synlogic

September 20, 2023

CONFIDENTIAL – VIA EDGAR

United States Securities and Exchange Commission Division of Corporate Finance Office of Life Sciences 100 F Street, N.E. Washington, D.C. 20549 Attn: Vanessa Robertson Daniel Gordon

Re: Synlogic, Inc. Form 10-K for the fiscal year ended December 31, 2022 Filed March 29, 2023 File No. 001-37566

Ladies and Gentlemen:

On behalf of Synlogic, Inc. (the "Company" or "Synlogic"), please find this letter in response to the comment letter, dated September 11, 2023, of the staff of the Division of Corporation Finance (the "Staff") in reference to the Company's Annual Report on Form 10-K filed on March 29, 2023.

In order to facilitate the Staff's review, we have repeated the comment in its entirety in italicized text followed by the Company's response.

Form 10-K for the fiscal year ended December 31, 2022

Management's Discussion and Analysis of Financial Condition and Results of Operations Financial Overview Research and Development Expense, page 83

Annual Report on Form 10-K

<u>General</u>

1. Please revise your future filings to break out the amounts incurred for internal research and development expenses by nature or type of expense (i.e. employee related expenses) for each period presented.

<u>Response</u>: The Company acknowledges the Staff's letter and confirms that it will revise its future filings to break out the amounts incurred for internal research and development expenses by nature or type of expense (i.e. employee related expenses) for each period presented.

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synlogic

If you have any questions or comments in connection with this letter please contact the undersigned by phone at (978) 269-7662 or via e-mail at Michael.jensen@synlogictx.com.

Sincerely,

/s/ Michael Jensen Michael Jensen Chief Financial Officer

cc: Daniel Bagliebter, Esq., Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. Nishant Dharia, Esq., Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

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