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 16, 2013

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, Suite 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 16, 2013, after filing its Annual Report on Form 10-K, Synthetic Biologics, Inc. (the "Company") received notification from Intrexon Corporation ("Intrexon") that the Exclusive Channel Collaboration Agreement dated November 18, 2011 between the Company and Intrexon (the "Channel Agreement") that governed a "channel collaboration" arrangement in which the Company intended to use Intrexon's technology for the treatment of pulmonary arterial hypertension ("PAH") has been terminated. Prior to termination, the Company and Intrexon discussed the Company's priority to focus on the development of product candidates for the prevention and treatment of serious infectious diseases. As a result of this termination, all licenses granted by Intrexon to the Company under the Channel Agreement terminate and revert back to Intrexon, and the PAH program will not be substituted for an alternate program under this Channel Agreement.

The Company is focused on the development of biologics for the prevention and treatment of serious infectious diseases. The Company is developing an oral enzyme for the prevention of *C. difficile* infections, and a series of monoclonal antibody therapies for the treatment of Pertussis and *Acinetobacter* infections. In connection with the development of a series of monoclonal antibody therapies for the treatment of Pertussis and *Acinetobacter* infections, the Exclusive Channel Collaboration Agreement dated August 6, 2012 between the Company and Intrexon (the "Second Channel Agreement") that governs a "channel collaboration" arrangement in which the Company will use Intrexon's technology relating to the identification, design and production of human antibodies and DNA vectors for the development and commercialization of a series of monoclonal antibody therapies for the treatment of certain serious infectious diseases, remains in effect.

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 19, 2013 Synthetic Biologics, Inc.

(Registrant)

By: /s/ C. Evan Ballantyne

Name: C. Evan Ballantyne
Title: Chief Financial Officer