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JULIA FORBESS September 12, 2024

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CERTAIN PORTIONS OF THIS LETTER AS FILED VIA EDGAR HAVE BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED FOR THE OMITTED PORTIONS, WHICH HAVE BEEN REPLACED WITH THE FOLLOWING PLACEHOLDER: "[*]."

VIA EDGAR, FACSIMILE AND OVERNIGHT DELIVERY

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.

Registration Statement on Form S-1

Filed September 3, 2024 File No. 333-281901 CIK No. 0001709941

Ladies and Gentlemen:

On behalf of BioAge Labs, Inc. (the "Company"), and in connection with the above-referenced Registration Statement on Form S-1 originally confidentially submitted by the Company with the Securities and Exchange Commission (the "Commission") on May 31, 2024 and subsequently publicly filed by the Company with the Commission on September 3, 2024 (as amended, the "Registration Statement"), we submit this letter to the staff of the Commission (the "Staff") in response to the Staff's comment 9 in its letter to the Company dated June 28, 2024, concerning valuation considerations related to the Company's equity awards. For the convenience of the Staff, we are providing to the Staff by overnight delivery copies of this letter.

Because of the commercially sensitive nature of information contained herein, this submission is accompanied by the Company's request for confidential treatment of selected portions of this letter pursuant to Rule 83 of the Commission's Rules on Information and Requests, 17 C.F.R. § 200.83 and the Freedom of Information Act. A redacted version of this letter will be filed with the Commission on EDGAR, omitting the confidential information.

Preliminary IPO Price Range

We advise the Staff that the Company currently anticipates that it will include an expected price range in its preliminary prospectus (the "Preliminary Prospectus") for the proposed initial public offering (the "IPO") that will be between approximately \$[*] and \$[*] per share (the "Preliminary Price Range") prior to effecting a proposed reverse stock split (the "Stock Split") of the Company's common stock (the "Common Stock"). The Company plans to effect the Stock Split in connection with its IPO pursuant to a future amendment of the Company's certificate of incorporation that will be filed with the Secretary of State of the State of Delaware before filing the Preliminary Prospectus with the Commission. The share numbers and stock prices set forth in this letter do not reflect the Stock Split and are all pre-split. Prior to September 9, 2024, the underwriters did not deliver the Preliminary Price Range for the Offering.

The Preliminary Price Range has been determined based upon various factors, including current market conditions and the supply and demand for such investment opportunities in the marketplace; an analysis of the typical valuation ranges seen in comparable public companies in the Company's industry, as well as a broader set of valuation ranges seen in recent IPOs; a comparison of comparable public companies at a similar stage of development and commercial growth; favorable feedback from prospective investors as a result of testing-the-waters meetings; an assumption that there would be a receptive public trading market for biotechnology companies such as the Company; the Company's current financial condition and prospects; the Company's progress in developing its pipeline of product candidates; the substantial progress the Company made in advancing its IPO, including continuing to clear the Staff's comments on the Registration Statement and publicly filing the Registration Statement; and input received from the lead underwriters of the proposed offering, including discussions that took place on August 23, 2024 and September 9, 2024 among senior management of the Company, the Board of Directors of the Company (the "Board") and representatives of Goldman Sachs & Co. LLC, Morgan Stanley & Co. LLC, Jefferies LLC and Citigroup Global Markets Inc., the lead underwriters of the IPO. Prior to August 23, 2024, the Company had not held formal discussions with the underwriters regarding a price range for the IPO. The Preliminary Price Range does not take into account the current lack of liquidity for the Common Stock and assumes a successful IPO with no weighting attributed to any other outcome for the Company's business, such as remaining a privately held company.

The Company expects to include the actual price range in the Preliminary Prospectus (which will comply with the Staff's interpretation regarding the parameters of a bona fide price range) that would shortly precede the commencement of the Company's public marketing process for the IPO, which it anticipates could commence as soon as [*]. Such price range could differ from the Preliminary Price Range based on then-current market conditions, continuing discussions with the lead underwriters and further business developments impacting the Company. However, the Company currently believes that the foregoing Preliminary Price Range will not be subject to significant change.

Fair Value Determinations

Given the absence of an active market for the Common Stock, the Board historically has been required to estimate the fair value of the Common Stock at the time of each equity-based award based upon several factors, including the Board's consideration of input from management and third-party valuations.

We supplementally advise the Staff that, as described on pages 102–104 of the Registration Statement, for all periods prior to the IPO, the fair values of the Common Stock underlying the Company's share-based awards were estimated on each grant date by the Board. To determine the fair value of the Common Stock underlying option

grants, the Board considered a variety of factors including, among other things, timely valuations of the Common Stock prepared by an independent third-party valuation firm in accordance with the guidance provided by the American Institute of Certified Public Accountants' Accounting and Valuation Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation* (the "*Valuation Guide*"). Given the absence of a public trading market for the Common Stock, the Board exercised reasonable judgment and considered a number of objective and subjective factors to determine the best estimate of the fair value of the Common Stock, including important developments in the Company's operations, such as the progress of the development of its lead product candidate, azelaprag, valuations performed by an independent third-party valuation firm, sales of the Company's redeemable convertible preferred stock, actual operating results and financial performance, the conditions in the biotechnology industry and the economy in general, the stock price performance and volatility of comparable public companies, the lack of secondary sales of the Common Stock, the lack of liquidity of the Common Stock, and the likelihood of achieving a liquidity event, such as an IPO or sale of the Company.

The following table summarizes the grant of options by the Company since January 1, 2023:

Date of Grant	Number of Shares Subject to Stock Options Granted	Exercise Price Per Share		Fair Value Per Share		Valuation Date
March 16, 2023	1,483,608	\$	2.43	\$	2.43	February 10, 2023
March 29, 2023	362,500	\$	2.43	\$	2.43	February 10, 2023
July 14, 2023	157,000	\$	2.43	\$	2.43	February 10, 2023
September 27, 2023	141,000	\$	2.43	\$	2.43	February 10, 2023
March 26, 2024	416,313	\$	1.88	\$	1.88	February 1, 2024
April 17, 2024	9,545,749	\$	1.88	\$	1.88	February 1, 2024
June 28, 2024	127,500	\$	2.40	\$	2.40	May 31, 2024
August 7, 2024	462,500	\$	2.40	\$	2.40	May 31, 2024
August 19, 2024	631,945	\$	2.40	\$	2.40	May 31, 2024

The Company has not granted any options since August 19, 2024 and does not currently intend to grant any options prior to the completion of the IPO, other than certain additional options to certain employees and members of the Board anticipated on the pricing date of the IPO, which it expects to total 2,344,967 shares, at an exercise price equal to the final offering price in the IPO.

Summary of Methods Used

For each of the valuations, the Company employed a hybrid method to value the Common Stock. The hybrid method is a probability-weighted expected return method ("**PWERM**"), where the equity value in one or more scenarios is calculated using an option pricing method ("**OPM**"), referred to below as a hybrid method ("**Hybrid Method**"). The Hybrid Method is appropriate when various possible future outcomes are assumed by management of the Company. The outcomes are each assigned a probability and a future equity value under each outcome is then estimated. Given that more than one possible future outcome was assumed for each of the valuations, the PWERM was used to value the Common Stock for each valuation date

The Hybrid Method is appropriate for a company expecting a near term liquidity event, but where, due to market or other factors, the likelihood of completing the liquidity event is uncertain. The Hybrid Method considers a company's going concern nature, stage of development and ability to forecast near and long-term future liquidity scenarios. The PWERM is a scenario-based analysis that estimates the value per share of Common Stock based on the probability-weighted present value of expected future equity values for the Common Stock, under various possible future liquidity event scenarios, in light of the rights and preferences of each class and series of stock, discounted for a lack of marketability.

As part of the Hybrid Method, under certain scenarios, the OPM was used to estimate a value for the Company's equity and allocate this value among the Company's securities using the back-solve method for inferring and allocating the equity value predicated on the most recent financing. The OPM is appropriate for a company at an early stage of development and where future liquidity events are difficult to forecast. Application of the OPM back-solve method involves making assumptions for the expected time to liquidity, volatility and risk-free rate and then solving for the value of equity such that the value for the referenced financing equals the amount paid.

Summary of Valuations

In order for the Board to determine the estimated fair value of the Common Stock, the Company obtained independent third-party valuations of its Common Stock as of February 10, 2023 (the "February 2023 Valuation"), February 1, 2024 (the "February 2024 Valuation") and May 31, 2024 (the "May 2024 Valuation"). At each option grant date, the Board considered whether any events occurred that would trigger any material changes to the business or would require adjustment to the estimated fair value from the previous valuation date.

March 2023 - September 2023 Option Grants

For the February 2023 Valuation, the Company employed a Hybrid Method. The Company was valued under two scenarios: (1) the Company completes a successful reverse merger (15% probability); and (2) the Company does not complete a reverse merger and continues to operate as a private company (85% probability). For the February 2023 Valuation, the fair value of the Common Stock under the OPM was determined with reference to the sales price of shares of the Company's Series C redeemable convertible preferred stock, par value \$0.00001 per share, in May 2021 adjusted for a negative market adjustment of 5% after taking into consideration the movement in the market capitalization of the Company's publicly traded competitors from May 2021 to February 2023 and was determined to be \$5.18 per share in the reverse merger scenario (1), with an estimated term of 0.64 years, and \$3.25 per share in the going concern scenario (2), with an estimated term of 2.00 years. A 40.0% discount for lack of marketability ("**DLOM**") was applied to the value of the Common Stock on a marketable basis for scenario (2) to arrive at a probability-weighted fair value of \$2.43 per share of the Common Stock on a minority, non-marketable basis.

March 2024 - April 2024 Option Grants

For the February 2024 Valuation, the Company employed a Hybrid Method. The Company was valued under two scenarios: (1) the Company completes a successful IPO (25% probability); and (2) the Company does not complete an IPO and continues to operate as a private company (75% probability). For the February 2024 Valuation, the fair value of the Common Stock under OPM was determined with reference to the sales price of the shares of the Company's Series D redeemable convertible preferred stock, par value \$ 0.00001 per share, in February 2024 (the "Series D Financing"), and was determined to be \$3.50 per share in the IPO scenario (1), with an estimated term of 0.87 years, and \$2.66 per share in the stay-private scenario (2), with an estimated term of 1.87 years. A 25.0% and 38.5% DLOM to the value of the Common Stock on a marketable basis for scenario (1) and (2), respectively, was applied to arrive at a probability-weighted average fair value of \$1.88 per share for the Common Stock on a minority, non-marketable basis

In April 2024 the Company granted company-wide stock option grants to mitigate dilution from the Series D Financing with an exercise price of \$1.88 per share. The Board believed that it was reasonable to estimate the Common Stock fair value as of April 17, 2024 using the February 2024 valuation, because it was as of a recent date and incorporated the Series D Financing, as well as preliminary discussions with the Board about a possible IPO in the valuation, and therefore the higher probability of successful IPO transaction was already reflected in the value of the Common Stock per the February 2024 valuation. In addition, there were no internal or external developments that would indicate that the fair value of the Common Stock would have significantly increased from February 2024 to the date of the stock option grant in April 2024.

June 2024 – August 2024 Option Grants

For the May 2024 Valuation, the Company employed a Hybrid Method. The Company was valued under two scenarios: (1) the Company completes a successful IPO transaction (60% probability); and (2) the Company does not complete an IPO and continues to operate as a private company (40% probability). The Board believed the increased probability of a successful IPO transaction was reasonable due to the confidential submission of the Registration Statement on May 31, 2024. For the May 2024 Valuation, the fair value of the Common Stock under OPM was determined with reference to the sales price of shares of the Company's Series D redeemable convertible preferred stock, par value \$0.00001 per share, in February 2024 adjusted for a negative market adjustment of 12.5% after taking into consideration the movement in the market capitalization of the Company's publicly traded competitors from February 2024 to May 2024 and was determined to be \$3.90 per share in the IPO scenario (1), with an estimated term of 0.54 years, and \$2.29 per share in the stay-private scenario (2), with an estimated term of 1.54 years. A 21.5% and 39.0% DLOM to the value of the Common Stock on a marketable basis for scenario (1) and (2), respectively, was applied to arrive at a probability-weighted average fair value of \$2.40 per share valuation for the Common Stock on a minority, non-marketable basis.

Comparison to Preliminary Assumed IPO Price

The Company submits that the primary reasons for the difference between the applicable fair value per share used for the stock options granted since January 1, 2023 and the preliminary assumed IPO price, the midpoint of the Preliminary Price Range, are:

Differences in the valuation methodologies, assumptions and inputs used by the underwriters in their valuation analysis discussed with
the Company and used to determine the Preliminary Price Range, which assume a successful IPO as of today's date with no weighting
attributed to any other outcome for the Company's business, such as remaining a privately held company, compared to the valuation
methodologies, assumptions and inputs used in the valuations determined by the Board as described above in connection with the
description of methodologies used.

- The Preliminary Price Range necessarily assumes that the IPO has occurred and a public market for the Common Stock has been created and, therefore, excludes any marketability or liquidity discount for the Common Stock, which was appropriately taken into account in the Board's historical determination of fair value.
- The Preliminary Price Range assumes the conversion of all of the Company's outstanding preferred stock. The Company's redeemable convertible preferred stock currently has substantial economic rights and preferences over the Common Stock. Upon the closing of the IPO, all outstanding shares of the Company's preferred stock will convert into Common Stock, thus eliminating the superior rights and preferences of the redeemable convertible preferred stock as compared to the Common Stock.
- The Company's consideration of various objective and subjective factors in the previous fair value determinations, as described above, that were not applicable to the determination of the Preliminary Price Range.
- The significant benefits the Company expects to accrue as a result of becoming publicly traded through the IPO, including (i) a substantial increase in the Company's cash balances, (ii) anticipated readier access to the public equity markets, at a lower expected cost of capital and with reduced borrowing costs, (iii) the expected increased attractiveness of the Company's equity as a currency to raise capital, compensate employees and other strategic transactions, (iv) the increased visibility with potential acquirors, and (v) the expected increased strategic flexibility and enhanced operational flexibility to potentially obtain regulatory approval for and commercialize the Company's product candidates.
- Favorable feedback from potential investors following the "testing the waters" meetings that occurred from June to August 2024, which suggested that there was investor interest in the Company at a step-up in valuation. This feedback suggests that the market would be receptive to the Company's IPO despite the Company's early stage status of the Company's product candidates.
- The valuations of comparable companies that completed or launched IPOs in 2023 and 2024 to date as well as such companies' performance in the months following their IPOs, which valuations reflected increases from the last private rounds of equity financing prior to such IPOs, i.e. reflecting step-up multiples in the IPO.

The Preliminary Price Range reflects the fact that investors may be willing to purchase shares in the IPO at a per share price that takes into account other factors that were not expressly considered in the Company's prior valuations as a private company, that are not objectively determinable and that valuation models are not able to quantify with any level of certainty.

Conclusion

As such, taking into account all of the above, the Company believes it has fully complied with all applicable rules and regulations for the determination of fair value, including the best practices outlined in the Valuation Guide. The Company also believes that the fair values determined by the Board for the Common Stock underlying each stock option grant are appropriate and demonstrate the Board's consideration of all relevant factors in determining fair value at each valuation date. Accordingly, the Company submits that it believes that its determination of the fair value of the Common Stock for financial reporting purposes is appropriate and it has properly reflected the stock-based compensation expense for its historical grants. The Company also refers you to the discussion of its general approach of determining fair value of equity awards set forth in the Registration Statement under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Estimates—Stock-Based Compensation" for additional background regarding its equity grant valuation methodologies to date.

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

Sincerely,

FENWICK & WEST LLP

/s/ Julia Forbess

Julia Forbess Partner

Cc Kristen Fortney, Chief Executive Officer and President

BioAge Labs, Inc.

Robert Freedman, Esq. Matthew Rossiter, Esq. Michael Pilo, Esq. **Fenwick & West LLP**

Charles S. Kim, Esq. Denny Won, Esq. Divakar Gupta, Esq.

Cooley LLP