



DIVISION OF  
CORPORATION FINANCE

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

August 17, 2018

Aiofe M. Brennan  
Interim President and Chief Executive Officer  
Synlogic, Inc.  
301 Binney St., Suite 402  
Cambridge, Massachusetts 02142

**Re: Synlogic, Inc.**  
**Registration Statement on Form S-3**  
**Filed August 9, 2018**  
**File No. 333-226730**

Dear Dr. Brennan:

We have limited our review of your registration statement to those issues we have addressed in our comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Registration Statement on Form S-3 filed August 9, 2018

Description of Purchase Contracts, page 22

1. We note your disclosure that you may issue purchase contracts for the purchase or sale of securities that may consist of securities of third parties. Please advise us how you anticipate conducting such offerings under the registration and disclosure requirements of the Securities Act. For example, please advise us of the disclosure you will provide in the applicable prospectus supplement or other offering materials, including, as necessary, any required financial statement and non-financial statement disclosure about the issuer of such securities. For guidance, please refer to the Morgan

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Stanley & Co., Inc. no action letter (June 24, 1996) and Securities Act Sections Compliance and Disclosure Interpretation 203.03.

2. It is not clear how the purchase contracts you propose to issue should be characterized for purposes of the federal securities laws. For example, the disclosure in the filing indicates that these contracts obligate you to purchase from holders, and obligate holders to sell to you, securities at a purchase price that may be fixed or may be determined by a specific formula. The disclosure in the filing also indicates that these contracts may require you to make periodic payments to the holders or for holders to make periodic payments to you. Furthermore, the disclosure indicates that you may purchase contracts separately or as part of units each consisting of a purchase contract and one or more securities, including U.S. Treasury securities. Finally, the disclosure in the filing indicates that these contracts may require the holders of the contracts to secure their obligations in a specified manner. Based on this disclosure it appears that these contracts may have characteristics associated with forwards, options and security-based swaps. Please provide us with your legal analysis as to how these contracts should be appropriately characterized under the federal securities laws.
3. We note the reference to "other property" that may be included in the purchase contracts. Please revise your disclosure to specify what other property may be included in the purchase contracts.

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Please contact Irene Paik at 202-551-6553 or Mary Beth Breslin at 202-551-3625 with any questions.

Sincerely,

Division of Corporation Finance  
Office of Healthcare & Insurance

cc: Matthew J. Gardella, Esq.