



DIVISION OF  
CORPORATION FINANCE

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

July 16, 2024

Thomas A. Keuer  
President and Chief Operating Officer  
ARCA biopharma, Inc.  
10170 Church Ranch Way, Suite 100  
Westminster, CO 80021

**Re: ARCA biopharma, Inc.**  
**Amendment No. 2 to Registration Statement on Form S-4**  
**Filed July 9, 2024**  
**File No. 333-279387**

Dear Thomas A. Keuer:

We have reviewed your amended registration statement and have the following comment.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe the comment applies to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to this letter, we may have additional comments. Unless we note otherwise, any references to prior comments are to comments in our July 3, 2024 letter.

Amendment No. 2 to Registration Statement on Form S-4

Opinion of Lucid, ARCA's Financial Advisor, to ARCA's Board of Directors, page 112

1. We note your disclosure that Lucid, in connection with its opinion, "[r]eviewed and analyzed certain internal financial analyses, including . . . projections as to cost and expenses . . . and other information concerning Oruka prepared by Oruka[.]" Please disclose these financial projections and discuss the material assumptions and limitations underlying the financial projections or, alternatively, please explain why such disclosures are not required pursuant to Item 4(b) of Form S-4 and Item 1015(b)(6) of Regulation M-A.

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Please contact Jenn Do at 202-551-3743 or Daniel Gordon at 202-551-3486 if you have questions regarding comments on the financial statements and related matters. Please contact Tamika Sheppard at 202-551-8346 or Joshua Gorsky at 202-551-7836 with any other questions.

Sincerely,

Division of Corporation Finance  
Office of Life Sciences

cc: Brent D. Fassett