

SYNOLOGIC, INC.
301 Binney Street, Suite 402
Cambridge, Massachusetts 02142

August 28, 2018

VIA EDGAR

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

Attention: Ms. Mary Beth Breslin
Ms. Irene Paik

Re: Synlogic, Inc.
Registration Statement on Form S-3
Filed August 9, 2018, as amended on August 23, 2018
File No. 333-226730 (the "Registration Statement")
Acceleration Request

Ladies and Gentlemen:

In accordance with Rule 461 of Regulation C promulgated under the Securities Act of 1933, as amended, Synlogic, Inc. (the "Registrant") hereby respectfully requests that the Securities and Exchange Commission accelerate the effective date of the above-referenced Registration Statement to Thursday, August 30, 2018, at 4:00 p.m., Eastern Time, or as soon as thereafter practicable.

The Registrant hereby authorizes Matthew J. Gardella of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., counsel to the Registrant, to orally modify or withdraw this request for acceleration on its behalf. The Registrant hereby acknowledges its responsibilities under the Securities Act of 1933, as amended, and the Securities Exchange Act of 1934, as amended, as they relate to the proposed public offering of the securities specified in the Registration Statement.

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

Please contact Matthew J. Gardella of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. at (617) 348-1735 with any questions regarding this request.

Very truly yours,

SYNOLOGIC, INC.

/s/ Aoife M. Brennan

Aoife M. Brennan

Interim President, Chief Executive Officer and Chief
Medical Officer

cc: Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
Matthew J. Gardella, Esq.