

Form 5500 Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Annual Return/Report of Employee Benefit Plan This form is required to be filed for employee benefit plans under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code). ▶ Complete all entries in accordance with the instructions to the Form 5500.	OMB Nos. 1210-0110 1210-0089 2022 This Form is Open to Public Inspection
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Part I	Annual Report Identification Information
For calendar plan year 2022 or fiscal plan year beginning <u>01/01/2022</u> and ending <u>12/31/2022</u>	
A This return/report is for:	☐ a multiemployer plan ☐ a multiple-employer plan (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.) ☒ a single-employer plan ☐ a DFE (specify) ____
B This return/report is:	☐ the first return/report ☐ the final return/report ☐ an amended return/report ☐ a short plan year return/report (less than 12 months)
C If the plan is a collectively-bargained plan, check here.	☐
D Check box if filing under:	☒ Form 5558 ☐ automatic extension ☐ the DFVC program ☐ special extension (enter description)
E If this is a retroactively adopted plan permitted by SECURE Act section 201, check here.	☐

Part II Basic Plan Information —enter all requested information		
1a Name of plan <u>SYNLOGIC 401(K) PLAN</u>	1b Three-digit plan number (PN) ▶	<u>001</u>
2a Plan sponsor's name (employer, if for a single-employer plan) Mailing address (include room, apt., suite no. and street, or P.O. Box) City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions) <u>SYNLOGIC OPERATING COMPANY, INC.</u> <u>301 BINNEY ST</u> <u>#402</u> <u>CAMBRIDGE, MA 02142</u>		
1c Effective date of plan <u>04/17/2014</u>		
2b Employer Identification Number (EIN) <u>46-5311566</u>		
2c Plan Sponsor's telephone number <u>857-998-0277</u>		
2d Business code (see instructions) <u>541990</u>		

Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established.

Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including accompanying schedules, statements and attachments, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.

SIGN HERE	Filed with authorized/valid electronic signature.	10/06/2023	ADAM THOMAS
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator
SIGN HERE			
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor
SIGN HERE			
	Signature of DFE	Date	Enter name of individual signing as DFE

For Paperwork Reduction Act Notice, see the Instructions for Form 5500.

Form 5500 (2022)
v. 220413

3a Plan administrator's name and address ☒ Same as Plan Sponsor		3b Administrator's EIN
		3c Administrator's telephone number
4 If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report: a Sponsor's name c Plan Name		4b EIN 4d PN
5 Total number of participants at the beginning of the plan year		5 126
6 Number of participants as of the end of the plan year unless otherwise stated (welfare plans complete only lines 6a(1) , 6a(2) , 6b , 6c , and 6d).		
a(1) Total number of active participants at the beginning of the plan year		6a(1) 85
a(2) Total number of active participants at the end of the plan year		6a(2) 71
b Retired or separated participants receiving benefits		6b 0
c Other retired or separated participants entitled to future benefits.....		6c 39
d Subtotal. Add lines 6a(2) , 6b , and 6c		6d 110
e Deceased participants whose beneficiaries are receiving or are entitled to receive benefits.		6e 0
f Total. Add lines 6d and 6e		6f 110
g Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item).....		6g 109
h Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested.....		6h 0
7 Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item)		7
8a If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristics Codes in the instructions: 2E 2F 2G 2J 2K 2S 2T 3D		
b If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristics Codes in the instructions:		
9a Plan funding arrangement (check all that apply) (1) ☐ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor	9b Plan benefit arrangement (check all that apply) (1) ☐ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor	
10 Check all applicable boxes in 10a and 10b to indicate which schedules are attached, and, where indicated, enter the number attached. (See instructions)		
a Pension Schedules (1) ☒ R (Retirement Plan Information) (2) ☐ MB (Multiemployer Defined Benefit Plan and Certain Money Purchase Plan Actuarial Information) - signed by the plan actuary (3) ☐ SB (Single-Employer Defined Benefit Plan Actuarial Information) - signed by the plan actuary	b General Schedules (1) ☒ H (Financial Information) (2) ☐ I (Financial Information – Small Plan) (3) ☐ 0 A (Insurance Information) (4) ☒ C (Service Provider Information) (5) ☐ D (DFE/Participating Plan Information) (6) ☐ G (Financial Transaction Schedules)	

Part III Form M-1 Compliance Information (to be completed by welfare benefit plans)

11a If the plan provides welfare benefits, was the plan subject to the Form M-1 filing requirements during the plan year? (See instructions and 29 CFR 2520.101-2.) ☐ Yes ☐ No

If "Yes" is checked, complete lines 11b and 11c.

11b Is the plan currently in compliance with the Form M-1 filing requirements? (See instructions and 29 CFR 2520.101-2.) ☐ Yes ☐ No

11c Enter the Receipt Confirmation Code for the 2022 Form M-1 annual report. If the plan was not required to file the 2022 Form M-1 annual report, enter the Receipt Confirmation Code for the most recent Form M-1 that was required to be filed under the Form M-1 filing requirements. (Failure to enter a valid Receipt Confirmation Code will subject the Form 5500 filing to rejection as incomplete.)

Receipt Confirmation Code _____

SCHEDULE C (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Service Provider Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA). ▶ File as an attachment to Form 5500.	OMB No. 1210-0110
		2022
		This Form is Open to Public Inspection.

For calendar plan year 2022 or fiscal plan year beginning 01/01/2022 and ending 12/31/2022		
A Name of plan SYNLOGIC 401(K) PLAN	B Three-digit plan number (PN) ▶	001
C Plan sponsor's name as shown on line 2a of Form 5500 SYNLOGIC OPERATING COMPANY, INC.	D Employer Identification Number (EIN) 46-5311566	

Part I	Service Provider Information (see instructions)
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You must complete this Part, in accordance with the instructions, to report the information required for **each person** who received, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of monetary value) in connection with services rendered to the plan or the person's position with the plan during the plan year. If a person received **only** eligible indirect compensation for which the plan received the required disclosures, you are required to answer line 1 but are not required to include that person when completing the remainder of this Part.

1 Information on Persons Receiving Only Eligible Indirect Compensation

- a Check "Yes" or "No" to indicate whether you are excluding a person from the remainder of this Part because they received only eligible indirect compensation for which the plan received the required disclosures (see instructions for definitions and conditions)..... ☒ Yes ☐ No
- b If you answered line 1a "Yes," enter the name and EIN or address of each person providing the required disclosures for the service providers who received only eligible indirect compensation. Complete as many entries as needed (see instructions).

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL
04-2647786

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation
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2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

FIDELITY INVESTMENTS INSTITUTIONAL

04-2647786

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
37 60 64 65	RECORDKEEPER	11570	Yes ☒ No ☐	Yes ☒ No ☐	0	Yes ☒ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received \$1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
AS SPL MD CP VAL ADM - DST ASSET M 52-2269240	0.35%	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
AS SPL SM CP VAL ADM - DST ASSET M 430 W 7TH STREET STE 219432 KANSAS CITY, MO 64105	0.35%	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
COLUMBIA DIV INC A - COLUMBIA MGT PO BOX 219104 KANSAS CITY, MO 64121-9104	0.50%	

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received \$1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
GS INFL-PRO SECS INV - GOLDMAN SAC 13-5108880	0.25%	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
JHANCOCK BOND R4 - JOHN HANCOCK SI 01-0233346	0.25%	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
MFS MID CAP GRTH R3 - MFS SERVICE 04-2865649	0.50%	

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received \$1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
PIF SMALL CAP R4 - PRINCIPAL SHARE 711 HIGH STREET DES MOINES, IA 50392	0.35%	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	

Part II Service Providers Who Fail or Refuse to Provide Information

4 Provide, to the extent possible, the following information for each service provider who failed or refused to provide the information necessary to complete this Schedule.

(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide

Part III Termination Information on Accountants and Enrolled Actuaries (see instructions)
(complete as many entries as needed)

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

SCHEDULE H (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Financial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA), and section 6058(a) of the Internal Revenue Code (the Code). ► File as an attachment to Form 5500.	OMB No. 1210-0110 2022 This Form is Open to Public Inspection
For calendar plan year 2022 or fiscal plan year beginning <u>01/01/2022</u> and ending <u>12/31/2022</u>		
A Name of plan <u>SYNLOGIC 401(K) PLAN</u>	B Three-digit plan number (PN) ►	<u>001</u>
C Plan sponsor's name as shown on line 2a of Form 5500 <u>SYNLOGIC OPERATING COMPANY, INC.</u>	D Employer Identification Number (EIN) <u>46-5311566</u>	

Part I	Asset and Liability Statement		
1 Current value of plan assets and liabilities at the beginning and end of the plan year. Combine the value of plan assets held in more than one trust. Report the value of the plan's interest in a commingled fund containing the assets of more than one plan on a line-by-line basis unless the value is reportable on lines 1c(9) through 1c(14). Do not enter the value of that portion of an insurance contract which guarantees, during this plan year, to pay a specific dollar benefit at a future date. Round off amounts to the nearest dollar. MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 1b(1), 1b(2), 1c(8), 1g, 1h, and 1i. CCTs, PSAs, and 103-12 IEs also do not complete lines 1d and 1e. See instructions.			
Assets		(a) Beginning of Year	(b) End of Year
a Total noninterest-bearing cash.....	1a	0	0
b Receivables (less allowance for doubtful accounts):			
(1) Employer contributions.....	1b(1)	0	0
(2) Participant contributions.....	1b(2)	0	0
(3) Other.....	1b(3)	0	0
c General investments:			
(1) Interest-bearing cash (include money market accounts & certificates of deposit).....	1c(1)	11483	13270
(2) U.S. Government securities	1c(2)	0	0
(3) Corporate debt instruments (other than employer securities):			
(A) Preferred	1c(3)(A)	0	0
(B) All other	1c(3)(B)	0	0
(4) Corporate stocks (other than employer securities):			
(A) Preferred	1c(4)(A)	0	0
(B) Common.....	1c(4)(B)	0	0
(5) Partnership/joint venture interests	1c(5)	0	0
(6) Real estate (other than employer real property)	1c(6)	0	0
(7) Loans (other than to participants).....	1c(7)	0	0
(8) Participant loans.....	1c(8)	14731	29681
(9) Value of interest in common/collective trusts.....	1c(9)	0	0
(10) Value of interest in pooled separate accounts	1c(10)	0	0
(11) Value of interest in master trust investment accounts.....	1c(11)	0	0
(12) Value of interest in 103-12 investment entities	1c(12)	0	0
(13) Value of interest in registered investment companies (e.g., mutual funds).....	1c(13)	6378584	6274135
(14) Value of funds held in insurance company general account (unallocated contracts).....	1c(14)	0	0
(15) Other	1c(15)	0	0

1d Employer-related investments:		(a) Beginning of Year	(b) End of Year
(1) Employer securities	1d(1)	0	0
(2) Employer real property	1d(2)	0	0
e Buildings and other property used in plan operation	1e	0	0
f Total assets (add all amounts in lines 1a through 1e)	1f	6404798	6317086

Liabilities

g Benefit claims payable	1g	0	0
h Operating payables	1h	0	0
i Acquisition indebtedness	1i	0	0
j Other liabilities	1j	0	0
k Total liabilities (add all amounts in lines 1g through 1j)	1k	0	0

Net Assets

l Net assets (subtract line 1k from line 1f)	1l	6404798	6317086
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Part II Income and Expense Statement

2 Plan income, expenses, and changes in net assets for the year. Include all income and expenses of the plan, including any trust(s) or separately maintained fund(s) and any payments/receipts to/from insurance carriers. Round off amounts to the nearest dollar. MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 2a, 2b(1)(E), 2e, 2f, and 2g.

Income

a Contributions:			
(1) Received or receivable in cash from: (A) Employers.....	2a(1)(A)	433627	
(B) Participants.....	2a(1)(B)	1243607	
(C) Others (including rollovers).....	2a(1)(C)	97979	
(2) Noncash contributions.....	2a(2)	0	1775213
(3) Total contributions. Add lines 2a(1)(A) , (B) , (C) , and line 2a(2)	2a(3)		
b Earnings on investments:			
(1) Interest:			
(A) Interest-bearing cash (including money market accounts and certificates of deposit).....	2b(1)(A)	176	
(B) U.S. Government securities.....	2b(1)(B)	0	
(C) Corporate debt instruments.....	2b(1)(C)	0	
(D) Loans (other than to participants).....	2b(1)(D)	0	
(E) Participant loans.....	2b(1)(E)	680	
(F) Other.....	2b(1)(F)	0	
(G) Total interest. Add lines 2b(1)(A) through (F)	2b(1)(G)		856
(2) Dividends: (A) Preferred stock.....	2b(2)(A)	0	
(B) Common stock.....	2b(2)(B)	0	
(C) Registered investment company shares (e.g. mutual funds).....	2b(2)(C)	456402	
(D) Total dividends. Add lines 2b(2)(A) , (B) , and (C)	2b(2)(D)		456402
(3) Rents.....	2b(3)		0
(4) Net gain (loss) on sale of assets: (A) Aggregate proceeds.....	2b(4)(A)	0	
(B) Aggregate carrying amount (see instructions).....	2b(4)(B)	0	
(C) Subtract line 2b(4)(B) from line 2b(4)(A) and enter result.....	2b(4)(C)		
(5) Unrealized appreciation (depreciation) of assets: (A) Real estate.....	2b(5)(A)	0	
(B) Other.....	2b(5)(B)	0	
(C) Total unrealized appreciation of assets. Add lines 2b(5)(A) and (B)	2b(5)(C)		

		(a) Amount	(b) Total
(6) Net investment gain (loss) from common/collective trusts	2b(6)		0
(7) Net investment gain (loss) from pooled separate accounts	2b(7)		0
(8) Net investment gain (loss) from master trust investment accounts	2b(8)		0
(9) Net investment gain (loss) from 103-12 investment entities.....	2b(9)		0
(10) Net investment gain (loss) from registered investment companies (e.g., mutual funds)	2b(10)		-1751866
c Other income	2c		0
d Total income. Add all income amounts in column (b) and enter total	2d		480605
Expenses			
e Benefit payment and payments to provide benefits:			
(1) Directly to participants or beneficiaries, including direct rollovers	2e(1)	555480	
(2) To insurance carriers for the provision of benefits	2e(2)	0	
(3) Other	2e(3)	0	
(4) Total benefit payments. Add lines 2e(1) through (3)	2e(4)		555480
f Corrective distributions (see instructions)	2f		0
g Certain deemed distributions of participant loans (see instructions)	2g		0
h Interest expense	2h		0
i Administrative expenses: (1) Professional fees	2i(1)	0	
(2) Contract administrator fees	2i(2)	0	
(3) Investment advisory and management fees	2i(3)	1267	
(4) Other	2i(4)	11570	
(5) Total administrative expenses. Add lines 2i(1) through (4)	2i(5)		12837
j Total expenses. Add all expense amounts in column (b) and enter total	2j		568317
Net Income and Reconciliation			
k Net income (loss). Subtract line 2j from line 2d	2k		-87712
l Transfers of assets:			
(1) To this plan	2l(1)		0
(2) From this plan	2l(2)		0

Part III Accountant's Opinion

3 Complete lines 3a through 3c if the opinion of an independent qualified public accountant is attached to this Form 5500. Complete line 3d if an opinion is not attached.

a The attached opinion of an independent qualified public accountant for this plan is (see instructions):

(1) ☒ Unmodified (2) ☐ Qualified (3) ☐ Disclaimer (4) ☐ Adverse

b Check the appropriate box(es) to indicate whether the IQPA performed an ERISA section 103(a)(3)(C) audit. Check both boxes (1) and (2) if the audit was performed pursuant to both 29 CFR 2520.103-8 and 29 CFR 2520.103-12(d). Check box (3) if pursuant to neither.

(1) ☒ DOL Regulation 2520.103-8 (2) ☐ DOL Regulation 2520.103-12(d) (3) ☐ neither DOL Regulation 2520.103-8 nor DOL Regulation 2520.103-12(d).

c Enter the name and EIN of the accountant (or accounting firm) below:

(1) Name: TAWNEY, PLLC

(2) EIN: 46-4585449

d The opinion of an independent qualified public accountant is **not attached** because:

(1) ☐ This form is filed for a CCT, PSA, or MTIA. (2) ☐ It will be attached to the next Form 5500 pursuant to 29 CFR 2520.104-50.

Part IV Compliance Questions

4 CCTs and PSAs do not complete Part IV. MTIAs, 103-12 IEs, and GIAs do not complete lines 4a, 4e, 4f, 4g, 4h, 4k, 4m, 4n, or 5. 103-12 IEs also do not complete lines 4j and 4l. MTIAs also do not complete line 4l.

During the plan year:

a Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? Continue to answer "Yes" for any prior year failures until fully corrected. (See instructions and DOL's Voluntary Fiduciary Correction Program.)

	Yes	No	Amount
4a		X	

	Yes	No	Amount
b Were any loans by the plan or fixed income obligations due the plan in default as of the close of the plan year or classified during the year as uncollectible? Disregard participant loans secured by participant's account balance. (Attach Schedule G (Form 5500) Part I if "Yes" is checked.)		X	
4b		X	
c Were any leases to which the plan was a party in default or classified during the year as uncollectible? (Attach Schedule G (Form 5500) Part II if "Yes" is checked.)		X	
4c		X	
d Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 4a. Attach Schedule G (Form 5500) Part III if "Yes" is checked.)		X	
4d		X	
e Was this plan covered by a fidelity bond?	X		2000000
4e	X		2000000
f Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?		X	
4f		X	
g Did the plan hold any assets whose current value was neither readily determinable on an established market nor set by an independent third party appraiser?		X	
4g		X	
h Did the plan receive any noncash contributions whose value was neither readily determinable on an established market nor set by an independent third party appraiser?		X	
4h		X	
i Did the plan have assets held for investment? (Attach schedule(s) of assets if "Yes" is checked, and see instructions for format requirements.)	X		
4i	X		
j Were any plan transactions or series of transactions in excess of 5% of the current value of plan assets? (Attach schedule of transactions if "Yes" is checked and see instructions for format requirements.)		X	
4j		X	
k Were all the plan assets either distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?		X	
4k		X	
l Has the plan failed to provide any benefit when due under the plan?		X	
4l		X	
m If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)		X	
4m		X	
n If 4m was answered "Yes," check the "Yes" box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3.		X	
4n		X	

5a Has a resolution to terminate the plan been adopted during the plan year or any prior plan year? ☐ Yes ☒ No
If "Yes," enter the amount of any plan assets that reverted to the employer this year _____.

5b If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) to which assets or liabilities were transferred. (See instructions.)

5b(1) Name of plan(s)	5b(2) EIN(s)	5b(3) PN(s)

5c Was the plan a defined benefit plan covered under the PBGC insurance program at any time during this plan year? (See ERISA section 4021 and instructions.) ☐ Yes ☐ No ☐ Not determined

If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year _____.

SCHEDULE R (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Retirement Plan Information This schedule is required to be filed under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6058(a) of the Internal Revenue Code (the Code). ► File as an attachment to Form 5500.	OMB No. 1210-0110 2022 This Form is Open to Public Inspection.
For calendar plan year 2022 or fiscal plan year beginning 01/01/2022 and ending 12/31/2022		
A Name of plan SYNLOGIC 401(K) PLAN		B Three-digit plan number (PN) ► 001
C Plan sponsor's name as shown on line 2a of Form 5500 SYNLOGIC OPERATING COMPANY, INC.		D Employer Identification Number (EIN) 46-5311566
Part I	Distributions	
All references to distributions relate only to payments of benefits during the plan year.		
1 Total value of distributions paid in property other than in cash or the forms of property specified in the instructions.....		1
2 Enter the EIN(s) of payor(s) who paid benefits on behalf of the plan to participants or beneficiaries during the year (if more than two, enter EINs of the two payors who paid the greatest dollar amounts of benefits): EIN(s): 04-6568107		
Profit-sharing plans, ESOPs, and stock bonus plans, skip line 3.		
3 Number of participants (living or deceased) whose benefits were distributed in a single sum, during the plan year.....		3
Part II	Funding Information (If the plan is not subject to the minimum funding requirements of section 412 of the Internal Revenue Code or ERISA section 302, skip this Part.)	
4 Is the plan administrator making an election under Code section 412(d)(2) or ERISA section 302(d)(2)? ☐ Yes ☐ No ☐ N/A If the plan is a defined benefit plan, go to line 8.		
5 If a waiver of the minimum funding standard for a prior year is being amortized in this plan year, see instructions and enter the date of the ruling letter granting the waiver. Date: Month _____ Day _____ Year _____ If you completed line 5, complete lines 3, 9, and 10 of Schedule MB and do not complete the remainder of this schedule.		
6 a Enter the minimum required contribution for this plan year (include any prior year accumulated funding deficiency not waived).....		6a
b Enter the amount contributed by the employer to the plan for this plan year.....		6b
c Subtract the amount in line 6b from the amount in line 6a. Enter the result (enter a minus sign to the left of a negative amount).....		6c
If you completed line 6c, skip lines 8 and 9.		
7 Will the minimum funding amount reported on line 6c be met by the funding deadline? ☐ Yes ☐ No ☐ N/A		
8 If a change in actuarial cost method was made for this plan year pursuant to a revenue procedure or other authority providing automatic approval for the change or a class ruling letter, does the plan sponsor or plan administrator agree with the change? ☐ Yes ☐ No ☐ N/A		
Part III	Amendments	
9 If this is a defined benefit pension plan, were any amendments adopted during this plan year that increased or decreased the value of benefits? If yes, check the appropriate box. If no, check the "No" box..... ☐ Increase ☐ Decrease ☐ Both ☐ No		
Part IV	ESOPs (see instructions). If this is not a plan described under section 409(a) or 4975(e)(7) of the Internal Revenue Code, skip this Part.	
10 Were unallocated employer securities or proceeds from the sale of unallocated securities used to repay any exempt loan?..... ☐ Yes ☐ No		
11 a Does the ESOP hold any preferred stock?..... ☐ Yes ☐ No		
b If the ESOP has an outstanding exempt loan with the employer as lender, is such loan part of a "back-to-back" loan? (See instructions for definition of "back-to-back" loan.)..... ☐ Yes ☐ No		
12 Does the ESOP hold any stock that is not readily tradable on an established securities market?..... ☐ Yes ☐ No		
For Paperwork Reduction Act Notice, see the Instructions for Form 5500.		
Schedule R (Form 5500) 2022 v. 220413		

Part V Additional Information for Multiemployer Defined Benefit Pension Plans

13 Enter the following information for each employer that (1) contributed more than 5% of total contributions to the plan during the plan year or (2) was one of the top-ten highest contributors (measured in dollars). See instructions. *Complete as many entries as needed to report all applicable employers.*

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

14	Enter the number of deferred vested and retired participants (inactive participants), as of the beginning of the plan year, whose contributing employer is no longer making contributions to the plan for:		
	a The current plan year. Check the box to indicate the counting method used to determine the number of inactive participants: ☐ last contributing employer ☐ alternative ☐ reasonable approximation (see instructions for required attachment).....	14a	
	b The plan year immediately preceding the current plan year. ☐ Check the box if the number reported is a change from what was previously reported (see instructions for required attachment)	14b	
	c The second preceding plan year. ☐ Check the box if the number reported is a change from what was previously reported (see instructions for required attachment)	14c	
15	Enter the ratio of the number of participants under the plan on whose behalf no employer had an obligation to make an employer contribution during the current plan year to:		
	a The corresponding number for the plan year immediately preceding the current plan year.....	15a	
	b The corresponding number for the second preceding plan year.....	15b	
16	Information with respect to any employers who withdrew from the plan during the preceding plan year:		
	a Enter the number of employers who withdrew during the preceding plan year	16a	
	b If line 16a is greater than 0, enter the aggregate amount of withdrawal liability assessed or estimated to be assessed against such withdrawn employers.....	16b	
17	If assets and liabilities from another plan have been transferred to or merged with this plan during the plan year, check box and see instructions regarding supplemental information to be included as an attachment ☐		

Part VI	Additional Information for Single-Employer and Multiemployer Defined Benefit Pension Plans
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18	If any liabilities to participants or their beneficiaries under the plan as of the end of the plan year consist (in whole or in part) of liabilities to such participants and beneficiaries under two or more pension plans as of immediately before such plan year, check box and see instructions regarding supplemental information to be included as an attachment ☐
19	If the total number of participants is 1,000 or more, complete lines (a) through (c) a Enter the percentage of plan assets held as: Stock: _____% Investment-Grade Debt: _____% High-Yield Debt: _____% Real Estate: _____% Other: _____% b Provide the average duration of the combined investment-grade and high-yield debt: ☐ 0-3 years ☐ 3-6 years ☐ 6-9 years ☐ 9-12 years ☐ 12-15 years ☐ 15-18 years ☐ 18-21 years ☐ 21 years or more c What duration measure was used to calculate line 19(b)? ☐ Effective duration ☐ Macaulay duration ☐ Modified duration ☐ Other (specify): _____
20	PBGC missed contribution reporting requirements. If this is a multiemployer plan or a single-employer plan that is not covered by PBGC, skip line 20. a Is the amount of unpaid minimum required contributions for all years from Schedule SB (Form 5500) line 40 greater than zero? ☐ Yes ☐ No b If line 20a is "Yes," has PBGC been notified as required by ERISA sections 4043(c)(5) and/or 303(k)(4)? Check the applicable box: ☐ Yes. ☐ No. Reporting was waived under 29 CFR 4043.25(c)(2) because contributions equal to or exceeding the unpaid minimum required contribution were made by the 30th day after the due date. ☐ No. The 30-day period referenced in 29 CFR 4043.25(c)(2) has not yet ended, and the sponsor intends to make a contribution equal to or exceeding the unpaid minimum required contribution by the 30th day after the due date. ☐ No. Other. Provide explanation _____

SYNLOGIC 401(k) PLAN

Financial Statements and Supplemental Schedule

As of December 31, 2022 and 2021
And For the Year Ended December 31, 2022
With Report of Independent Auditors

Synlogic 401(k) Plan
Financial Statements and Supplemental Schedule
As of December 31, 2022 and 2021
And For the Year Ended December 31, 2022

Contents

Report of Independent Auditors.....	1
Financial Statements	
Statements of Net Assets Available for Benefits.....	5
Statement of Changes in Net Assets Available for Benefits.....	6
Notes to Financial Statements.....	7
Supplemental Schedule	
Schedule H, Line 4i – Schedule of Assets (Held at End of Year).....	16



REPORT OF INDEPENDENT AUDITORS

Retirement Committee and
Participants Synlogic 401(k) Plan

Scope and Nature of the ERISA Section 103(a)(3)(C) Audit

We have performed audits of the financial statements of Synlogic 401(k) Plan, an employee benefit plan subject to the Employee Retirement Income Security Act of 1974 (ERISA), as permitted by ERISA Section 103(a)(3)(C) (ERISA Section 103(a)(3)(C) audit). The financial statements comprise the statement of net assets available for benefits as of December 31, 2022 and 2021, and the related statement of changes in net assets available for benefits for the year ended December 31, 2022, and the related notes to the financial statements.

Management, having determined it is permissible in the circumstances, has elected to have the audits of the financial statements performed in accordance with ERISA Section 103(a)(3)(C) pursuant to 29 CFR 2520.103-8 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA. As permitted by ERISA Section 103(a)(3)(C), our audits need not extend to any statements or information related to assets held for investment of the plan (investment information) by a bank or similar institution or insurance carrier that is regulated, supervised, and subject to periodic examination by a state or federal agency, provided that the statements or information regarding assets so held are prepared and certified to by the bank or similar institution or insurance carrier in accordance with 29 CFR 2520.103-5 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA.

Management has obtained a certification from a qualified institution as of December 31, 2022 and 2021 and for the year ended December 31, 2022, stating that the certified investment information, as described in Note 3 to the financial statements, is complete and accurate.

Opinion

In our opinion, based on our audits and on the procedures performed as described in the Auditor's Responsibilities for the Audit of the Financial Statements section:

- The amounts and disclosures in the accompanying financial statements, other than those agreed to or derived from the certified investment information, are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States of America.
- The information in the accompanying financial statements related to assets held by and certified to by a qualified institution agrees to, or is derived from, in all material respects, the information prepared and certified by an institution that management determined meets the requirements of ERISA Section 103(a)(3)(C).

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of Synlogic 401(k) Plan and to meet our ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our ERISA Section 103(a)(3)(C) audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error. Management's election of the ERISA Section 103(a)(3)(C) audit does not affect management's responsibility for the financial statements. In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about Synlogic 401(k) Plan's ability to continue as a going concern for one year from the date the financial statements are issued.

Management is also responsible for maintaining a current plan instrument, including all plan amendments, administering the plan, and determining that the plan's transactions that are presented and disclosed in the financial statements are in conformity with the plan's provisions, including maintaining sufficient records with respect to each of the participants, to determine the benefits due or which may become due to such participants.

Auditor's Responsibilities for the Audit of the Financial Statements

Except as described in the Scope and Nature of the ERISA Section 103(a)(3)(C) Audit of the Financial Statements section of our report, our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if, there is a substantial likelihood that, individually or in the aggregate, they would influence the judgement made by a reasonable user based on the financial statements.

Auditor's Responsibilities for the Audit of the Financial Statements (continued)

In performing an audit in accordance with GAAS, we:

- Exercise professional judgement and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion the effectiveness of Synlogic 401(k) Plan's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgement, there are conditions or events, considered in the aggregate, that raise substantial doubt about Synlogic 401(k) Plan's ability to continue as a going concern for a reasonable period of time.

Our audits did not extend to the certified investment information, except for obtaining and reading the certification, comparing the certified investment information with the related information presented and disclosed in the financial statements, and reading the disclosures relating to the certified investment information to assess whether they are in accordance with the presentation and disclosure requirements of accounting principles generally accepted in the United States of America.

Accordingly, the objective of an ERISA Section 103(a)(3)(C) audit is not to express an opinion about whether the financial statements as a whole are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States of America.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Other Matters

Supplemental Schedule Required by ERISA

The supplemental Schedule of Assets Held as of December 31, 2022 is presented for the purpose of additional analysis and is not a required part of the financial statements but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA. Such information is the responsibility of management and was derived from and related directly to the underlying accounting and other records used to prepare the financial statements. The information included in the supplemental schedule, other than that agreed to or derived the certified investment information, has been subjected to auditing procedures applied in the audits of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with GAAS. For information included in the supplemental schedule that agreed to or is derived from the certified investment information, we compared such information to the related certified investment information.

Other Matters (continued)

Supplemental Schedule Required by ERISA (continued)

In forming our opinion on the supplemental schedule, we evaluated whether the supplemental schedule, other than information agreed to or derived from the certified investment information, including its form and content, is presented in conformity with the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA.

In our opinion:

- The form and content of the supplemental schedule, other than the information in the supplemental schedule that agreed to or is derived from the certified investment information, is presented, in all material respects, in conformity with the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA.
- The information in the supplemental schedule related to assets held by and certified to by a qualified institution agrees to, or is derived from, in all material respects, the information prepared and certified by an institution that management determined meets the requirements of ERISA Section 103(a)(3)(C).

Tawney, PLLC

Concord, New Hampshire
October 2, 2023

Synlogic 401(k) Plan

Statements of Net Assets Available for Benefits

	December 31,	
	2022	2021
Assets		
Investments, at fair value	\$ 6,287,405	\$ 6,390,067
Receivables:		
Employer contributions receivable	54,292	80,813
Notes receivable from participants	29,681	14,731
Total Receivables	83,973	95,544
Net assets available for benefits	\$ 6,371,378	\$ 6,485,611

See accompanying notes.

Synlogic 401(k) Plan

Statement of Changes in Net Assets Available for Benefits

Year Ended December 31, 2022

Additions to (reductions in) net assets attributed to

Investment income (loss):

Interest and dividends \$ 456,478

Net depreciation in fair value of investments (1,751,864)

Total investment loss, net (1,295,386)

Interest income on notes receivable from participants 680

Contributions:

Participants 1,243,607

Employer 407,105

Rollovers 97,979

Total contributions 1,748,691

Total additions 453,985

Deductions from net assets attributed to

Benefit payments 555,480

Administrative expenses 12,838

Total deductions 568,318

Net decrease (114,333)

Net assets available for benefits at beginning of year 6,485,611

Net assets available for benefits at end of year \$ 6,371,278

See accompanying notes.

Synlogic 401(k) Plan

Notes to Financial Statements December 31, 2022

1. Description of Plan

The following description of the Synlogic 401(k) Plan (the Plan) provides only general information. Synlogic Operating Company, Inc. (the Company) is the Plan Sponsor. Participants should refer to the Plan document and adoption agreement for a more complete description of the Plan's provisions, copies of which may be obtained from the Plan Sponsor.

General

The Plan is a defined contribution plan covering eligible employees of the Company. It is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA), as amended. Fidelity Management Trust Company (Fidelity) serves as the trustee and recordkeeper of the Plan.

Eligibility

Employees of the Company, who are at least eighteen (18) years of age are eligible to participate in the Plan. Temporary employees, co-op students and interns are excluded from participation in the Plan.

Contributions

Participants may contribute, on a pre-tax basis, and/or on an after-tax Roth basis, percentages of their compensation from 1% to 90% of eligible compensation, as defined in the Plan agreement, subject to certain limitations. Employer matching contributions are made at the discretion of the Company's Board of Directors. For the year ended December 31, 2022, the Company matched 50% of the participants' contributions up to a maximum of 6% of eligible compensation. Forfeited employer matching contributions can be used to reduce expenses related to the administration of the Plan or reduce employer contributions. Additionally, the Plan provides for nonelective employer contributions at the Company's discretion. The Company did not make a nonelective employer contribution during 2022.

Additionally, the Plan has an auto-enrollment provision whereby all newly eligible employees are automatically enrolled in the Plan unless they affirmatively elect to not participate in the Plan. Automatically enrolled participants have their deferral rate set at six percent of eligible compensation, as defined in the plan agreement.

Synlogic 401(k) Plan

Notes to Financial Statements (continued)

1. Description of Plan (Continued)

Participants who have attained age 50 before the end of the plan year are eligible to make catch-up contributions. Rollover contributions from pension, profit-sharing plans, and IRA accounts meeting the requirements of Section 401(a) of the Code are accepted by the Plan.

Participants may currently elect to invest their account balances in any combination of mutual funds.

Participants may commence participation following their employment with the Company, and they may change their salary deferral percentage at any time thereafter. All funds are self-directed allowing the participants to change their investment selection at any time.

Participant Accounts

Each participant's account is credited with the participant's contributions and allocations of (a) the Company's contributions and, (b) Plan earnings or losses, and charged with an allocation of administrative expenses. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account. Earnings are allocated based on the participant's share of net earnings or losses of their respective elected investment options.

Rollovers

With the approval of the plan administrator, the Plan may receive any amounts received by an employee as a distribution from another qualified plan, provided that the receipt of such amounts does not adversely affect the qualified tax status of the Plan. Participants are fully vested in these amounts.

Synlogic 401(k) Plan

Notes to Financial Statements (continued)

1. Description of Plan (continued)

Vesting

Participants are immediately vested in their voluntary contributions and matching employer contributions.

Notes Receivable from Participants

Participants may borrow up to the lesser of \$50,000 or 50% of the vested portion of their account balances, subject to certain restrictions specified by the Plan. Participant loans (notes receivable from participants) bear interest at a rate similar to those rates charged by commercial lenders, and are repayable within a period of five years, unless the loan is for the purchase of the principal residence of the borrower, in which case the term may exceed five years. Loans are secured by the respective participant's remaining balance. Principal and interest are paid ratably through regular payroll deductions.

Interest rates on outstanding loans at December 31, 2022 were 4.25% to 7.25% with various maturities through October 2025. Interest rate on outstanding loans at December 31, 2021 were 4.25% with various maturities through August 2025.

Payment of Benefits

Withdrawals may be made from a participant's account at retirement, death, disability, or termination of employment. The participant's account can be distributed to the participant (or to the participant's beneficiary in the event of the participant's death) in the form of installment payments, partial withdrawals, a single lump-sum payment, or direct rollover distribution. Participants over age 59 ½ may elect to withdraw all or a portion of their account. All distributions are subject to the applicable provisions of the Plan.

Terminated participants with the balance less than \$1,000, will receive the balance of their account in a lump sum payment unless the participants request a rollover. For balances greater than \$1,000, but less than \$5,000, benefit payments are made in the form of either a lump sum payment, or are rolled over into an IRA account for the benefit of the participant.

Synlogic 401(k) Plan

Notes to Financial Statements (continued)

1. Description of Plan (continued)

Administrative Expenses

The Company pays the administrative expenses of the Plan (not otherwise paid through utilization of the recapture account) except for fees related to the origination and maintenance of notes receivable from participants which are charged to the participants who borrow from the Plan, and certain fees associated with benefit payments and investment management fees. Investment management fees charged to the Plan are deducted from income earned on a daily basis and are not separately stated. Investment management fees are reflected as an addition to net depreciation in fair value of investments.

Plan Termination

Although it has not expressed any intent to do so, the Company has the right under the Plan to terminate the Plan at any time, subject to the provisions of ERISA.

2. Significant Accounting Policies

Basis of Accounting

The financial statements of the Plan are prepared under the accrual basis in accordance with U.S. generally accepted accounting principles.

Payment of Benefits

Benefits are recorded when paid.

Notes Receivable from Participants

Notes receivable from participants represent participant loans that are recorded at their unpaid principal balance plus any accrued but unpaid interest. Interest income on notes receivable from participants is recorded when it is earned. Related fees are recorded as administrative expenses and are expensed when they are incurred. No allowance for credit losses has been recorded as of December 31, 2022 or 2021. If a participant ceases to make loan repayments and the plan administrator deems the participant loan to be a distribution, the participant loan balance is reduced and a benefit payment is recorded.

Synlogic 401(k) Plan

Notes to Financial Statements (continued)

2. Significant Accounting Policies (continued)

Investment Valuation and Income Recognition

Investments held by the Plan are stated at fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (an exit price). See Note 4 for further discussion and disclosures related to fair value measurements.

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date. Net depreciation includes the Plan's gains and losses on investments bought and sold as well as held during the year.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires the plan administrator to make estimates and assumptions that affect certain reported amounts in the financial statements and accompanying notes and supplemental schedule. Actual results could differ from those estimates.

Subsequent Events

Management evaluated subsequent events for the Plan through October 2, 2023, the date the financial statements were available to be issued and have determined there are no events that require disclosure.

3. Investments and Notes Receivable from Participants

All investment information disclosed in the accompanying financial statements and supplemental schedule, including investments held and notes receivable from participants at December 31, 2022 and 2021, net depreciation in fair value of investments, interest, dividends and interest income on notes receivable from participants for the year ended December 31, 2022, was obtained or derived from information supplied to the plan administrator and certified as complete and accurate by Fidelity Management Trust Company, the trustee of the Plan.

Synlogic 401(k) Plan

Notes to Financial Statements (continued)

4. Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (i.e., an exit price). The fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets and liabilities (Level 1), and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy are described below:

Level 1 – Fair value is based on unadjusted quoted prices for identical assets or liabilities in an active market that the Plan has the ability to access at the measurement date.

Level 2 – Fair value is based on quoted prices in markets that are not active, quoted prices for similar assets and liabilities in active markets, and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the asset or liability.

Level 3 – Fair value is based on prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable. These inputs reflect management's judgment about the assumptions that a market participant would use in pricing the investment, and are based on the best available information, some of which may be internally developed.

The level in the fair value hierarchy within which the fair value measurement is categorized is determined based on the lowest level input that is significant to the fair value measurement in its entirety.

Mutual Funds – Valued at the closing price on the active market on which the individual securities traded.

The following tables set forth by level, within the fair value hierarchy, the Plan's assets carried at fair value:

Investments at Fair Value as of December 31, 2022				
	Level 1	Level 2	Level 3	Total
Mutual funds	\$6,287,405	\$ -	\$ -	\$6,287,405
Total assets in the fair value hierarchy	\$6,287,405	\$ -	\$ -	\$6,287,405

Investments at Fair Value as of December 31, 2021				
	Level 1	Level 2	Level 3	Total
Mutual funds	\$6,390,067	\$ -	\$ -	\$6,390,067
Total assets in the fair value hierarchy	\$6,390,067	\$ -	\$ -	\$6,390,067

Synlogic 401(k) Plan

Notes to Financial Statements (continued)

6. Tax Status

The underlying pre-approved profit sharing plan has received an opinion letter from the Internal Revenue Service (IRS) dated June 30, 2020, stating that the form of the Plan is qualified under Section 401 of the Internal Revenue Code (the Code), and therefore, the related trust is tax exempt. The plan administrator has determined that it is eligible to and has chosen to rely on the current IRS opinion letter. Once qualified, the Plan is required to operate in conformity with the Code to maintain its qualified status. The plan administrator believes the Plan is being operated in compliance with the applicable requirements of the code and therefore, believes the Plan is qualified and the related trust is tax-exempt.

Accounting principles generally accepted in the United States require Plan management to evaluate uncertain tax positions taken by the Plan. The financial statement effects of a tax position are recognized when the position is more likely than not, based on the technical merits, to be sustained upon examination by the IRS. The plan administrator has analyzed the tax positions taken by the Plan, and has concluded that as of December 31, 2022, there are no uncertain positions taken or expected to be taken. The Plan has recognized no interest or penalties related to uncertain tax positions. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress.

7. Related Party and Party-in-interest Transactions

Certain Plan investments are shares of mutual funds managed by Fidelity. Fidelity is the trustee and record-keeper as defined by the Plan and therefore, these transactions qualify as party-in-interest transactions and are considered exempt from the prohibited transaction rules under ERISA. Certain fees incurred by the Plan are included in net depreciation in fair value of the investments, as they are paid through revenue sharing, rather than a direct payment. The Plan paid direct record keeping fees to Fidelity of approximately \$11,570. Notes receivable from participants are also considered party-in-interest transactions.

8. Risks and Uncertainties

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market volatility, and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term, and that such changes could materially affect the amounts reported in the statements of net assets available for benefits.

Synlogic 401(k) Plan

Notes to Financial Statements (continued)

10. Reconciliation between the Form 5500 and the Financial Statements

The following is a reconciliation of net assets available for benefits per the Form 5500 to the financial statements:

	December 31	
	2022	2021
Net assets available for benefits per the Form 5500	\$6,317,086	\$6,404,798
Add: Employer contributions receivable	54,292	80,813
Net assets available for benefits per the financial statements	<u>\$6,371,378</u>	<u>\$6,485,611</u>

The following is a reconciliation of net change per the Form 5500 to the net increase per the financial statements for the year ended December 31, 2022:

Net loss per the Form 5500	\$(87,712)
Add: Employer contributions receivable at December 31, 2022	54,292
Less: Employer contributions receivable at December 31, 2021	<u>(80,813)</u>
Net decrease per the financial statements	<u>\$(114,333)</u>

Supplemental Schedule

Synlogic 401(k) Plan
Schedule H, Line 4i – Schedule of Assets (Held at End of Year)
EIN #46-5311566 Plan #001

December 31, 2022

(a)	(b) Identity of Issue, Borrower, Lessor, or Similar Party	(c) Description of Investment Including Maturity Date, Rate of Interest, Collateral, Par, or Maturity Value	(c) Current Value
	Mutual Funds		
	John Hancock Bond R4	835 shares	\$ 11,124
	T. Rowe Price Div Growth I	966 shares	61,904
	Allspring Special Small Cap Value Fund	106 shares	3,758
	Columbia Div Inc A	727 shares	21,019
	Allspring Special Mid Cap Value Fund	641 shares	28,197
	Pif Small Cap R4	1,280 shares	29,397
	MFS Mid Cap Growth R3	3,175 shares	69,699
	GS Infl-Pro Secs Inv	5,764 shares	55,218
*	Fidelity Sel Biotech	2,777 shares	45,212
*	Fidelity Overseas	385 shares	19,461
*	Fidelity Real Estate Invs	278 shares	10,379
*	Fidelity Blue Chip Gr	2,383 shares	267,960
*	Fidelity Emerging Markets	1,560 shares	49,002
*	Fidelity Freedom Income	1,307 shares	12,996
*	Fidelity Freedom 2020	8,418 shares	107,409
*	Fidelity Freedom 2030	19,006 shares	278,057
*	Fidelity Government Money Market	13,270 shares	13,270
*	Fidelity Freedom 2040	146,073 shares	1,298,586
*	Fidelity Freedom 2025	37,956 shares	444,845
*	Fidelity Freedom 2035	22,533 shares	283,470
*	Fidelity Freedom 2045	67,587 shares	690,065
*	Fidelity Freedom 2050	55,510 shares	573,409
*	Fidelity US Bond Index	8,181 shares	83,279
*	Fidelity 500 Index	5,580 shares	742,767
*	Fidelity Freedom 2055	31,562 shares	377,801
*	Fidelity Global Ex US Index	7,544 shares	94,678
*	Fidelity Mid Cap Index	4,642 shares	120,324
*	Fidelity Small Cap Index	3,551 shares	77,054
*	Fidelity Freedom 2060	24,185 shares	266,281
*	Fidelity US Sustin Index	4,932 shares	82,174
*	Fidelity Intl Cap Appr K6	731 shares	8,813
*	Fidelity Small Cap Gr K6	659 shares	8,325
*	Fidelity Freedom 2065	5,111 shares	51,472
	Total Mutual Funds		<u>6,287,405</u>
*	Notes Receivable from Participants	4.25 – 7.25%	<u>29,681</u>
			<u><u>\$ 6,317,086</u></u>

* Represents a party-in-interest to the Plan.

Note: Cost information has not been included because investments are participant directed.

Synlogic 401(k) Plan
Schedule H, Line 4i – Schedule of Assets (Held at End of Year)
EIN #46-5311566 Plan #001

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