



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

August 18, 2017

Steven A. Shallcross
Chief Financial Officer
Synthetic Biologics, Inc.
9605 Medical Center Drive, Ste. 270
Rockville, MD 20850

Re: Synthetic Biologics, Inc.
Form 10-K
Filed March 2, 2017
File No. 001-12584

Dear Mr. Shallcross:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments.

Form 10-K for the Fiscal Year Ended December 31, 2016

Item 1. Business

Intellectual Property, page 11

1. Please expand your disclosure in future filings regarding your intellectual property portfolio to (i) clarify which patents are owned and which ones are licensed, (ii) identify the product candidate to which your patents and patent applications apply, and (iii) disclose the foreign jurisdictions where you have issued patents or pending patent applications, and the corresponding expiration dates (or expected expiration dates).

Our Collaborations, page 11

2. In future filings, please expand the description of your various collaboration agreements to disclose:

Steven A. Shallcross
Synthetic Biologics, Inc.
August 18, 2017
Page 2

- the royalty rates (or a range of royalty rates within a 10% range) that are payable under these agreements, to the extent not already provided;
- the aggregate future potential milestone payments that are payable under the CSMC License Agreement and the Prev Agreement;
- the term of your collaboration and license agreements (and with respect to the Texas License Agreement, please clarify when the patent rights expire so that investors understand the term of the agreement); and
- the termination provisions under the PKU ECC and Prev Agreement.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations Liquidity and Capital Resources, page 42

3. We note your disclosure on page 43 that based on your current plans, your cash and cash equivalents will not be sufficient to enable you to meet your near term expected plans. In future filings, please expand your disclosure to describe how your cash position will affect your operations. To this end, we refer to your statements in recent earnings calls that you intend to initiate your Phase 2b/3 pivotal study for SYN-010 only once you have the clinical financial infrastructure necessary for its completion and to that end you are evaluating the option of a partnership with another pharmaceutical company.

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Please contact Dorrie Yale at 202-551-8776 or Irene Paik at 202-551-6553 with any questions.

Division of Corporation Finance
Office of Healthcare & Insurance

cc: Leslie Marlow, Esq. - Gracin & Marlow, LLP