UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): May 15, 2018

SYNLOGIC, INC.

(Exact name of registrant as specified in its charter)

Delaware001-3756626-1824804(State or other jurisdiction of incorporation)(Commission (IRS Employer Identification No.)

301 Binney St., Suite 402
Cambridge, MA
(Address of principal executive offices)

provisions:

02142 (Zip Code)

Registrant's telephone number, including area code: (617) 401-9975

Not applicable

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following

Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
ndicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 17 CFR §230.405) or Rule 12b-2 of the Securities Exchange Act of 1934 (17 CFR §240.12b-2). Emerging Growth Company ☑
f an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or evised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 2.02 Results of Operations and Financial Condition

On May 15, 2018, Synlogic, Inc. (the "Company") announced its financial results for the quarter ended March 31, 2018. The full text of the press release issued in connection with the announcement is furnished as Exhibit 99.1 to this Current Report on Form 8-K.

The information in this Current Report on Form 8-K (including Exhibit 99.1) shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act") or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in such filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

The following exhibit relating to Item 2.02 shall be deemed to be furnished, and not filed:

99.1 Press Release dated May 15, 2018

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

SYNLOGIC, INC.

Date: May 15, 2018 By: /s/ TODD SHEGOG

Name: Todd Shegog

Title: Chief Financial Officer

Synlogic Reports First Quarter 2018 Financial Results and Provides Business Update

- Treated first subject in clinical trials of two Synthetic Biotic TM medicines, SYNB1020 and SYNB1618; both studies expected to generate data in 2018 -

CAMBRIDGE, Mass.--(BUSINESS WIRE)--May 15, 2018--Synlogic, Inc. (Nasdaq: SYBX), a clinical stage company applying synthetic biology to probiotics to develop novel, living medicines, today reported its financial results for the first quarter ended March 31, 2018.

Recent Highlights

Corporate

- Leadership Transition: On May 10, 2018, Synlogic announced a CEO transition; Chief Medical Officer, Aoife Brennan, M.B., B.Ch., was appointed to serve as Interim President and Chief Executive Officer as successor to Jose-Carlos Gutiérrez-Ramos, Ph.D.; Peter Barrett, Ph.D., the Chairman of Synlogic's board of directors will serve as Executive Chairman and oversee a Board committee to conduct a search for a permanent CEO.
- **Strengthened Company's balance sheet:** As of March 31, 2018, Synlogic had cash, cash equivalents, and short-term investments of \$125.8 million. In April 2018, the Company completed a registered direct offering generating \$28.9 million in net proceeds. Synlogic expects its current cash, cash equivalents and marketable securities position will be sufficient to fund operations to mid-2020 based on its current business plan.

Pipeline

- Treatment of the first subject in a Phase 1/2a clinical trial evaluating SYNB1618, in development for the treatment of phenylketonuria (PKU). This Phase 1/2a clinical trial is a single (SAD) and multiple (MAD) dose-escalation, randomized, double-blind, placebo-controlled study of orally administered SYNB1618 in healthy adult volunteers and adult subjects with PKU. The study is designed to evaluate safety, tolerability, kinetics, and pharmacodynamics as well as exploratory end-points associated with the ability of SYNB1618 to metabolize phenylalanine. Synlogic expects to report interim data from this trial in the second half of 2018 and the full data in 2019. More information about this study can be found at www.clinicaltrials.gov.
- Treatment of the first subject in a Phase 1b/2a clinical trial evaluating SYNB1020, in development for the treatment of hyperammonemia. This Phase1b/2a clinical trial is a randomized, double-blind, placebo-controlled study designed to evaluate the safety and tolerability of SYNB1020, as well as its ability to lower blood ammonia levels, in patients with cirrhosis and elevated blood ammonia. Synlogic expects to report topline date from this trial at the end of 2018. Additional information about this study can be found at www.clinicaltrials.gov.

- Fast-Track designation granted by the U.S. Food and Drug Administration (FDA) for SYNB1618 for the treatment of PKU. The FDA Fast Track program is designed to facilitate the development of important new drugs intended to treat a serious condition and to fill an unmet medical need. The designation enables early and frequent communication between the FDA and Synlogic ensuring that questions and issues are resolved quickly, and often leading to earlier drug approval and access by patients.
- **Presentation of preclinical data from Synlogic's immuno-oncology (IO) program** at the annual meeting of the American Association for Cancer Research (AACR). The data demonstrate that, in mouse models, Synthetic Biotic medicines stimulate an antitumor response and robustly reprogram the tumor microenvironment, potentially enabling the treatment of a variety of cancers.

First Quarter 2018 Financial Results

For the three months ended March 31, 2018, Synlogic reported a consolidated net loss of \$11.2 million, or \$0.55 per share, compared to a net loss of \$7.4 million, or \$4.49 per unit, for the corresponding period in 2017. The increase in net loss was primarily due to increases in compensation-related expenses as Synlogic continues to grow its employee headcount and hire into key positions to support its corporate goals, as well as increases in research and development expenses to support its advancing clinical programs.

Research and development expenses were \$8.4 million for the three months ended March 31, 2018 compared to \$5.1 million for the corresponding period in 2017. The increase was primarily due to an increase in compensation-related expenses associated with increased headcount, increased external costs associated with process and formulation development, pre-clinical and clinical studies and increased costs associated with Synlogic's move to a larger facility.

General and administrative expenses for the three months ended March 31, 2018 were \$3.6 million compared to \$2.4 million for the corresponding period in 2017. The increase was primarily due to increases in compensation-related expenses associated with increased headcount and increases in expenses related to being a newly public company, including audit, legal and investor relations.

As of March 31, 2018, Synlogic had cash, cash equivalents, and short-term investments of \$125.8 million.

About Synlogic

Synlogic is pioneering the development of a novel class of living medicines, Synthetic Biotic medicines, based on its proprietary drug development platform. Synlogic leverages the tools and principles of synthetic biology to genetically engineer probiotic microbes to perform or deliver critical functions missing or damaged due to disease. The company's two lead programs, SYNB1020 and SYNB1618, target hyperammonemia as a result of liver damage or genetic disease, and PKU, respectively. When delivered orally, Synthetic Biotic medicines can act from the gut to compensate for the dysfunctional metabolic pathway and have a systemic effect, with the potential to significantly improve symptoms of disease for affected patients. In addition, the company is leveraging the broad potential of its platform to create Synthetic Biotic medicines for the treatment of more common diseases, including liver disease, inflammatory and immune disorders, and cancer. Synlogic is collaborating with AbbVie to develop Synthetic Biotic-based treatments for inflammatory bowel disease (IBD). For more information, please visit www.synlogictx.com.

Forward-Looking Statements

This press release contains "forward-looking statements" that involve substantial risks and uncertainties for purposes of the safe harbor provided by the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical facts, included in this press release regarding strategy, future operations, future financial position, future revenue, projected expenses, prospects, plans and objectives of management are forward-looking statements. In addition, when or if used in this press release, the words "may," "could," "should," "anticipate," "believe," "estimate," "expect," "intend," "plan," "predict" and similar expressions and their variants, as they relate to Synlogic may identify forward-looking statements. Examples of forward-looking statements, include, but are not limited to, statements regarding the potential of Synlogic's platform to develop therapeutics to address a wide range of diseases including: inborn errors of metabolism, liver disease, inflammatory and immune disorders, and cancer; the future clinical development of Synthetic Biotic medicines; the approach Synlogic is taking to discover and develop novel therapeutics using synthetic biology; the potential of Synlogic's technology to treat hyperammonemia and phenylketonuria; and the expected timing of Synlogic's anticipated clinical trial initiations. Actual results could differ materially from those contained in any forward-looking statement as a result of various factors, including: the uncertainties inherent in the preclinical development process; the ability of Synlogic to protect its intellectual property rights; and legislative, regulatory, political and economic developments, as well as those risks identified under the heading "Risk Factors" in Synlogic's filings with the SEC. The forward-looking statements contained in this press release reflect Synlogic's current views with respect to future events. Synlogic anticipates that subsequent events and developments will cause its views to change. However, while Synlogic may elect to update these forward-looking statements in the future, Synlogic specifically disclaims any obligation to do so. These forward-looking statements should not be relied upon as representing Synlogic's view as of any date subsequent to the date hereof.

Synlogic, Inc. Condensed Consolidated Statements of Operations (unaudited)

(in thousands)		For the three	o montho	andad
(in thousands)	For the three March 31, 2018		March 31, 2017	
	17101	CH 51, 2010	Marci	131, 2017
Revenue	\$	354	\$	111
Operating expenses				
Research and development		8,361		5,118
General and administrative		3,629		2,367
Total operating expenses		11,990		7,485
Loss from operations		(11,636)		(7,374)
Other income (expense), net		471		6
Net loss	\$	(11,165)	\$	(7,368)
Net loss per share attributable to common shareholders - basic and diluted	\$	(0.55)	\$	-
Weighted-average common shares used in computing net loss per share attributable to common shareholders - basic and diluted		20,145,881		-
Net loss per unit attributable to common unit holders - basic and diluted	\$		\$	(4.49)
Weighted-average common units used in computing net loss per unit attributable to common unit holders - basic and diluted	Ψ		Ψ	1,640,367
Synlogic, Inc. Condensed Consolidated Balance Sheets Data (unaudited)				
(in thousands)				
(iii iiiousaiius)	Mar	ch 31, 2018	Decemb	er 31, 2017
Assets				
Cash, cash equivalents and short-term investments	\$	125,803	\$	87,025
Fixed assets		13,704		9,783
Other assets		3,154		2,891
Total assets	\$	142,661	5	99,699
Liabilities and Stockholders' Equity				
Current liabilities	\$	7,010	\$	9,027
Long-term liabilities		6,884		5,634
Total liabilities		13,894		14,661
Total stockholders' equity	_	128,767	_	85,038
Total liabilities and stockholders' equity	\$	142,661	\$	99,699

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