

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

**FORM S-8**  
**REGISTRATION STATEMENT**

*Under*  
**THE SECURITIES ACT OF 1933**

**Sunesis Pharmaceuticals, Inc.**

(Exact name of registrant as specified in its charter)

**Delaware**  
 (State or other jurisdiction of  
 incorporation or organization)

**94-3295878**  
 (I.R.S. Employer  
 Identification No.)

**395 Oyster Point Boulevard, Suite 400**  
**South San Francisco, CA 94080**  
 (Address of principal executive offices)

**2011 Equity Incentive Plan**  
 (Full title of the plan)

**William P. Quinn**

**Chief Financial Officer, Senior Vice President, Finance and Corporate Development**

**395 Oyster Point Boulevard, Suite 400**  
**South San Francisco, CA 94080**  
**(650) 266-3500**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

*Copy to:*

**Mehdi Khodadad**

**Cooley LLP**

**3175 Hanover Street**

**Palo Alto, California 94304-1130**

**Telephone: (650) 843-5000**

**Fax: (650) 849-7400**

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the 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  (Do not check if a smaller reporting company) 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 7(a)(2)(B) of the Securities Act.

**CALCULATION OF REGISTRATION FEE**

Title of each Class of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Share(2)	Proposed Maximum Aggregate Offering Price(2)	Amount of Registration Fee
2011 Equity Incentive Plan, Common Stock, par value \$0.0001 per share	1,371,308 shares	\$4.13	\$5,663,502.04	\$705.11

- (1) Pursuant to Rule 416(a) of the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement shall also cover any additional shares of the registrant's common stock that become issuable under the 2011 Equity Incentive Plan set forth herein by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without receipt of consideration that increases the number of outstanding shares of the registrant's common stock. In addition, pursuant to Rule 416(c) under the Securities Act, this Registration Statement also covers an indeterminate amount of interests to be offered or sold pursuant to the employee and non-employee benefit plans described herein.
- (2) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(h) and Rule 457(c) promulgated under the Securities Act. The offering price per share and the aggregate offering price are based upon the average of the high and low prices of the registrant's common stock as reported on the Nasdaq Stock Market on March 12, 2018, in accordance with Rule 457(c) of the Securities Act.

**EXPLANATORY NOTE**

The Registration Statement is being filed for the purpose of increasing the number of securities of the same class as other securities for which Registration Statements on Form S-8 of the Registrant relating to the same employee and non-employee benefit plans set forth herein are effective.

**INCORPORATION BY REFERENCE OF CONTENTS OF  
REGISTRATION STATEMENT ON FORM S-8**

This Registration Statement on Form S-8 is filed by Sunesis Pharmaceuticals, Inc., a Delaware corporation (“Registrant”), relating to 1,371,308 shares of its Common Stock issuable to eligible employees, directors and consultants of Registrant and its affiliates under the 2011 Equity Incentive Plan (the “2011 Plan”). Registrant’s Forms S-8 Registration Statements filed with the U.S. Securities and Exchange Commission on June 6, 2011 (File No. 333-174732), March 14, 2012 (File No. 333-180101), March 13, 2013 (File No. 333-187234), May 7, 2014 (File No. 333-195781), March 12, 2015 (File No. 333-202696), March 14, 2016 (File No. 333-210183) and May 10, 2017 (File No. 333-217849) relating to the 2011 Plan are each incorporated by reference herein.

**EXHIBITS**

Exhibit Number	Exhibit Description	Incorporated By Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
3.1	<a href="#">Amended and Restated Certificate of Incorporation of the Registrant</a>	10-K/A	000-51531	3.1	5/23/2007	
3.2	<a href="#">Amended and Restated Bylaws of the Registrant</a>	8-K	000-51531	3.2	12/11/2007	
3.3	<a href="#">Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Registrant</a>	S-8	333-160528	3.4	7/10/2009	
3.4	<a href="#">Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Registrant</a>	8-K	000-51531	3.1	2/14/2011	
3.5	<a href="#">Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Registrant</a>	8-K	000-51531	3.1	9/7/2016	
3.6	<a href="#">Certificate of Designation of Series B Convertible Preferred Stock</a>	8-K	000-51531	3.1	12/16/2015	
3.7	<a href="#">Certificate of Designation of Series C Convertible Preferred Stock</a>	8-K	000-51531	3.1	10/19/2016	
3.8	<a href="#">Certificate of Designation of Series D Convertible Preferred Stock</a>	8-K	000-51531	3.1	10/26/2017	
4.1	Reference is made to Exhibits <a href="#">3.1</a> , <a href="#">3.2</a> , <a href="#">3.3</a> , <a href="#">3.4</a> , <a href="#">3.5</a> , <a href="#">3.6</a> , <a href="#">3.7</a> , and <a href="#">3.8</a> above					
4.2	<a href="#">Specimen Common Stock Certificate of the Registrant</a>	10-K	000-51531	4.2	3/29/2011	
5.1	<a href="#">Opinion of Cooley LLP.</a>					X
23.1	<a href="#">Consent of Independent Registered Public Accounting Firm</a>					X
23.2	<a href="#">Consent of Cooley LLP (included in Exhibit 5.1)</a>					
24.1	<a href="#">Power of Attorney (included on signature page)</a>					
99.1	<a href="#">2011 Equity Incentive Plan, as amended</a>	DEF 14A	000-51531	Appendix A	4/20/2017	





Mehdi Khodadad  
T: +1 650 843 5005  
mkhodadad@cooley.com

March 13, 2018

Sunesis Pharmaceuticals, Inc.  
395 Oyster Point Boulevard, Suite 400  
South San Francisco, CA 94080

Ladies and Gentlemen:

We have acted as counsel to Sunesis Pharmaceuticals, Inc., a Delaware corporation (the "**Company**"), in connection with the filing by the Company of a registration statement on Form S-8 (the "**Registration Statement**") with the Securities and Exchange Commission covering the offering of up to an aggregate of 1,371,308 shares of the Company's common stock, par value \$0.0001 per share (the "**Shares**"), issuable pursuant to the Company's 2011 Equity Incentive Plan (the "**Plan**").

In connection with this opinion, we have examined and relied upon (a) the Registration Statement and related prospectuses, (b) the Plan, (c) the Company's Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws, each as currently in effect, and (d) such other documents, records, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. We have assumed the genuineness and authenticity of all documents submitted to us as originals, and the conformity to originals of all documents submitted to us as copies thereof. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not sought independently to verify such matters.

Our opinion is expressed only with respect to the General Corporation Law of the State of Delaware. We express no opinion to the extent that any other laws are applicable to the subject matter hereof and provide no assurance as to compliance with any federal or state securities law, rule or regulation.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares, when sold and issued in accordance with the Plan, respectively, and the Registration Statement and related prospectuses, will be validly issued, fully paid, and nonassessable (except as to shares issued pursuant to certain deferred payment arrangements, which will be fully paid and nonassessable when such deferred payments are made in full).

We consent to the filing of this opinion as an exhibit to the Registration Statement.

Very truly yours,

**Cooley LLP**

By: /s/ Mehdi Khodadad  
Mehdi Khodadad

**Consent of Independent Registered Public Accounting Firm**

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the 2011 Equity Incentive Plan of Sunesis Pharmaceuticals, Inc., of our report dated March 9, 2018 with respect to the consolidated financial statements of Sunesis Pharmaceuticals, Inc. included in its Annual Report (Form 10-K), for the year ended December 31, 2017, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

San Jose, California  
March 9, 2018