

September 3, 2024

**VIA EDGAR AND ELECTRONIC TRANSMISSION**

U.S. Securities and Exchange Commission  
Division of Corporation Finance  
Office of Life Sciences  
100 F Street, NE  
Washington, DC 20549

Attention: Eric Atallah  
Vanessa Robertson  
Jimmy McNamara  
Joshua Gorsky

Re: **BioAge Labs Inc.**  
**Amendment No. 2 to Draft Registration Statement on Form S-1**  
**Submitted August 5, 2024**  
**CIK No. 0001709941**

Ladies and Gentlemen:

We are submitting this letter on behalf of BioAge Labs, Inc. (the “*Company*”) in response to the comment of the staff (the “*Staff*”) of the U.S. Securities and Exchange Commission (the “*Commission*”) contained in the Staff’s letter dated August 9, 2024 (the “*Letter*”), regarding the Company’s Amendment No. 2 to Draft Registration Statement on Form S-1 (CIK No. 0001709941) confidentially submitted by the Company to the Commission on August 5, 2024 (the “*Draft Registration Statement*”). Concurrently, we are transmitting herewith and filing a copy of the Company’s Registration Statement on Form S-1 (the “*Registration Statement*”). The numbered paragraph below corresponds to the numbered comment in the Letter and the Staff’s comment is presented in bold italics.

In addition to addressing the comment raised by the Staff in the Letter, the Company has revised the Registration Statement to update certain other disclosures. Capitalized terms used and not otherwise defined herein have the same meanings as specified in the Registration Statement.

Amendment No. 2 to Draft Registration Statement on Form S-1

Business

Indication expansion opportunities, page 143

1. *We note your response to comment 3 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 response to the Staff's comment, the Company has revised its disclosure on page 144 of the Registration Statement to confirm the third-party cross-over trial disclosed was a clinical trial conducted by Institut National De La Sante Et De La Recherche Medicale. The Company also revised its disclosures to cite the third-party preclinical literature referenced in the Registration Statement.

\* \* \* \* \*

Should the Staff have additional questions or comments regarding the foregoing, please do not hesitate to contact me at (415) 875-2420, or in my absence, Robert Freedman at (206) 389-4524.

Sincerely,

*/s/ Julia Forbess*

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Julia Forbess  
Partner

FENWICK & WEST LLP

cc:

Kristen Fortney, Chief Executive Officer and President  
**BioAge Labs, Inc.**

Robert Freedman, Esq.  
Matthew Rossiter, Esq.  
Michael Pilo, Esq.  
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Denny Won, Esq.  
Divakar Gupta, Esq.  
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