



DIVISION OF
CORPORATION FINANCE

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

May 5, 2017

Michael Bristow
President and Chief Executive Officer
ARCA biopharma, Inc.
11080 CirclePoint Road, Suite 140
Westminster, CO 80020

Re: ARCA biopharma, Inc.
Registration Statement on Form S-3
Filed April 25, 2017
File No. 333-217459

Dear Dr. Bristow :

This is to advise you that we have not reviewed and will not review your registration statement.

Please refer to Rules 460 and 461 regarding requests for acceleration. 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 with any questions.

Division of Corporation Finance
Office of Healthcare & Insurance

cc: Brent D. Fassett