

**Synlogic, Inc.**  
**200 Sidney Street, Suite 320**  
**Cambridge, Massachusetts 02139**

October 23, 2017

**VIA EDGAR**

United States Securities and Exchange Commission  
Division of Corporation Finance  
100 F Street, N.E.  
Washington, D.C. 20549

**RE: Synlogic, Inc.**  
**Registration Statement on Form S-3**  
**File No. 333-220948**  
**Acceleration Request**

Ladies and Gentlemen:

With respect to the above-referenced Registration Statement on Form S-3 (the "Registration Statement"), and pursuant to Rule 461 of Regulation C promulgated under the Securities Act of 1933, as amended, the undersigned hereby respectfully requests, on behalf of Synlogic, Inc. (the "Company"), that the Securities and Exchange Commission accelerate the effective date of the Registration Statement to Wednesday October 25, 2017, at 4:00 p.m. Eastern Time, or as soon as practicable thereafter.

The cooperation of the staff in meeting the timetable described above is very much appreciated.

Please call Matthew J. Gardella of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., counsel to the Company, at (617) 542-6000, with any comments or questions regarding the Registration Statement.

Very truly yours,  
SYNLOGIC, INC.

/s/ Todd Shegog  
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Todd Shegog  
Chief Financial Officer

cc: Christine Westbrook, *Securities and Exchange Commission*  
Jose Carlos Gutierrez-Ramos., *President and Chief Executive Officer, Synlogic, Inc.*  
Matthew J. Gardella, Esq., *Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.*  
Lewis J. Geffen, Esq., *Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.*