against other amounts due Sunesis hereunder.

7.4.2. BIIB062-Related Milestones. During the Term of this Agreement, and unless and until this Section 7.4.2 is earlier terminated by either Party pursuant to Sections 14.5 or 14.6, the { * }, except as expressly set forth in this Section 7.4.2.

(a) Initiation of the First Phase II Clinical Trial for BIIB062. Upon the dosing of the first human subject in a Phase II clinical trial for a BIIB062 Product by Sunesis, its Affiliates or their Sublicensees (the "Initiation Date"), Sunesis shall pay to Biogen an amount equal to (i) Two Million Five Hundred Thousand 00/100 Dollars ($2,500,000) { * }.

(b) { * } for BIIB062. If at any time after the Initiation Date, Biogen Idec shall achieve one or more of the { * } that had not been achieved on or before the Initiation Date, then each such { * } shall be { * } on the date of such achievement and { * }.

7.4.3. Certain Additional Terms.

(a) Target-by-Target Milestones. It is understood that, subject to Section 7.4.3(b), the payments under this Section 7.4 shall be due only once with respect to each Milestone Target.

(b) Multiple Indications. With respect to a particular Milestone Target, { * }.

(c) Discontinued Compounds. If Biogen Idec ceases all clinical development of a particular Milestone Compound that is specifically directed at a particular Milestone Target, after having made one or more of the payments due under Section 7.4.1 above on the achievement of a particular milestone by such Milestone Compound, there shall be no payment due upon the accomplishment of that same milestone with respect to the next Milestone Compound that is specifically directed at the same Milestone Target to achieve such milestone.

(d) Accrued Milestones. If a research milestone for a Milestone Target under Section 7.3 above is achieved with respect to such Milestone Target, or a development milestone for a Milestone Compound under Section 7.4.1 above is achieved with respect to such Milestone Compound, in each case before a prior research milestone under Section 7.3 or a prior development milestone under Section 7.4.1 for such Milestone Target or Milestone Compound, respectively, then the earlier milestone payments shall then also be due with respect to such Milestone Target or Milestone Compound, as the case may be.

7.4.4. Reports; Payments. Within ten (10) business days of the occurrence of any event which would trigger a milestone payment according to Section 7.3 or 7.4, Biogen Idec shall inform Sunesis of such occurrence. The corresponding payment shall be due thirty (30) days after the occurrence of such event.

7.5. Royalties on annual Net Sales of Products.

7.5.1. Products Generally. Subject to Section 7.5.2 and 7.5.3, Biogen Idec shall pay to Sunesis a royalty on Net Sales by Biogen Idec, its Affiliates and their Sublicensees of Products (other than Net Sales of Co-Funded Products in the Co-Funded Territory) and Other Biogen Idec Products (excluding for purposes hereof Net Sales of any Non-Kinase Other Biogen Idec Product), ("Royalty Products"), on a Royalty Product-by-Royalty Product basis, equal to the percentage of such Net Sales set forth below:

Annual Net Sales	**Royalty on Net Sales**
Portion of Annual Net Sales of such Royalty Product up to ${ * }:	{ * }%
Portion of Annual Net Sales of such Royalty Product between ${ * } and ${ * }:	{ * }%
Portion of Annual Net Sales of such Royalty Product between ${ * } and ${ * }:	{ * }%
Portion of Annual Net Sales of such Royalty Product over ${ * }:	{ * }%

For purposes of the foregoing and Section 7.5.2 below, "annual Net Sales" shall mean, for a particular Product, the worldwide Net Sales of such Product for the particular calendar year. In the event that in a calendar quarter portions of the worldwide Net Sales of a particular Product are subject to royalty obligations under both Sections 7.5.1 and 7.5.2, the applicable royalty rate under Section 7.5.2 shall be applied to worldwide Net Sales based on the proportion of worldwide Net Sales generated in the Co-Funded Territory.

7.5.2. Co-Funded Products.

(a) Subject to Section 7.5.2(b) and 7.5.2(c) and 7.5.3, Biogen Idec shall pay to Sunesis a royalty on annual Net Sales by Biogen Idec, its Affiliates and their Sublicensees of Co-Funded Products in the Co-Funded Territory, on a Co-Funded Product-by-Co-Funded Product basis, equal to the percentage of such Net Sales set forth below:

Annual Net Sales	**Royalty on Net Sales**
Portion of Annual Net Sales of such Co-Funded Product up to ${ * }:	{ * }%
Portion of Annual Net Sales of such Co-Funded Product between ${ * } and ${ * }:	{ * }%
Portion of Annual Net Sales of such Co-Funded Product between ${ * } and ${ * }:	{ * }%
Portion of Annual Net Sales of such Co-Funded Product over ${ * }:	{ * }%

(b) { * }

{ * }

7.5.3. Third Party Patents.

(a) If: (i) a Valid Claim of a Third Party should be in force in any country during the Term of this Agreement covering the practice of the Sunesis Core Technology, Licensed Pre-Existing Technology, Sunesis Collaboration Technology or Joint Collaboration Technology as licensed to Biogen Idec under Section 6.2.1 or Section 6.3.1 with respect to the manufacture, use or sale of any Collaboration Compound, (ii) it should prove in Biogen Idec's reasonable judgment, after consultation with Sunesis, impractical or impossible for Biogen Idec to commercialize such Collaboration Compound without obtaining a royalty bearing license from such Third Party under such Valid Claim in said country (with such agreement not to be unreasonably withheld or delayed), and (iii) the royalty paid to such Third Party is directed to the practice of rights granted to Biogen Idec under Section 6.2.1 or Section 6.3.1 with respect to such Collaboration Compound, then Biogen Idec shall be entitled to a credit against the royalty payments due under Section 7.5 with respect to the same Collaboration Compound in such country of an amount equal to { * } of the royalty paid to such Third Party

for such Collaboration Compound in such country, arising from the practice of such Sunesis Core Technology, Licensed Pre-Existing Technology, Sunesis Collaboration Technology or Joint Collaboration Technology with respect to the manufacture, use or sale of the Collaboration Compound in said country, with such credit not to exceed { * } of the royalty otherwise due under this Agreement for such Collaboration Compound in such country.

(b) If: (i) a Valid Claim of a Third Party should be in force in any country during the Term of this Agreement covering the practice of (A) the Joint Collaboration Technology as licensed to Sunesis under Section 6.3.2, or (B) the Biogen Idec Collaboration Technology, Joint Collaboration Technology or other intellectual property rights in existence and owned or controlled by Biogen Idec licensed to Sunesis under Section 6.2.4, in each case with respect to the manufacture, use or sale of any Collaboration Compound, (ii) it should prove in Sunesis' reasonable judgment, after consultation with Biogen Idec, impractical or impossible for Sunesis to commercialize such Collaboration Compound without obtaining a royalty bearing license from such Third Party under such Valid Claim in said country (with such agreement not to be unreasonably withheld or delayed), and (iii) the royalty paid to such Third Party is directed to the practice of rights granted to Sunesis under Section 6.2.4 or Section 6.3.2 with respect to such Collaboration Compound, then Sunesis shall be entitled to a credit against the royalty payments due under Section 7.5, 7.6.1, or 7.6.2 with respect to the same Collaboration Compound in such country of an amount equal to { * } of the royalty paid to such Third Party for such Collaboration Compound in such country, arising from the practice of the intellectual property described in (A) or (B) above with respect to the manufacture, use or sale of the Collaboration Compound in said country, with such credit not to exceed { * } of the royalty otherwise due under this Agreement for such Collaboration Compound in such country.

(c) If: (i) a Valid Claim of a Third Party should be in force in any country during the term of this Agreement covering the practice of the BIIB062 Technology as licensed to Sunesis under Section 6.4.1, (ii) it should prove in Sunesis' reasonable judgment, after consultation with Biogen Idec, impractical or impossible for Sunesis to commercialize BIIB062 without obtaining a royalty bearing license from such Third Party under such Valid Claim in said country (with such agreement not to be unreasonably withheld or delayed), and (iii) the royalty paid to such Third Party is directed to the practice of rights granted to Sunesis under Section 6.4.1, then Sunesis shall be entitled to a credit against the royalty payments due under Section 7.6.3 in such country of an amount equal to { * } of the royalty paid to such Third Party for BIIB062 in such country, arising from the practice of the intellectual property described in clause (i) of this Section with respect to the manufacture, use or sale of BIIB062 in said country, with such credit not to exceed { * } of the royalty otherwise due under this Agreement for BIIB062 in such country.

7.6. Royalties on Net Sales of Sunesis Products, Reverted Products, Non-Kinase Other Biogen Idec Products and BIIB062 Products.

7.6.1. Other Biogen Idec Products. Biogen Idec shall pay to Sunesis a royalty equal to { * } of Net Sales by Biogen Idec, its Affiliates and their Sublicensees of Non-Kinase Other Biogen Idec Products, provided that this Section 7.6.1 shall not apply to Net Sales of Kinase Other Biogen Idec Products, which Net Sales shall be governed by Section 7.5.1 above.

7.6.2. Sunesis Products.

(a) Sunesis shall pay Biogen Idec at a royalty rate equal to the royalty rate provided under Section 7.5.1 with respect to Net Sales of Reverted Products by Sunesis, its Affiliates and their Sublicensees.

(b) Subject to Section 7.6.2(a) above, Sunesis shall pay to Biogen Idec a royalty equal to { * } of Net Sales of Sunesis Products by Sunesis, its Affiliates and their Sublicensees.

7.6.3. BIIB062 Products. Sunesis shall pay Biogen Idec at a royalty rate equal to the royalty rate provided under Section 7.5.1 with respect to Net Sales of BIIB062 Product by Sunesis, its Affiliates and their Sublicensees.

7.7. Royalty Term. The royalties due pursuant to Section 7.5 and Section 7.6 above shall be payable on a country-by-country and product-by-product basis commencing on the first commercial sale in a country and continuing until the later of: (i) the expiration of the last Valid Claim of the Sunesis Core Technology, the Licensed Pre-Existing Patents or the Joint Collaboration Patents (including the BIIB062 Patents) covering the sale or use of such Product, Sunesis Product, Reverted Product, Other Biogen Idec Product or BIIB062 Product, as applicable, in such country, or (ii) the tenth (10th) anniversary of the first commercial sale of such product in such country.

ARTICLE 8
PAYMENTS, BOOKS AND RECORDS

8.1. Royalty Reports and Payments. After the first sale of a product on which royalties are payable by a Party hereunder, such Party shall make quarterly written reports to the other Party within sixty (60) days after the end of each calendar quarter, stating in each such report, separately the number, description, and aggregate Net Sales, by territory, of each such Product, Other Biogen Idec Product, Reverted Product, Sunesis Product, BIIB062 Product or BIIB062 Reverted Product sold during the calendar quarter upon which a royalty is payable under Section 7.5 or Section 7.6 above, as applicable. Concurrently with the making of such reports, such Party shall pay to the other Party royalties due at the rates specified in Section 7.5 or Section 7.6 above, as applicable.

8.2. Payment Method. All payments due under this Agreement shall be made by bank wire transfer in immediately available funds to a bank account designated by the Party owed such payment. All payments hereunder shall be made in U.S. dollars. Any payments that are not paid on the date such payments are due under this Agreement shall bear interest to the extent permitted by applicable law at a rate equal to the 3-month LIBOR rate at the close of business on the date such payment is due, plus an additional { * } calculated on the number of days such payment is delinquent.

8.3. Place of Royalty Payment; Currency Conversion. The functional currency for accounting will be U.S. dollars. Except as the Parties otherwise mutually agree, for billing and reporting, Development Costs and Net Sales will be translated, if necessary, into U.S. dollars using the currency exchange rates quoted by Bloomberg Professional, a service of Bloomberg

L.P., or in the event Bloomberg Professional is not available, then the Eastern U.S. edition of The Wall Street Journal on the last business day of the applicable calendar quarter.

8.4. Records; Inspection. Each Party shall keep, and shall ensure that its Affiliates keep, complete, true and accurate books of account and records for the purpose of determining the amounts payable under this Agreement. Such books and records shall be kept at the principal place of business of such Party, for at least three (3) years following the end of the calendar quarter to which they pertain. Such records will be open for inspection by a public accounting firm to whom the audited Party has no reasonable objection and subject to such accounting firm entering into a satisfactory confidentiality agreement, solely for the purpose of determining the payments to the other Party hereunder. Such inspections may be made no more than twice each calendar year, at reasonable times and on reasonable notice. Inspections conducted under this Section 8.4 shall be at the expense of the auditing Party, unless a variation or error producing an increase exceeding { * } percent ({ * }%) of the amount stated for the period covered by the inspection is established in the course of any such inspection, whereupon all reasonable costs relating to the inspection for such period and any unpaid or overpaid amounts that are discovered will be promptly paid or refunded by the appropriate Party, in each case together with interest noted in Section 8.2 thereon from the date such payments were due (if underpaid) or paid (if overpaid) .

8.5. Withholding Taxes. Each Party shall pay any and all taxes levied on account of amounts payable to it under this Agreement. If laws or regulations require that taxes be withheld, the paying Party will (i) deduct those taxes from the remittable payment, (ii) timely pay the taxes to the proper authority, and (iii) send proof of payment to the other Party within sixty (60) days following that payment.

ARTICLE 9
DILIGENCE

9.1. Co-Funded Product Diligence; Reports. Biogen Idec shall use Commercially Reasonable and Diligent Efforts to develop and commercialize Co-Funded Products within the Field. Biogen Idec agrees to keep Sunesis fully informed regarding all Co-Funded Development Plans and the research, development and commercialization activities with respect to each Co-Funded Product, including by providing Sunesis with reports at least quarterly regarding ongoing activities being undertaken with respect to Co-Funded Products. This Section 9.1 shall not limit other provisions of this Agreement that address the provision of information regarding Products.

9.2. Reversion of a Co-Funded Product. If Biogen Idec fails to use Commercially Reasonable and Diligent Efforts to develop and commercialize a Co-Funded Product, and Biogen Idec shall continue to fail to use Commercially Reasonable and Diligent Efforts to develop and commercialize such Co-Funded Product for { * } days after written notice thereof from Sunesis, then such Co-Funded Product shall become a Reverted Product.

9.3. Diligence for a Reverted Product. Sunesis shall use Commercially Reasonable and Diligent Efforts to develop and commercialize each Reverted Product. Sunesis agrees to keep Biogen Idec fully informed regarding the development and commercialization activities

with respect to each Reverted Product, including by providing Biogen Idec with reports at least quarterly regarding ongoing activities being undertaken with respect to Reverted Products.

9.4. Termination of a Reverted Product. If Sunesis fails to use Commercially Reasonable and Diligent Efforts to develop and commercialize a Reverted Product, and Sunesis shall continue to fail to use Commercially Reasonable and Diligent Efforts to develop and commercialize such Reverted Product for { * } days after written notice thereof from Biogen Idec, then such Reverted Product shall cease to be a Reverted Product, and the licenses granted to Sunesis under Section 6.2.4 shall terminate with respect to Terminated Compounds incorporated in such Reverted Product. Thereafter, such Terminated Compounds shall be Target Selective Compounds and subject to Biogen Idec's licenses under Section 6.2 and obligations to pay royalties and milestones to Sunesis pursuant to Article 7. In addition, the terms set forth in Section 2 of Exhibit 3.5.1 shall apply to such Reverted Product.

9.5. BIIB062 Product Diligence; Reports. Sunesis shall use Commercially Reasonable and Diligent Efforts to develop and commercialize BIIB062 Products within the Oncology Field. Sunesis agrees to keep Biogen Idec fully informed regarding all development and commercialization activities with respect to each BIIB062 Product. Accordingly, Sunesis shall provide Biogen Idec with BIIB062 development reports at least { * } regarding the completed activities being undertaken with respect to the development of BIIB062 Products as well as the anticipated development activities to be undertaken in the subsequent { * }. On a country-by-country and BIIB062 Product-by-BIIB062 Product basis, upon the earlier of (i) one year prior to the anticipated first commercial sale of BIIB062 in a country (as reasonably determined by Sunesis) or (ii) Sunesis' submission of an NDA in such country for such BIIB062 Product, and on a semi-annual basis thereafter, Sunesis shall prepare and deliver to Biogen Idec a commercialization report, which report shall include a timeline for achieving first commercial sale, one-year financial projections for the commercial sale of the BIIB062 Product, and such other additional information as reasonably requested by Biogen Idec. This Section 9.5 shall not limit other provisions of this Agreement that address the provision of information regarding products other than BIIB062 Products.

ARTICLE 10
INTELLECTUAL PROPERTY

10.1. Ownership; Disclosure.

10.1.1. Collaboration Technology.

(a) [Reserved].

(b) Ownership of Compounds. All Synthesized Compounds and Collaboration Derivatives that are included in Joint Collaboration Know-How shall be jointly owned by the Parties, subject to the licenses granted under Article 6. However, ownership of any patents, patent applications and other intellectual property rights with respect to such compounds and other inventions made in the course of the OCA Research Program shall be as otherwise set forth in this Section 10.1.

(c) Sunesis Collaboration Technology. All right, title, and interest in and to the Sunesis Collaboration Technology shall be owned by Sunesis, subject to the licenses granted to Biogen Idec under Article 6.

(d) Biogen Idec Collaboration Technology. All right, title, and interest in and to the Biogen Idec Collaboration Technology shall be owned by Biogen Idec, subject to the licenses granted to Sunesis under Article 6.

(e) All Joint Collaboration Technology. All right, title and interest in and to (i) the Joint Collaboration Patents, and (ii) the Joint Collaboration Know-How shall be jointly owned by the Parties. Biogen Idec shall assign and hereby assigns to Sunesis a joint ownership interest in and to the Joint Collaboration Patents and the Joint Collaboration Know-How. Sunesis shall assign and hereby assigns to Biogen Idec a joint ownership interest in and to the Joint Collaboration Patents and the Joint Collaboration Know-How. Except as expressly provided in this Agreement, neither Party shall have any obligation to account to the other for profits, or to obtain any approval of the other Party to license, exploit or enforce the Joint Collaboration Technology, by reason of joint ownership thereof, and each Party hereby waives any right it may have under the laws of any jurisdiction to require any accounting or consent related thereto. It is understood and agreed that all Joint Collaboration Technology that is jointly owned pursuant to this Section 10.1.1(e) shall be subject to the licenses granted under Article 6.

(f) For the avoidance of doubt, to the extent a Joint Collaboration Patent discloses any use of an Excluded Compound, the composition of matter of which is separately owned by one Party, the other Party shall not have, merely as a result of its joint ownership of such Joint Collaboration Patent, any right, title or interest in or to such Excluded Compound.

10.1.2. Sunesis Core Technology. All right, title and interest in and to the Sunesis Core Technology, and in any improvements to Sunesis Core Technology (i) made using or derived from Sunesis Core Technology, and (ii) made by or under authority of either Party or its Affiliates during the Term of this Agreement, shall, as between the Parties, be owned solely by Sunesis. Biogen Idec hereby assigns to Sunesis all of its and its Affiliates rights in and to such inventions and improvements made using or derived from Sunesis Core Technology (including all patent and other intellectual property rights therein), subject to the licenses granted to Biogen Idec under Article 6.

10.1.3. Licensed Pre-Existing Technology. All right, title and interest in and to the Licensed Pre-Existing Technology shall, as between the Parties, remain owned solely by Sunesis, subject to the licenses granted to Biogen Idec under Article 6.

10.1.4. Disclosure.

(a) Each Party shall promptly disclose to the other, all inventions relating to Sunesis Collaboration Technology, Joint Collaboration Technology and Sunesis Core Technology conceived or reduced to practice (provided that such conception takes place after the ARCA Effective Date) in connection with this Agreement prior to the third (3rd) anniversary of the ARCA Effective Date.

(b) Each Party shall promptly disclose to the other, all inventions relating to BIIB062 Technology conceived or reduced to practice (provided that such conception takes place after the Effective Date) in connection with this Agreement.

10.2. Patent Prosecution.

10.2.1. Sunesis Core Technology. Sunesis shall have the right to control the Prosecution of the Sunesis Collaboration Patents, Licensed Pre-Existing Patents and patent applications and patents directed to Sunesis Core Technology using patent counsel of Sunesis' choice, provided that such decisions made by Sunesis in the Prosecution of such patents and patent applications shall be reasonable and Sunesis shall employ reasonable efforts not to substantially negatively impact Biogen Idec's rights hereunder.

10.2.2. Collaboration Patents other than the BIIB062 Patents. Biogen Idec shall have the first right, using in-house or outside legal counsel selected by Biogen Idec and, subject to approval, not to be unreasonably withheld by Sunesis, to Prosecute Collaboration Patents (other than the BIIB062 Patents and progeny thereof) throughout the world. Biogen Idec shall: (a) ensure that Sunesis receives copies of all correspondence between Biogen Idec and/or outside legal counsel and/or any governmental offices relating to such Prosecution of such Collaboration Patents, (b) timely consult with Sunesis regarding all substantive matters associated with such activities, (c) use reasonable efforts to periodically advise Sunesis on such activities and to respond to any reasonable inquiries Sunesis may from time to time raise in respect of such activities, and (d) not substantially negatively impact Sunesis' rights under such Collaboration Patents.

10.2.3. BIIB062 Patents. Sunesis shall have the first right, using in-house or outside legal counsel selected by Sunesis and, subject to approval, not to be unreasonably withheld by Biogen Idec, to Prosecute BIIB062 Patents throughout the world. Sunesis shall: (a) ensure that Biogen Idec receives copies of all correspondence between Sunesis and/or outside legal counsel and/or any governmental offices relating to such Prosecution of BIIB062 Patents for Biogen Idec's prior review, (b) timely consult with Biogen Idec regarding all substantive matters associated with such activities, (c) use reasonable efforts to periodically advise Biogen Idec on such activities and to respond to any reasonable inquiries Biogen Idec may from time to time raise in respect of such activities, (d) not seek to use the BIIB062 Patents to pursue non-BIIB062 subject matter, except to the extent reasonably necessary to obtain a Valid Claim covering BIIB062 or BIIB062 Products, and (e) not substantially negatively impact Biogen Idec's rights under the BIIB062 Patents. Notwithstanding the foregoing, Biogen Idec shall have the sole and exclusive right, at its own expense, to Prosecute any divisionals, continuations, or continuations-in-part of the BIIB062 Patents whose claims do not cover the use of BIIB062 in the Oncology Field, using the counsel that is mutually agreed upon by the Parties under this Section and under the conditions set forth for Prosecution by Sunesis in this Section, *mutatis mutandis*.

10.2.4. Prosecution Costs.

(a) During the Term of this Agreement, all costs associated with Prosecuting (i) the Sunesis Collaboration Patents, Licensed Pre-Existing Patents and patent

applications and patents within the Sunesis Core Technology shall be borne by Sunesis; and (ii) the Biogen Idec Collaboration Patents and Joint Collaboration patents (other than the BIIB062 Patents) shall be borne by Biogen Idec.

(b) During the Term of this Agreement, all costs associated with Prosecuting the BIIB062 Patents shall be borne by Sunesis (unless and until such time as the BIIB062 Product becomes a BIIB062 Reverted Product); provided, however, that Biogen Idec shall be solely responsible for all costs associated with Prosecuting all of the divisionals, continuations, or continuations-in-part that Biogen Idec is permitted to file pursuant to Section 10.2.3.

10.2.5. Cooperation. Each Party will cooperate fully with the other Party and provide all information and data, and sign any documents, reasonably necessary and requested by the other Party for the purpose of Prosecuting patent applications and patents pursuant to this Section 10.2.

10.2.6. Abandonment. Either Party may elect to decline to file or, having filed, decline to further Prosecute any Collaboration Patents or BIIB062 Patents for which they have been granted final decision making authority under Section 10.2.2 and 10.2.3 above and to which the other Party has received a license under the terms of this Agreement. In the event that a Party declines to file or, having filed, declines to further Prosecute any such pending patent rights, then such abandoning Party shall provide the other Party with written notice thereof prior to the expiration of any deadline, without considering any possible extensions thereof, relating to such activities, but in any event at least thirty five (35) business days prior notice. In such circumstances the non-abandoning Party shall have the right to decide, with reason and with written notice at least thirty (30) business days prior to the deadline, that such abandoning Party should continue to file or Prosecute such patent rights. The abandoning Party shall then have the option to decide, with at least twenty (20) business days' notice to the non-abandoning Party to: (i) continue to Prosecute such patent rights at its cost and expense, or (ii) allow the non-abandoning Party to Prosecute such patent rights at its own cost and expense using counsel of its own choice. In the event that the abandoning Party elects option (ii), then the abandoning Party shall cooperate with the other Party to promptly transfer relevant Prosecution materials to the other Party. It is understood and agreed that transfer of Prosecution of particular patent rights pursuant to subsection (ii) above shall not affect the ownership of patent rights or licenses otherwise provided in this Agreement.

10.2.7. To the extent that Biogen Idec elects to decline to file or, having filed, decline to further Prosecute or enforce any patent applications or patents in Licensed Patent Rights (as such term is defined in the Millennium-Sunesis-Biogen Idec Agreement) which are not Collaboration Technology, Biogen Idec shall provide Sunesis with notice and the opportunity to file or Prosecute and enforce such patent rights pursuant to the provisions of Section 10.2.6 and enforce such patent rights pursuant to the provisions of Section 10.3.2.

10.3. Enforcement.

10.3.1. Notice. In the event a Party becomes aware of any actual or potential infringement or misappropriation of the Sunesis Collaboration Technology or Joint Collaboration

Technology, in each case other than the BIIB062 Technology (a "Subject Infringement"), such Party shall notify the other Party. In the event a Party becomes aware of any actual or potential infringement or misappropriation of the BIIB062 Technology (a "BIIB062 Infringement"), such Party shall notify the other Party.

10.3.2. Biogen Idec. Subject to the terms of this Section 10.3.2, Biogen Idec shall have the sole right, but not the obligation, to take legal action to enforce and defend against Subject Infringements by Third Parties at its sole cost and expense, to the extent such Subject Infringement is within the field of use of Biogen Idec's exclusive license under Section 6.2.1 above. If, within six (6) months following a request by Sunesis to do so, Biogen Idec fails to take such action to enforce the Sunesis Collaboration Patents or Joint Collaboration Patents with respect to a Subject Infringement, Sunesis or its designee shall, in its sole discretion, have the right, at its sole expense, to take such action. In addition, Biogen Idec shall have the sole right, but not the obligation, to take legal action to enforce and defend any actual or potential infringement or misappropriation of the Biogen Idec Collaboration Technology.

10.3.3. Sunesis. To the extent a Subject Infringement is not covered by Section 10.3.2 above, Sunesis (or its designee) shall have the initial right, but not the obligation, to take reasonable legal action to enforce and defend against such Subject Infringements by Third Parties at its sole cost and expense. If, within six (6) months following a request by Biogen Idec to do so, Sunesis fails to take such action to enforce the Sunesis Collaboration Patents or Joint Collaboration Patents with respect to such Subject Infringement, and the Subject Infringement is in a field not licensed exclusively to Sunesis hereunder, Biogen Idec or its designee shall, in its sole discretion, have the right, at its sole expense, to take such action.

10.3.4. BIIB062 Enforcement Rights. For so long as the BIIB062 Exclusive License is in effect, Sunesis shall have the initial right, but not the obligation, to take reasonable legal action to enforce and defend the BIIB062 Technology against BIIB062 Infringements by Third Parties at its sole cost and expense. If, within six (6) months following a request by Biogen Idec to do so, Sunesis fails to take such action to enforce the BIIB062 Patents with respect to such BIIB062 Infringement, Biogen Idec or its designee shall, in its sole discretion, have the right, at its sole expense, to take such action. To the extent that Biogen Idec has an exclusive license to BIIB062 Reverted Products under Section 6.4.4 Biogen Idec shall have the sole right, but not the obligation, to take legal action to enforce and defend against Subject Infringements by Third Parties at its sole cost and expense.

10.3.5. Cooperation; Costs and Recoveries. If a Party (the "Controlling Party") brings an action with respect to a Subject Infringement or BIIB062 Infringement in accordance with this Section 10.3 (an "Infringement Action"), then the other Party (the "Cooperating Party") shall cooperate as reasonably requested, at such Controlling Party's expense, in the pursuit of such Infringement Action, including if necessary by joining as a nominal Party to the Infringement Action. In any case, the Cooperating Party shall have the right, even if not required to be joined, to participate in such Infringement Action with its own counsel at its own expense. The costs and expenses of the Infringement Action shall be the responsibility of the Controlling Party, and any damages or other monetary rewards or settlement payments actually received and retained by the Controlling Party shall first be applied to reimburse the Controlling Party's out-of-pocket expenses directly attributed to the Infringement Action, then the other Party's out-of-

pocket expenses directly attributed to the Infringement Action, and the remainder shall be shared as follows: { * }.

ARTICLE 11
CONFIDENTIALITY

11.1. Confidentiality. During the Term of this Agreement and for a period of five (5) years following the expiration or earlier termination hereof, each Party shall maintain in confidence the Confidential Information of the other Party, shall not use or grant the use of the Confidential Information of the other Party except as expressly permitted hereby, and shall not disclose the Confidential Information of the other Party (in each case, irrespective of whether such Confidential Information is also the Confidential Information of the receiving Party), except (i) on a need-to-know basis to such Party's directors, officers and employees, (ii) to such Party's consultants performing work contemplated by the Agreement, and to any bona fide subcontractor performing work for such Party hereunder, or (iii) to the extent such disclosure is reasonably necessary in connection with such Party's activities under rights and licenses expressly authorized by this Agreement (including the permitted Sublicensees). To the extent that disclosure to any person is authorized by this Agreement, prior to disclosure, a Party shall obtain written agreement of such person to hold in confidence and not disclose, use or grant the use of the Confidential Information of the other Party except as expressly permitted under this Agreement. Each Party shall notify the other Party promptly upon discovery of any unauthorized use or disclosure of the other Party's Confidential Information. Notwithstanding the foregoing, the exceptions set forth in (i), (ii) and (iii) above shall apply to disclosure by Sunesis of Confidential Information of Biogen Idec that is specifically related to the Collaboration Target (including without limitation { * } that are Confidential Information of such other Party) solely to the extent such disclosure is necessary for Sunesis and its employees, consultants and subcontractors to perform the obligations of the Parties hereunder. In addition, the exceptions set forth in (i), (ii) and (iii) above shall not apply to disclosure by Biogen Idec of Confidential Information of Sunesis that is specifically related to a Sunesis Target.

11.2. Permitted Use and Disclosures. The confidentiality obligations under this Article 11 shall not apply to the extent that a Party is required to disclose information by applicable law, regulation or order of a governmental agency or a court of competent jurisdiction; provided, however, that such Party shall provide written notice thereof to the other Party (to the extent not prohibited by law or court order), and consult with the other Party with respect to such disclosure to the extent reasonably protectable and provide the other party reasonable opportunity to object to any such disclosure or to request confidential treatment thereof. Notwithstanding the provisions of this Section, either Party may, to the extent necessary, disclose Confidential Information of the other Party, to any governmental or regulatory authority in connection with the development of a product which it has the right to develop under this Agreement.

11.3. Nondisclosure of Terms. Each of the Parties hereto agrees not to disclose the financial terms of this Agreement, to any Third Party without the prior written consent of the other Party hereto, which consent shall not be unreasonably withheld, except to such Party's attorneys, advisors, investors, potential bona fide collaborators and Sublicensees, and others on a need to know basis under circumstances that reasonably protect the confidentiality thereof, or to the extent required by law (and with appropriate requests made for confidential treatment),

including filings required to made by law with the Securities and Exchange Commission, or any national securities exchange. Notwithstanding the foregoing, (i) prior to execution of the OCA, the Parties have agreed upon the substance of information that can be used to describe the terms and conditions of this transaction, and each Party may disclose such information, as modified by mutual written agreement of the Parties, without the consent of the other Party; and (ii) prior to the issuance of a press release that discloses the execution of this Agreement and/or the existence of the BTK Target, the Parties shall agree upon the form of such press release.

11.4. Publication in Connection with the OCA Research Program. Any manuscript by Sunesis or Biogen Idec on subject matter in connection with the OCA Research Program to be published or publicly disclosed, shall be subject to the prior review of the other Party at least thirty (30) days prior to submission. Further, to avoid loss of patent rights as a result of premature public disclosure of patentable information, the receiving Party shall notify the disclosing Party in writing within thirty (30) days after receipt of any disclosure whether the receiving Party desires to file a patent application on any invention disclosed in such scientific results. In the event that the receiving Party desires to file such a patent application, the disclosing Party shall withhold publication or disclosure of such scientific results until the earlier of (i) a patent application is filed thereon, (ii) the Parties determine after consultation that no patentable invention exists, or (iii) ninety (90) days after receipt by the disclosing Party of the receiving Party's written notice of the receiving Party's desire to file such patent application. Further, if such scientific results contain the information of the other Party that is subject to use and nondisclosure restrictions under this Article 11, the publishing Party agrees to remove such information from the proposed publication or disclosure. Following the filing of any patent application within the Joint Collaboration Technology, in the period prior to the publication of such a patent application, neither Party shall make any written public disclosure regarding any invention claimed in such patent application without the prior consent of the other Party.

11.5. Publication in Connection with { * }. Notwithstanding Section 11.4, with respect to manuscripts that are related to the discovery and target of { * }, Biogen shall provide Sunesis a copy of each proposed manuscript at least { * } days prior to submission; provided, however, that Biogen shall be under no obligation to withhold publication or disclosure of { * }-related scientific results contained therein or otherwise modify or remove such information from the proposed manuscript.

11.6. Publication in Connection with the BIIB062. Notwithstanding Section 11.4, Sunesis shall not submit any manuscript or publications that are related to BIIB062 without the prior written consent of Biogen Idec, such consent not to be unreasonably withheld or delayed.

ARTICLE 12
REPRESENTATIONS AND WARRANTIES

12.1. Warranty. Each Party represents and warrants on its own behalf and on behalf of its Affiliates that:

(i) Such Party is duly organized, validly existing and in good standing under the laws of the jurisdiction in which it is organized.

(ii) It has the legal power and authority to enter into this Agreement and to perform all of its obligations hereunder.

(iii) This Agreement is a legal and valid obligation binding upon it and enforceable in accordance with its terms.

(iv) All necessary consents, approvals and authorizations of all governmental authorities and other persons or entities required to be obtained by such Party in connection with this Agreement have been obtained.

(v) The execution and delivery of this Agreement and the performance of such Party's obligations hereunder (a) do not conflict with or violate any requirement of applicable laws, regulations or orders of governmental bodies; and (b) do not conflict with, or constitute a default under, any contractual obligation of such Party. Neither Party will enter into any agreement with any Third Party that conflicts with the terms of this Agreement.

12.2. Additional Warranty of Sunesis. Sunesis represents and warrants that, to the best of its knowledge as of August 25, 2004, the practice of the Sunesis Core Technology is not generally dominated by patent rights of a Third Party. As of the Effective Date, Sunesis has not received any notice of infringement from any Third Party relating to the Sunesis Core Technology or any notice challenging the validity of the Sunesis Core Technology nor does Sunesis have any knowledge of any infringement relating to any of the Sunesis Core Technology. It is understood that Sunesis makes no representation or warranty with respect to any patent rights of Third Parties relating to the Collaboration Target.

12.3. Disclaimer. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, NEITHER PARTY MAKES ANY REPRESENTATIONS OR WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE COLLABORATION TECHNOLOGY, LICENSED PRE-EXISTING TECHNOLOGY, SUNESIS CORE TECHNOLOGY, COLLABORATION COMPOUNDS, BIIB062, OTHER COMPOUNDS, OR CONFIDENTIAL INFORMATION, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, VALIDITY OF ANY COLLABORATION TECHNOLOGY, PATENTED OR UNPATENTED, OR NONINFRINGEMENT OF THE INTELLECTUAL PROPERTY RIGHTS OF THIRD PARTIES.

ARTICLE 13
INDEMNIFICATION

13.1. Biogen Idec. Biogen Idec shall indemnify, defend and hold harmless Sunesis and its Affiliates and their respective directors, officers, employees, agents and their respective successors, heirs and assigns from and against any losses, costs, claims, damages, liabilities or expense (including reasonable attorneys' and professional fees and other expenses of litigation) (collectively, "Liabilities") resulting from any claims, demands, actions or other proceedings by

any Third Party to the extent resulting from: (i) the manufacture, use, sale, handling or storage of Products, Co-Funded Products, BIIB062 Reverted Products or Other Biogen Idec Products by Biogen Idec or its Affiliates or Sublicensees or other designees; (ii) the breach by Biogen Idec of the representations and warranties made in this Agreement; or (iii) the negligence or intentional misconduct of Biogen Idec or any of its agents or employees or failure of Biogen Idec or any of its agents or employees to comply with applicable laws and regulations; except, in each case, to the extent such Liabilities result from a material breach of this Agreement by Sunesis, negligence or intentional misconduct of Sunesis or any of its agents or employees (including sales representatives involved in co-promoting any Co-Promoted Product) or failure of Sunesis or any of its employees or agents to comply with applicable laws or regulations.

13.2. Sunesis. Sunesis agrees to indemnify, defend and hold harmless Biogen Idec and its Affiliates and their respective directors, officers, employees, agents and their respective heirs and assigns from and against any Liabilities resulting from any claims, demands, actions or other proceedings by any Third Party to the extent resulting from: (i) the manufacture, use, sale, handling or storage of Sunesis Products, Co-Promoted Products, BIIB062 Products or Reverted Products by Sunesis or its Affiliates or Sublicensees or other designees, (ii) the breach by Sunesis of its representations and warranties made in this Agreement, or (iii) the negligence or intentional misconduct of Sunesis or any of its agents or employees or failure of Sunesis or any of its agents or employees to comply with applicable laws and regulations; except, in each case, to the extent such Liabilities result from a breach of this Agreement by Biogen Idec, negligence or intentional misconduct of Biogen Idec or any of its agents or employees (including sales representatives involved in co-promoting any Co-Promoted Product) or failure of Biogen Idec or any of its employees or agents to comply with applicable laws or regulations.

13.3. Procedure. If a Party (the "Indemnitee") intends to claim indemnification under this ARTICLE 13, it shall promptly notify the other Party (the "Indemnitor") in writing of any claim, demand, action or other proceeding for which the Indemnitee intends to claim such indemnification, and the Indemnitor shall have the right to participate in, and, to the extent the Indemnitor so desires, to assume the defense thereof with counsel mutually satisfactory to the Parties; provided, however, that an Indemnitee shall have the right to retain its own counsel, with the fees and expenses to be paid by the Indemnitor, if representation of such Indemnitee by the counsel retained by the Indemnitor would be inappropriate due to actual or potential differing interests between the Indemnitee and any other Party represented by such counsel in such proceeding. The obligations of this Article 13 shall not apply to amounts paid in settlement of any claim, demand, action or other proceeding if such settlement is effected without the consent of the Indemnitor, which consent shall not be withheld or delayed unreasonably. The failure to deliver written notice to the Indemnitor within a reasonable time after the commencement of any such action, if prejudicial to its ability to defend such action, shall relieve the Indemnitor of any obligation to the Indemnitee under this Article 13. The Indemnitee, its employees and agents, shall reasonably cooperate with the Indemnitor and its legal representatives in the investigation of any claim, demand, action or other proceeding covered by this Article 13.

ARTICLE 14
TERM AND TERMINATION

14.1. Term. The Term of this Agreement shall commence on the Effective Date, and shall continue in full force and effect on a country-by-country, Product-by-Product, Sunesis Product-by-Sunesis Product, Other Biogen Idec Product-by-Other Biogen Idec Product, BIIB062 Product-by-BIIB062 Product, and Reverted Product-by-Reverted Product basis until expiration of both Parties' royalty payment obligations in such country with respect to such Products, Sunesis Products, Other Biogen Idec Products, BIIB062 Products or Reverted Products, as applicable, in each case unless earlier terminated as provided in this Article 14 (the "Term").

14.2. Termination for Breach. Either Party to this Agreement may terminate this Agreement in the event the other Party hereto shall have materially breached or defaulted in the performance of any of its material obligations hereunder, and such default shall have continued for sixty (60) days after written notice thereof was provided to the breaching Party by the non-breaching Party. Any termination shall become effective at the end of such sixty (60) day period unless the breaching Party has cured any such breach or default prior to the expiration of the sixty (60) day period. Notwithstanding the foregoing, failure by either Party to use Commercially Reasonable and Diligent Efforts with respect to the development and commercialization of a Product, Other Biogen Idec Product, Sunesis Product, BIIB062 Product, or Reverted Product shall not be deemed a breach of this Agreement.

14.3. Termination for Bankruptcy. Either Party hereto shall have the right to terminate this Agreement forthwith by written notice to the other Party (i) if the other Party is declared insolvent or bankrupt by a court of competent jurisdiction, (ii) if a voluntary or involuntary petition in bankruptcy is filed in any court of competent jurisdiction against the other Party and such petition is not dismissed within ninety (90) days after filing, (iii) if the other Party shall make or execute an assignment of substantially all of its assets for the benefit of creditors, or (iv) substantially all of the assets of such other Party are seized or attached and not released within ninety (90) days thereafter. All rights and licenses granted under this Agreement by one Party to the other Party are, and shall otherwise be deemed for purposes of Section 365(n) of the Bankruptcy Code, licenses of rights to "intellectual property" as defined under Section 101 (56) of the Bankruptcy Code. The Parties agree that the licensing Party under this Agreement shall retain and may fully exercise all of its rights and elections under the Bankruptcy Code in the event of a bankruptcy by the other Party. The Parties further agree that in the event of the commencement of a bankruptcy proceeding by or against one Party under the Bankruptcy Code, the other Party shall be entitled to complete access to any such intellectual property pertaining to the rights granted in the licenses hereunder of the Party by or against whom a bankruptcy proceeding has been commenced and all embodiments of such intellectual property.

14.4. Termination of Main Terms for Convenience by Biogen Idec. At any time, by providing Sunesis written notice at least ninety (90) days in advance, and provided that Biogen Idec is not in breach of the Main Terms, Biogen Idec will have the right to terminate the provisions of this Agreement that are included in the Main Terms. For the avoidance of doubt, upon termination of the Main Terms pursuant to this Section 14.4, the BIIB062 Terms shall remain in full force and effect.

14.5. Termination of BIIB062 Terms for Convenience by Sunesis. At any time, by providing Biogen Idec written notice at least ninety (90) days in advance, and provided that Sunesis is not in breach of the BIIB062 Terms, Sunesis will have the right to terminate the provisions of this Agreement that are included in the BIIB062 Terms. For the avoidance of doubt, upon termination of the BIIB062 Terms pursuant to this Section 14.5, the Main Terms shall remain in full force and effect.

14.6. Termination of BIIB062 Terms by Biogen. In the event that Sunesis, its Affiliates and their Sublicensees have all failed to initiate a Phase I clinical trial for a BIIB062 Product in a Major Market by December 31, 2016 (the "Phase I Date"), then Biogen shall have the right, after the Phase I Date, and upon written notice to Sunesis, to immediately terminate the provisions of this Agreement that are included in the BIIB062 Terms. For purposes of this Section 14.6, a Phase I clinical trial shall be deemed initiated upon the first dosing of the first research subject. For the avoidance of doubt, upon termination of the BIIB062 Terms pursuant to this Section 14.6, the Main Terms shall remain in full force and effect.

14.7. Effect of Breach or Termination.

14.7.1. Accrued Rights and Obligations. Termination of this Agreement, the Main Terms or the BIIB062 Terms for any reason shall not release either Party hereto from any liability which, at the time of such termination, has already accrued to the other Party or which is attributable to a period prior to such termination nor preclude either Party from pursuing any rights and remedies it may have hereunder or at law or in equity with respect to any breach of this Agreement.

14.7.2. Termination by Biogen Idec for Breach or Bankruptcy of Sunesis. In the event of termination of this Agreement by Biogen Idec pursuant to Section 14.2 due to Sunesis' breach or by Biogen Idec pursuant to Section 14.3 for Sunesis' bankruptcy, all BIIB062 and BIIB062 Products shall be delivered to Biogen Idec at Biogen Idec's cost, and in addition to those provisions surviving under Section 14.11, the following shall apply:

(a) Sections 3.5.2 (BIIB062 Reverted Products), Section 6.2.4 (Reverted Products) (but only with respect to Reverted Products in existence as of the effective date of such termination); Section 6.4.4 (BIIB062 Reverted Products License); 7.4 (Development Milestones); 7.5 (Royalties on Annual Net Sales of Products); 7.6 (Royalties on Net Sales of Sunesis Products, Non-Kinase Other Biogen Idec Products and BIIB062 Products) (except that any royalties payable by Biogen Idec under Sections 7.3, 7.4, 7.5, and 7.6, commencing upon such termination and continuing thereafter, shall be reduced by fifty percent (50%)); 7.7 (Royalty Term); ARTICLE 10 (Intellectual Property)(other than Sections 10.1.4, 10.2.2, 10.2.3, 10.2.4 and the first two sentences of Section 10.3.4, which shall terminate); Exhibit 3.5.1 (Reverted Products) (but only with respect to such Reverted Products in existence as of the effective date of such termination); and Exhibit 3.5.2 (BIIB062 Reverted Products) shall survive.

(b) Biogen Idec shall control Prosecution of all Collaboration Patents (including Sunesis, Biogen Idec and Joint) at its own expense. Sunesis shall be given the opportunity to review Biogen Idec's activities and reasonably consult with Biogen Idec with respect to Sunesis Collaboration Patents and Joint Collaboration Patents, and Biogen Idec shall

in good faith consider including in such patent applications such claims as Sunesis reasonably requests. Biogen Idec shall keep Sunesis reasonably informed as to the status of such patent matters, including without limitation by providing Sunesis with (i) copies of any documents relating to Sunesis Collaboration Patents and Joint Collaboration Patents which Biogen Idec receives from any patent office within twenty (20) days of receipt thereof, including notice of all interferences, reissues, reexaminations, oppositions or requests for patent term extensions, and (ii) the opportunity to review and comment on any documents relating to Sunesis Collaboration Patents and Joint Collaboration Patents which will be filed in any patent office as soon practicable but in all cases at least twenty (20) days prior to such filing. All costs associated with filing, Prosecuting, issuing and maintaining the Licensed Pre-Existing Patents and patent applications and patents within the Sunesis Core Technology shall be borne by Sunesis. In conducting the Prosecution activities described in this Section 14.7.2(b), each Party shall employ reasonable efforts not to substantially negatively impact the other Party's rights under the surviving provisions of this Agreement.

(c) Sunesis' rights and obligations under Section 3.2.3 shall survive with respect to Co-Funded Products for which Sunesis has exercised its Co-Funding Option prior to such termination, and Biogen Idec shall pay royalties on any such Co-Funded Products in accordance with Section 7.5.2. Biogen Idec shall no longer be obligated to provide the detailed plans required of a Co-Development Plan and Budget to Sunesis, but shall provide Sunesis with annual budgets of post Phase I Development Costs for any such Co-Funded Products. Sunesis' Co-Funding Option with respect to future Products shall terminate, as will Article 4, as well as Sunesis' right to participate in the JDC under Section 5.4 and any Product Teams under Section 3.3.

14.7.3. Termination by Sunesis for Breach or Bankruptcy of Biogen Idec. In the event of termination of this Agreement by Sunesis pursuant to Section 14.2 due to Biogen Idec's breach or by Sunesis pursuant to Section 14.3 for Biogen Idec's bankruptcy, the BIIB062 Terms shall remain in full force and effect, all Collaboration Compounds in Reverted Products shall be delivered to Sunesis at Sunesis' cost, and in addition to those provisions surviving under Section 14.11, the following shall apply:

(a) Sections 3.5.1 (Reverted Products); 6.2.4 (Reverted Products); 7.4 (Development Milestones); 7.5 (Royalties on Annual Net Sales of Products); 7.6 (Royalties on Net Sales of Sunesis Products and Other Biogen Idec Products); (except that any royalties payable by Sunesis under Sections 7.5 and 7.6.2, commencing upon such termination and continuing thereafter, shall be reduced by fifty percent (50%)); 7.7 (Royalty Term); ARTICLE 9 (Diligence); ARTICLE 10 (Intellectual Property)(other than Sections 10.1.4(a), 10.2.2, 10.2.3, and 10.2.4(a) which shall terminate); and Exhibit 3.5.1 (Reverted Products) shall survive.

(b) Biogen Idec shall control Prosecution of all Biogen Idec Collaboration Patents and Joint Collaboration Patents at its own expense. Sunesis shall control Prosecution of all Sunesis Collaboration Patents at its own expense. Sunesis shall be given the opportunity to review Biogen Idec's activities and reasonably consult with Biogen Idec with respect to Sunesis Collaboration Patents and Joint Collaboration Patents, and Biogen Idec shall in good faith consider including in such patent applications such claims as Sunesis reasonably requests. Biogen Idec shall keep Sunesis reasonably informed as to the status of such patent

matters, including without limitation by providing Sunesis with (i) copies of any documents relating to Sunesis Collaboration Patents and Joint Collaboration Patents which Biogen Idec receives from any patent office within twenty (20) days of receipt thereof, including notice of all interferences, reissues, reexaminations, oppositions or requests for patent term extensions, and (ii) the opportunity to review and comment on any documents relating to Sunesis Collaboration Patents and Joint Collaboration Patents which will be filed in any patent office as soon practicable but in all cases at least twenty (20) days prior to such filing. All costs associated with filing, Prosecuting, issuing and maintaining the Licensed Pre-Existing Patents and patent applications and patents within the Sunesis Core Technology shall be borne by Sunesis. In conducting the Prosecution activities described in this Section 14.7.3(b), each Party shall employ reasonable efforts not to substantially negatively impact the other Party's rights under the surviving provisions of this Agreement.

(c) Biogen Idec's rights with respect to Co-Funded Products and the Co-Funded Option shall be as follows:

(i) With respect to any Co-Funded Product for which Sunesis has exercised its Co-Funding Option, and for which Biogen Idec has not obtained Regulatory Approval in any territory in the Co-Funded Territory for such Co-Funded Product, in each case as of the effective date of such termination, such Co-Funded Product shall become a Reverted Product in accordance with Section 3.5.1 and Exhibit 3.5.1 and Sunesis shall thereafter pay royalties to Biogen Idec on Net Sales of such Reverted Product in accordance with Section 7.5.1.

(ii) With respect to any Co-Funded Product for which Sunesis has exercised its Co-Funding Option, and for which Biogen Idec has obtained Regulatory Approval in any territory in the Co-Funded Territory for such Co-Funded Product, in each case as of the effective date of such termination, Sunesis' rights and obligations under Section 3.2.3 shall survive, and Biogen Idec shall pay royalties on any such Co-Funded Products in accordance with Section 7.5.2. Biogen Idec shall no longer be obligated to provide the detailed plans required of a Co-Development Plan and Budget to Sunesis, but shall provide Sunesis with annual budgets of post Phase I Development Costs for any such Co-Funded Products. Sunesis' Co-Funding Option with respect to future Products shall terminate, as will Article 4, as well as Sunesis' right to participate in the JDC under Section 5.4 and any Product Teams under Section 3.3.

(iii) Sunesis' Co-Funding Option under Section 3.2 with respect to future Products shall continue (i.e. with respect to Products that are not Co-Funded Products as of the effective date of such termination), provided that Biogen Idec shall no longer be obligated to provide for each Product the detailed plans and clinical data required of an Initial Development Plan and Phase II Notice pursuant to Section 3.2.1. Biogen Idec shall, however, provide Sunesis with annual budgets of post Phase I Development Costs for such Co-Funded Product in accordance with the timetable for a Phase II Notice set forth in Section 3.2.1, and shall provide reasonable cooperation to Sunesis in evaluating such Product and the post Phase I Development Costs related thereto, including consulting with Sunesis in good faith regarding such annual budgets and the financial, scientific and regulatory assumptions reflected therein.

14.8. Termination of the Main Terms by Biogen Idec for Convenience. In the event of termination of the Main Terms by Biogen Idec pursuant to Section 14.4, the BIIB062 Terms shall remain in full force and effect, all Collaboration Compounds in Reverted Products shall be delivered to Sunesis at Sunesis' cost, and in addition to those provisions surviving under Section 14.11, the following shall apply:

14.8.1. Articles 3 (Product Development); 4 (Product Commercialization); 5 (Management) (other than Section 5.3, which shall terminate); 6.2.4 (Reverted Products); 7.4 (Development Milestones); 7.5 (Royalties on Annual Net Sales of Products); 7.6 (Royalties on Net Sales of Sunesis Products, Reverted Products, Non-Kinase Other Biogen Idec Products and BIIB062 Products) (except that any royalties payable by Sunesis under Sections 7.5 and 7.6.2, commencing upon such termination and continuing thereafter, shall be reduced by fifty percent (50%)); Section 7.7 (Royalty Term); ARTICLE 9 (Diligence); ARTICLE 10 (Intellectual Property)(other than Sections 10.1.4(a), 10.2.2 and 10.2.4(a), which shall terminate); and Exhibit 3.5.1 (Reverted Products) shall survive.

14.8.2. Biogen Idec shall control Prosecution of all Biogen Idec Collaboration Patents and Joint Collaboration Patents at its own expense. Sunesis shall control Prosecution of all Sunesis Collaboration Patents at its own expense. Sunesis shall be given the opportunity to review Biogen Idec's activities and provide input with respect to Sunesis Collaboration Patents and Joint Collaboration Patents, and Biogen Idec shall in good faith consider including in such patent applications such claims as Sunesis reasonably requests. Biogen Idec shall keep Sunesis reasonably informed as to the status of such patent matters, including without limitation by providing Sunesis with (i) copies of any documents relating to Sunesis Collaboration Patents and Joint Collaboration Patents which Biogen Idec receives from any patent office within twenty (20) days of receipt thereof, including notice of all interferences, reissues, reexaminations, oppositions or requests for patent term extensions, and (ii) the opportunity to review and comment on any documents relating to Sunesis Collaboration Patents and Joint Collaboration Patents which will be filed in any patent office as soon practicable but in all cases at least twenty (20) days prior to such filing. All costs associated with filing, Prosecuting, issuing and maintaining the Licensed Pre-Existing Patents and patent applications and patents within the Sunesis Core Technology shall be borne by Sunesis. In conducting the Prosecution activities described in this Section 14.8.2, each Party shall employ reasonable efforts not to substantially negatively impact the other Party's rights under the surviving provisions of this Agreement.

14.8.3. Biogen Idec's rights with respect to Co-Funded Products and the Co-Funded Option shall be as follows:

(a) With respect to any Co-Funded Product for which Sunesis has exercised its Co-Funding Option, and for which Biogen Idec has not obtained Regulatory Approval in any territory in the Co-Funded Territory for such Co-Funded Product, in each case as of the effective date of such termination, such Co-Funded Product shall become a Reverted Product in accordance with Section 3.5.1 and Exhibit 3.5.1 and Sunesis shall thereafter pay royalties to Biogen Idec on Net Sales of such Reverted Product in accordance with Section 7.5.1.

(b) With respect to any Co-Funded Product for which Sunesis has exercised its Co-Funding Option, and for which Biogen Idec has obtained Regulatory Approval

in any territory in the Co-Funded Territory for such Co-Funded Product, in each case as of the effective date of such termination, Sunesis' rights and obligations under Section 3.2.3 shall survive, and Biogen Idec shall pay royalties on any such Co-Funded Products in accordance with Section 7.5.2. Biogen Idec shall no longer be obligated to provide the detailed plans required of a Co-Development Plan and Budget to Sunesis, but shall provide Sunesis with annual budgets of post Phase I Development Costs for any such Co-Funded Products. Sunesis' Co-Funding Option with respect to future Products shall terminate, as will Article 4, as well as Sunesis' right to participate in the JDC under Section 5.4 and any Product Teams under Section 3.3.

(c) Sunesis' Co-Funding Option under Section 3.2 with respect to future Products shall continue (i.e. with respect to Products that are not Co-Funded Products as of the effective date of such termination), provided that Biogen Idec shall no longer be obligated to provide for each Product the detailed plans and clinical data required of an Initial Development Plan and Phase II Notice pursuant to Section 3.2.1. Biogen Idec shall, however, provide Sunesis with annual budgets of post Phase I Development Costs for such Co-Funded Product in accordance with the timetable for a Phase II Notice set forth in Section 3.2.1, and shall provide reasonable cooperation to Sunesis in evaluating such Product and the post Phase I Development Costs related thereto, including consulting with Sunesis in good faith regarding such annual budgets and the financial, scientific and regulatory assumptions reflected therein.

14.9. Termination of BIIB062 Terms by Either Party. In the event of termination of the BIIB062 Terms, either by Sunesis pursuant to Section 14.5, or by Biogen Idec pursuant to Section 14.6, the Main Terms shall remain is full force and effect, all BIIB062 and BIIB062 Products shall be delivered to Biogen Idec at Biogen Idec's cost, and with respect to BIIB062, in addition to those provisions surviving under Section 14.11, the following provisions shall also survive: Section 3.4 (Regulatory Matters); Section 3.5.2 (BIIB062 Product Reversion); Section 6.4.4 (BIIB062 Reverted Product License); Section 7.4 (Development Milestones); 7.5 (Royalties on Annual Net Sales of Products); 7.6 (Royalties on Net Sales of Sunesis Products, Reverted Products, Non-Kinase Other Biogen Idec Products and BIIB062 Products); Section 7.7 (Royalty Term); and ARTICLE 10 (Intellectual Property) (other than Sections 10.1.4(b), 10.2.3, 10.2.4(b) and the first two sentences of Section 10.3.4, which, to the extent they apply to BIIB062, shall terminate with respect to BIIB062);

14.10. Transition of Information and Materials. With respect to a Party's obligation to transition Collaboration Technology, information and material with respect to a particular compound, each Party shall cooperate fully (and cause its Affiliates to cooperate fully) with the other Party to facilitate a smooth and prompt transition of Collaboration Technology, information and materials that are necessary or useful for the receiving Party to further research, develop, or otherwise exploit such target and compounds in the Field.

14.11. Survival Sections. In addition to the provisions set forth in Sections 14.7.2, 14.7.3, 14.8 and 14.9 above, as applicable, the following provisions shall survive the expiration or termination of this Agreement, the Main Terms or the BIIB062 Terms for any reason: Articles 1 (Definitions), 8 (Payments, Books and Records), 11 (Confidentiality), 12 (Representations and Warranties), 13 (Indemnification), 14 (Term and Termination), 15 (Dispute Resolution) and 16 (Miscellaneous); and Sections 6.2.1, 6.2.2 (Commercialization Licenses to Biogen Idec for Target Selective Compounds); 6.3 (Other Compounds); and 6.5.

ARTICLE 15
DISPUTE RESOLUTION

15.1. Escalation to Senior Executives. In the event of a dispute or matter of significant concern arises between the Parties, then at the request of either Party, the matter shall be escalated to a senior executive from each Party. Such senior executive shall be either the CEO of such Party, or another senior executive of such Party who both reports to the CEO and who has direct management responsibility for the matter in dispute. Upon such request, such senior executives shall make themselves reasonably available to meet, and shall meet either by telephone or if, specifically requested, in person, to attempt to resolve such matter, and shall thereafter continue to use good faith efforts to attempt to resolve such matter unless it becomes clear that the matter cannot be resolved by mutual agreement. Thereafter either Party may pursue such legal process as is otherwise available under applicable law, except as otherwise set forth in Section 5.1.4 above or Section 15.2 below.

15.2. Independent Scientific Verification of Certain Disputes.

15.2.1. Independent Measurements. In the event the Parties are unable to reach agreement regarding (i) whether or not a compound or product is Target Selective against the Collaboration Target, (ii) the IC50 of a particular "selected lead" as that term is defined in Section 1.72 above, or (iii) any other independently verifiable scientific determination or measurement, and the Parties have not resolved such dispute through good faith negotiations, such dispute will be resolved through performance of the relevant determination by an independent Third Party. The findings of such Third Party with respect to such dispute shall be binding on the Parties, and the costs of such testing shall be shared equally by the Parties.

15.2.2. [Reserved].

15.3. Injunctive Relief. This Article 15 shall not be construed to prohibit either Party from seeking preliminary or permanent injunctive relief, restraining order or degree of specific performance in any court of competent jurisdiction to the extent not prohibited by this Agreement. For avoidance of doubt, any such equitable remedies provided under this Article 15 shall be cumulative and not exclusive and are in addition to any other remedies, which either Party may have under this Agreement or applicable law.

15.4. Matters to Proceed to Court. Notwithstanding the foregoing, any dispute relating to the determination of validity of a Party's patents or other issues relating solely to a Party's intellectual property and any dispute asserting breach of this Agreement or of the representations and warranties made hereunder shall be submitted exclusively to the federal court in { * } and the Parties hereby consent to the jurisdiction and venue of such court.

ARTICLE 16
MISCELLANEOUS

16.1. Governing Laws. This Agreement and any dispute arising from the construction, performance or breach hereof shall be governed by and construed, and enforced in accordance with, the laws of the state of { * } without reference to conflicts of laws principles.

16.2. Waiver. It is agreed that no waiver by either Party hereto of any breach or default of any of the covenants or agreements herein set forth shall be deemed a waiver as to any subsequent and/or similar breach or default.

16.3. Assignment. This Agreement shall not be assignable by either Party without the written consent of the other Party hereto, except (i) either Party may assign this Agreement without such consent to its Affiliates, or to an entity that acquires all or substantially all of the business or assets of such Party whether by merger, reorganization, acquisition, sale, operation of law, or otherwise; provided, however, that the assignee shall agree in writing to be bound by the terms and conditions of this Agreement and (ii) Sunesis may assign its rights and obligations under the portion of this Agreement that constitutes the BIIB062 Terms without such consent to its Affiliates, or to an entity that acquires all or substantially all of the business or assets of Sunesis that relate to BIIB062 whether by merger, reorganization, acquisition, sale, operation of law, or otherwise; provided, however, that the assignee shall agree in writing to be bound by the terms and conditions of the BIIB062 Terms and such other terms of this Agreement as would be appropriate for such assignment.

16.4. Independent Contractors. The relationship of the Parties hereto is that of independent contractors. The Parties hereto are not deemed to be agents, partners or joint venturers of the others for any purpose as a result of this Agreement or the transactions contemplated thereby.

16.5. Compliance with Laws. In exercising their rights under this license, the Parties shall fully comply in all material respects with the requirements of any and all applicable laws, regulations, rules and orders of any governmental body having jurisdiction over the exercise of rights under this license including, without limitation, those applicable to the discovery, development, manufacture, distribution, import and export and sale of Products pursuant to this Agreement.

16.6. Patent Marking. Biogen Idec agrees to mark and use reasonable efforts to make all its Sublicensees mark all Products and Other Biogen Idec Products sold pursuant to this Agreement in accordance with the applicable statute or regulations relating to patent marking in the country or countries of manufacture and sale thereof. Sunesis agrees to mark and use reasonable efforts to make its Sublicensees mark all Sunesis Products and BIIB062 Products sold pursuant to this Agreement in accordance with the applicable statute or regulations relating to patent marking in the country or countries of manufacture and sale thereof.

16.7. Notices. All notices, requests and other communications hereunder shall be in writing and shall be personally delivered or by registered or certified mail, return receipt requested, postage prepaid, in each case to the respective address specified below, or such other address as may be specified in writing to the other Parties hereto and shall be deemed to have been given upon receipt:

Sunesis: Sunesis Pharmaceuticals, Inc.
395 Oyster Point Boulevard, Suite 400
South San Francisco, California 94080
Attn: CEO

With a copy to: Cooley LLP
3175 Hanover St.
Palo Alto, California 94304-1050
Attn: Glen Sato

Biogen Idec Biogen Idec MA Inc.
14 Cambridge Center
Cambridge, Massachusetts 02142
Attn: Executive Vice President, Corporate Development

With a copy to: Biogen Idec MA Inc.
14 Cambridge Center
Cambridge, Massachusetts 02142
Attn: General Counsel

16.8. Severability. In the event that any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement shall continue in full force and effect to the fullest extent permitted by law without said provision, and the Parties shall amend the Agreement to the extent feasible to lawfully include the substance of the excluded term to as fully as possible realize the intent of the Parties and their commercial bargain. If a Party seeks to avoid a provision of this Agreement by asserting that such provision is invalid, illegal or otherwise unenforceable, the other Party shall have the right to terminate this Agreement upon sixty (60) days' prior written notice to the asserting Party, unless such assertion is eliminated and cured within such sixty (60) day period. If Biogen Idec has sought to so avoid a provision of this Agreement, such termination shall be deemed a termination by Biogen Idec under Section 14.4 above, and if Sunesis has sought such an avoidance, such termination shall be deemed a termination for breach by Sunesis under Section 14.2 above.

16.9. Advice of Counsel. Sunesis and Biogen Idec have each consulted counsel of their choice regarding this Agreement, and each acknowledges and agrees that this Agreement shall not be deemed to have been drafted by one Party or another and will be construed accordingly.

16.10. Performance Warranty. Each Party hereby warrants and guarantees the performance of any and all rights and obligations of this Agreement by its Affiliates and Sublicensees.

16.11. Complete Agreement. This Agreement with its Exhibits, constitutes the entire agreement, both written and oral, between the Parties with respect to the subject matter hereof, and all prior agreements respecting the subject matter hereof, either written or oral, express or Biogen Idec-Sunesis Collaboration Agreement implied, shall be abrogated, canceled, and are null and void and of no effect. No amendment or change hereof or addition hereto shall be effective or binding on either of the Parties hereto unless reduced to writing and executed by the respective duly authorized representatives of Sunesis and Biogen Idec.

16.12. Headings. The captions to the several Sections and Articles hereof are not a part of this Agreement, but are included merely for convenience of reference and shall not affect its meaning or interpretation.

16.13. Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed to be an original and all of which together shall be deemed to be one and the same agreement.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be duly executed by their authorized representatives and delivered in duplicate originals as of the Effective Date.

BIOGEN IDEC MA INC.	SUNESIS PHARMACEUTICALS, INC.
By: /s/ Douglas E. Williams	By: /s/ Eric Bjerkholt
Name: Douglas E. Williams	Name: Eric Bjerkholt
Title: Executive Vice President, Research and Development	Title: Chief Financial Officer

{ * } = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

EXHIBIT 1.6

BIIB062 PATENTS

{ * }

EXHIBIT 1.67

1. Sunesis Core Technology

Sunesis No.	Serial No.	Title	Status
SU-100	US 09/105,372	Methods for Rapidly Identifying Small Organic Molecule Ligands for Binding to Biological Target Molecules	Granted U.S. Patent No. 6,335,155
SU-100 D1C1	US 10/043,833	Methods for Rapidly Identifying Small Organic Molecule Ligands for Binding to Biological Target Molecules	Granted as US Patent No. 6,811,966
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{ * } = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

EXHIBIT 1.72

BTK Assays

{ * }

{2 pages omitted}

{ * } = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

EXHIBIT 2.7.1

Phase II Drug Compounds

None.

{ * } = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

EXHIBIT 3.5.1

Reverted Products

Section 1. Reversion of a Co-Funded Product to Sunesis.

1.1. Biogen Idec shall cooperate fully with Sunesis and shall provide Sunesis with all data, documentation, information and materials generated or used by Biogen Idec in the research, development, production or other exploitation of such Reverted Product, and Sunesis shall have the right to use and disclose such items.

1.2. To the extent not already terminated, the license granted to Biogen Idec under Section 6.2 shall terminate with respect to Collaboration Compounds incorporated in such Reverted Product. Thereafter, such Collaboration Compounds shall be deemed Terminated Compounds for the purposes of Section 6.2.4.

1.3. All right, title and interest in and to (i) all regulatory filings related to the Reverted Product, including without limitation all INDs, NDAs and all information and correspondence related thereto, and (ii) any trademarks specific to the Reverted Product shall be transferred and assigned to Sunesis.

1.4. Biogen Idec shall cooperate fully with Sunesis upon Sunesis' request to assign to Sunesis, or otherwise secure for Sunesis the benefits of, any arrangement between Biogen Idec and a Third Party related to the research, development, production or exploitation of such Reverted Product, including without limitation clinical research agreements, manufacturing and supply agreements and distribution agreements. { * }

1.5. Without limiting the foregoing, Biogen Idec shall use reasonable efforts to implement the provisions of this Exhibit 3.5.1 and to ensure orderly transition and uninterrupted research and development of the Reverted Product. Sunesis shall promptly reimburse Biogen Idec's reasonable out-of-pocket costs with respect to activities, services and materials provided by Biogen Idec under Section 1 of this Exhibit 3.5.1.

Section 2. Termination of a Reverted Product and Reversion to Biogen Idec.

2.1 Sunesis shall cooperate fully with Biogen Idec and shall provide Biogen Idec with all data, documentation, information and materials generated or used by Sunesis in the research, development, production or other exploitation of such Reverted Product, and Biogen Idec shall have the right to use and disclose such items.

2.2 All right, title and interest in and to (i) all regulatory filings related to such Reverted Product, including without limitation all INDs, NDAs and all information and correspondence related thereto, and (ii) any trademarks specific to the Reverted Product shall be transferred and assigned to Biogen Idec.

2.3 Sunesis shall cooperate fully with Biogen Idec upon Biogen Idec's request to assign to Biogen Idec, or otherwise secure for Biogen Idec the benefits of, any arrangement

between Sunesis and a Third Party related to the research, development, production or exploitation of such Reverted Product, including without limitation clinical research agreements, manufacturing and supply agreements and distribution agreements. { * }

2.4 Without limiting the foregoing, Sunesis shall use reasonable efforts to implement the provisions of this Section 9.4 and to ensure orderly transition and uninterrupted research and development of such Reverted Product. Biogen Idec shall promptly reimburse Sunesis' reasonable out-of-pocket costs with respect to activities, services and materials provided by Sunesis under Section 2 of this Exhibit 3.5.1.

EXHIBIT 3.5.2

BIIB062 Reverted Products

The terms of this Exhibit 3.5.2 shall have effect upon only the effective date of any such notice by Biogen Idec or termination recognized in Section 3.5.2 of the Agreement.

1.1. Sunesis shall cooperate fully with Biogen Idec and shall provide Biogen Idec with all data, documentation, information and materials generated or used by Sunesis in the development, production or other exploitation of BIIB062 and the BIIB062 Reverted Product, and Biogen Idec shall have the right to use and disclose such items.

1.2. The license granted to Sunesis under Section 6.4.1 shall terminate with respect to BIIB062 and the BIIB062 Reverted Product and the license granted to Biogen Idec under Section 6.4.4 shall commence in accordance with its terms. Additionally, the obligations and restrictions under Sections 6.4.2 and 6.4.3 shall cease to apply to Biogen Idec.

1.3. All right, title and interest in and to (i) all regulatory filings related to BIIB062 and the BIIB062 Reverted Product, including without limitation all INDs, NDAs and all information and correspondence related thereto, and (ii) any trademarks specific to the BIIB062 Reverted Product shall be transferred and assigned to Biogen Idec.

1.4. Sunesis shall cooperate fully with Biogen Idec upon Biogen Idec's request to assign to Biogen Idec, or otherwise secure for Biogen Idec the benefits of, any arrangement between Sunesis and a Third Party related to the development, production or exploitation of BIIB062 or the BIIB062 Reverted Product, including without limitation clinical research agreements, manufacturing and supply agreements and distribution agreements. { * }

1.5. Without limiting the foregoing, Sunesis shall use reasonable efforts to implement the provisions of this Exhibit 3.5.2 and to ensure orderly transition and uninterrupted development and commercialization of BIIB062 and the BIIB062 Reverted Product. Biogen Idec shall promptly reimburse Sunesis' reasonable out-of-pocket costs with respect to activities, services and materials provided by Sunesis under this Exhibit 3.5.2.

Exhibit 21.1

List of Subsidiaries

Subsidiary Legal Name	State or other Jurisdiction of Incorporation
Sunesis Europe Limited	United Kingdom

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the following Registration Statements:

(1) Registration Statement (Form S-3 No. 333-218607) of Sunesis Pharmaceuticals, Inc.,
(2) Registration Statement (Form S-8 No. 333-128647) pertaining to the 1998 Stock Plan, the 2001 Stock Plan, the 2005 Equity Incentive Award Plan and the Employee Stock Purchase Plan of Sunesis Pharmaceuticals, Inc.,
(3) Registration Statement (Form S-8 No. 333-138758) pertaining to the 2001 Stock Plan, the 2005 Equity Incentive Award Plan and the Employee Stock Purchase Plan of Sunesis Pharmaceuticals, Inc.,
(4) Registration Statement (Form S-8 No. 333-145404) pertaining to the 2005 Equity Incentive Award Plan, the 2006 Employment Commencement Incentive Plan and the Employee Stock Purchase Plan of Sunesis Pharmaceuticals, Inc.,
(5) Registration Statement (Form S-8 No. 333-150834) and Registration Statement (Form S-8 No. 333-160528) pertaining to the 2005 Equity Incentive Award Plan, the Amended and Restated 2006 Employment Commencement Incentive Plan and the Employee Stock Purchase Plan of Sunesis Pharmaceuticals, Inc.,
(6) Registration Statement (Form S-8 No. 333-174732) pertaining to the 2011 Equity Incentive Plan and the 2011 Employee Stock Purchase Plan of Sunesis Pharmaceuticals, Inc.,
(7) Registration Statement (Form S-8 No. 333-180101) and Registration Statement (Form S-8 No. 333-187234) pertaining to the 2011 Equity Incentive Plan of Sunesis Pharmaceuticals, Inc.,
(8) Registration Statement (Form S-8 No. 333-195781) and Registration Statement (Form S-8 No. 333-202696) pertaining to the 2011 Equity Incentive Plan and the 2011 Employee Stock Purchase Plan of Sunesis Pharmaceuticals, Inc.,
(9) Registration Statement (Form S-8 No. 333-210183) and Registration Statement (Form S-8 No 333-223632) pertaining to the 2011 Equity Incentive Plan of Sunesis Pharmaceuticals, Inc., and
(10) Registration Statement (Form S-8 No. 333-217849) pertaining to the 2011 Equity Incentive Plan and the 2011 Employee Stock Purchase Plan of Sunesis Pharmaceuticals, Inc.

of our report dated March 7, 2019, with respect to the consolidated financial statements of Sunesis Pharmaceuticals, Inc., included in this Annual Report (Form 10-K) for the year ended December 31, 2018.

/s/ ERNST & YOUNG LLP

San Jose, California
March 7, 2019

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER

I, Dayton Misfeldt certify that:

1. I have reviewed this annual report on Form 10-K of Sunesis Pharmaceuticals, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

   c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 7, 2019

/ s/ DAYTON MISFELDT
Dayton Misfeldt
Interim Chief Executive Officer

Exhibit 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER

I, William P. Quinn, certify that:

1. I have reviewed this annual report on Form 10-K of Sunesis Pharmaceuticals, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

   c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 7, 2019

/s/ WILLIAM P. QUINN
William P. Quinn
Senior Vice President, Finance and Corporate Development,
Chief Financial Officer

Exhibit 32.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), Dayton Misfeldt, Interim Chief Executive Officer and William P. Quinn, Senior Vice President, Finance and Corporate Development and Chief Financial Officer, of Sunesis Pharmaceuticals, Inc. (the "Company"), each hereby certifies that, to the best of his knowledge:

1. The Company's Annual Report on Form 10-K for the period ended December 31, 2018 (the "Annual Report"), to which this Certification is attached as Exhibit 32.1, fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and

2. The information contained in the Annual Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 7, 2019

/s/ DAYTON MISFELDT
Dayton Misfeldt
Interim Chief Executive Officer

Date: March 7, 2019

/s/ WILLIAM P. QUINN
William P. Quinn
Senior Vice President, Finance and Corporate Development,
Chief Financial Officer

This certification accompanies the Form 10-K to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Sunesis Pharmaceuticals, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-K), irrespective of any general incorporation language contained in such filing.