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): July 31, 2018

SYNTHETIC BIOLOGICS, INC.

(Exact name of registrant as specified in its charter)

Nevada	001-12584	13-3808303
(State or other jurisdiction of incorporation)	(Commission File No.)	(IRS Employer Identification No.)

9605 Medical Center Drive, Suite 270
Rockville, MD 20850
(Address of principal executive offices and zip code)

Registrant's telephone number, including area code: (301) 417-4364

N/A
(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 provisions:

☐ 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))

Indicate by check mark whether the registrant is an emerging growth company as defined in in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☐

If an emerging growth company, indicate by checkmark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 3.03 Material Modification to Rights of Security Holders.

On July 31, 2018, the Board of Directors of Synthetic Biologics, Inc., a Nevada corporation (the "Company"), approved a reverse stock split of the Company's authorized, issued and outstanding shares of common stock, par value $0.001 per share, at a ratio of 1-for-35. On August 1 2018, the Company issued a press release announcing the Reverse Stock Split. A copy of the press release is filed herewith as Exhibit 99.1.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	Description
99.1	Press Release of Synthetic Biologics, Inc., dated August 1, 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.

Dated: August 1, 2018

SYNTHETIC BIOLOGICS, INC.

By: /s/ Steven A. Shallcross
Name: Steven A. Shallcross
Title: Interim Chief Executive Officer and
Chief Financial Officer

EXHIBIT INDEX

Exhibit No.	Description
99.1	Press Release of Synthetic Biologics, Inc., dated August 1, 2018

Exhibit 99.1

Synthetic Biologics Announces Reverse Stock Split

For Immediate Release

Rockville, MD, August 1, 2018 – Synthetic Biologics, Inc. (NYSE American: SYN), a late-stage clinical company developing therapeutics that preserve the microbiome to protect and restore the health of patients, announced today a reverse stock split of its issued and outstanding common stock, par value $0.001 per share, at a ratio of one (1) share of common stock for every thirty-five (35) shares of common stock, effective August 10, 2018 (the "Effective Date"). The Company's common stock will begin trading on a split-adjusted basis when the market opens on August 13, 2018. The reverse stock split was authorized by the Company's Board of Directors on July 31, 2018. Pursuant to the laws of the State of Nevada, the Company's state of incorporation, the Company's Board of Directors has the authority to effect a reverse stock split without shareholder approval if the number of authorized shares of common stock and the number of outstanding shares of common stock are proportionally reduced. The Company will file a certificate of amendment to its amended and restated certificate of incorporation with the Secretary of State of Nevada to effect the reverse stock split. The Company's common stock will continue to trade on the NYSE American under the stock ticker "SYN" but will trade under the new CUSIP number 87164U 201.

As a result of the reverse split, each thirty-five (35) pre-split shares of common stock outstanding will automatically combine into one (1) new share of common stock without any action on the part of the holders, and the number of outstanding common shares will be reduced from 132,969,743 shares to 3,799,136 shares.

The reverse stock split is being effected to meet the per share price requirements of the NYSE American, the Company's current listing exchange. If the Company's common stock were to fall below $0.20 per share on a 30-trading-day average, it may become subject to the continued listing evaluation and follow-up proceedings set forth in Section 1009 of the NYSE American Company Guide, which could, among other things, result in noncompliance with certain NYSE American continued listing standards.

No fractional shares will be issued as a result of the reverse stock split. Shareholders who otherwise would be entitled to a fractional share because they hold a number of shares not evenly divisible by the 1 (one) for thirty-five (35) reverse split ratio, will automatically be entitled to receive an additional fractional share of the Company's common stock to round up to the next whole share.

The Company's transfer agent, Corporate Stock Transfer, Inc., which is also acting as the exchange agent for the reverse split, will send instructions to stockholders of record who hold stock certificates regarding the exchange of their old certificates for new certificates, should they wish to do so. Stockholders who hold their shares in brokerage accounts or "street name" are not required to take action to effect the exchange of their shares.

About Synthetic Biologics, Inc.

Synthetic Biologics, Inc. (NYSE American: SYN) is a late-stage clinical company developing therapeutics that preserve the microbiome to protect and restore the health of patients. The Company's lead candidates poised for Phase 3 development are: (1) SYN-004 (ribaxamase) which is designed to protect the gut microbiome from the effects of certain commonly used intravenous (IV) beta-lactam antibiotics for the prevention of *C. difficile* infection (CDI), overgrowth of pathogenic organisms and the emergence of antimicrobial resistance (AMR), and (2) SYN-010 which is intended to reduce the impact of methane producing organisms in the gut microbiome to treat an underlying cause of irritable bowel syndrome with constipation (IBS-C). The Company's preclinical pursuits include an oral formulation of the enzyme intestinal alkaline phosphatase (IAP) to treat both local GI and systemic diseases as well as monoclonal antibody therapies for the prevention and treatment of pertussis, and novel discovery stage biotherapeutics for the treatment of phenylketonuria (PKU). For more information, please visit Synthetic Biologics' website at www.syntheticbiologics.com.

This release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. In some cases forward-looking statements can be identified by terminology such as "may," "should," "potential," "continue," "expects," "anticipates," "intends," "plans," "believes," "estimates," and similar expressions, and includes statements regarding our planned stock split and the potential benefits of SYN-004 and SYN-010. These forward-looking statements are based on management's expectations and assumptions as of the date of this press release and are subject to a number of risks and uncertainties, many of which are difficult to predict that could cause actual results to differ materially from current expectations and assumptions from those set forth or implied by any forward-looking statements. Important factors that could cause actual results to differ materially from current expectations include, among others, the stock split having the desired effect, Synthetic Biologics' ability to design a Phase 3 trial with the co-primary endpoints and receive FDA approval for such design; Synthetic Biologics' ability to implement the Phase 3 program as a global, event-driven clinical trial, Synthetic Biologics' ability to initiate the Phase 3 clinical program in the second half of 2019 following an end of Phase 2 meeting with the FDA during the second half of 2018, Synthetic Biologics' ability to establish a path forward to develop ribaxamase and conduct a robust, controlled and well-designed clinical trial that may provide sufficient efficacy and safety data to support a pathway towards marketing approval for ribaxamase, Synthetic Biologics' ability to regain compliance with the continued listing standards of the NYSE American by September 2, 2019 and continue to meet the minimum price requirement, Synthetic Biologics' ability to comply with other continued listing requirements of the NYSE American, the ability of its product candidates to demonstrate safety and effectiveness, as well as results that are consistent with prior results, Synthetic Biologics' clinical trials continuing enrollment as expected, a failure to receive the necessary regulatory approvals for commercialization of Synthetic Biologics' therapeutics, including approval of proposed trial designs, a failure of Synthetic Biologics' clinical trials, and those conducted by investigators, for SYN-004 and SYN-010 to be commenced or completed on time or to achieve desired results and benefits, a failure of Synthetic Biologics' clinical trials to continue enrollment as expected or receive anticipated funding, a failure of Synthetic Biologics to successfully develop, market or sell its products, Synthetic Biologics' inability to maintain its material licensing agreements, or a failure by Synthetic Biologics or its strategic partners to successfully commercialize products, Synthetic Biologics' ability to achieve acceptance of its product candidates in the marketplace and the successful development, marketing or sale of Synthetic Biologics' products by competitors that render Synthetic Biologics' products obsolete or non-competitive, the continued maintenance and growth of Synthetic Biologics' patent estate, Synthetic Biologics becoming and remaining profitable, Synthetic Biologics' ability to obtain or maintain the capital or grants necessary to fund its research and development activities, a loss of any of Synthetic Biologics' key scientists or management personnel and other factors described in Synthetic Biologics' Form 10-K for the year ended December 31, 2017 and its other filings with the SEC, including subsequent periodic reports on Forms 10-Q and 8-K. The information in this release is provided only as of the date of this release, and Synthetic Biologics undertakes no obligation to update any forward-looking statements contained in this release on account of new information, future events, or otherwise, except as required by law.

For further information, please contact:

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