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): April 18, 2014

Synthetic Biologics, Inc. (Exact name of registrant as specified in charter)

Nevada (State or other jurisdiction of incorporation)

01-12584 (Commission File Number)

13-3808303 (IRS Employer Identification No.)

155 Gibbs Street, Ste. 412 Rockville, MD 20850

(Address of principal executive offices and zip code)

(734) 332-7800 (Registrant's telephone number including area code)

N/A (Former Name and Former Address)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of 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(b) 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))

Item 1.02. Termination of a Material Definitive Agreement.

On April 18, 2014, Synthetic Biologics, Inc. (the "Company") delivered written notice to Cantor Fitzgerald & Co. that it was terminating its Controlled Equity Offering SM Sales Agreement, dated July 3, 2013, and amended on December 11, 2013, (the "Agreement"), pursuant to Section 12(b) of the Agreement, effective as of the close of business on April 28, 2014. No shares were offered or sold pursuant to the Agreement, and the offering facility is no longer available for use.

A copy of the Agreement was filed as Exhibit 1.2 to the Company's Registration Statement on Form S-3 filed with the Securities and Exchange Commission on July 3, 2013. The description of the Agreement contained in this report does not purport to be complete and is qualified in its entirety by reference to the copy of the Agreement filed as Exhibit 1.2 to the July 3, 2013 registration statement.

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: April 22, 2014 SYNTHETIC BIOLOGICS, INC. (Registrant)

By: /s/ C. Evan Ballantyne
Name: C. Evan Ballantyne

Title: Chief Financial Officer