

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

September 20, 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 for the Fiscal Year Ended December 31, 2016

Filed March 2, 2017 File No. 001-12584

Dear Mr. Shallcross:

We have completed our review of your filing. 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 by the staff.

Division of Corporation Finance Office of Healthcare & Insurance

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