

July 18, 2024

Kristen Fortney, Ph.D.  
Chief Executive Officer  
BioAge Labs, Inc.  
1445A South 50th Street  
Richmond, California 94804

Re: BioAge Labs, Inc.  
Amendment No. 1 to Draft Registration Statement on Form S-1  
Submitted July 3, 2024  
CIK No. 0001709941

Dear Kristen Fortney Ph.D.:

We have reviewed your amended draft registration statement and have the following comments.

Please respond to this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe a comment applies to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to this letter and your amended draft registration statement or filed registration statement, we may have additional comments. Unless we note otherwise, any references to prior comments are to comments in our June 28, 2024 letter.

Amendment No. 1 to Draft Registration Statement on Form S-1  
Prospectus Summary

We are also developing orally available, brain-penetrant inhibitors of NLRP3, a key target for neuroinflammation, page 7

1. We note your response to prior comment 6, including your revised disclosure on page 145. Please provide in the prospectus summary the basis for the statement that "[i]nactivation of NLRP3 in mice has been shown to significantly extend lifespan, and sustain physical and cognitive function." In addition, please quantify the mice tested in the prospectus summary.

July 18, 2024

Page 2

Risk Factors

Risks Related to Our Reliance on Third Parties

The manufacture of pharmaceutical products, including our product candidates . . . , page 42

2. We note your response to prior comment 7 and your revised disclosure on page 44 noting that the "BIOSECURE ACT defines a 'biotechnology company of concern' to include . . .

[WuXi]" and that you are "presently party to agreements with WuXi, pursuant to which WuXi provides development and manufacturing services to [you]." We also note your disclosure that you "may be unable to enter into additional agreements with third-party manufacturers or suppliers[.]" To the extent you may be unable to replace certain agreements with WuXi, please consider whether you are substantially dependent on them and whether they are required to be filed pursuant to Item 601(b)(10)(ii)(B) of Regulation S-K.

Business

Indication expansion opportunities, page 143

3. We note your response to prior comment 16 and re-issue in part. Please disclose who conducted the third-party cross-over trial, whether it was preclinical or clinical, and specify the third-party preclinical literature. In addition, please

provide a basis for your  
claim that the "evidence indicating apelin has the potential to directly  
improve insulin  
sensitivity and glucose control" is "robust." In this regard, we note  
your reference to  
one "small . . . cross-over trial" and "third-party preclinical  
literature."

Please contact Eric Atallah at 202-551-3663 or Vanessa Robertson at  
202-551-3649 if  
you have questions regarding comments on the financial statements and related  
matters. Please  
contact Jimmy McNamara at 202-551-7349 or Joshua Gorsky at 202-551-7836 with  
any other  
questions.

Sincerely,

Division of

Office of Life

Corporation Finance

Sciences

cc: Julia Forbess