

Subject to Completion, Dated January 20, 2026

PRELIMINARY PROSPECTUS SUPPLEMENT
(To Prospectus dated November 25, 2025)

\$75,000,000

BIOAGE

Common Stock

We are offering \$75,000,000 of shares of our common stock.

Our common stock is listed on The Nasdaq Global Select Market under the symbol “BIOA.” The last reported sale price of our common stock on The Nasdaq Global Select Market on January 16, 2026 was \$20.16 per share.

We are an “emerging growth company” and a “smaller reporting company” as those terms are defined under federal securities laws and, as such, we have elected to comply with certain reduced public company reporting requirements for this prospectus and future filings.

Investing in our common stock involves a high degree of risk. See the section titled “[Risk Factors](#)” beginning on page S-7 of this prospectus supplement as well as the risk factors described under the section titled “Risk Factors” contained in our quarterly report on Form 10-Q for the quarter ended September 30, 2025 before investing in our securities.

Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed on the adequacy or accuracy of this prospectus supplement. Any representation to the contrary is a criminal offense.

	Per Share	Total
Public offering price	\$	\$
Underwriting discounts and commissions ⁽¹⁾	\$	\$
Proceeds, before expenses, to BioAge Labs, Inc.	\$	\$

(1) See the section titled “Underwriting” for a description of the compensation payable to the underwriters.

We have granted the underwriters an option for a period of 30 days to purchase up to \$11,250,000 of additional shares of our common stock, at the public offering price, less the underwriting discounts and commissions.

The underwriters expect to deliver the shares against payment in New York, New York on _____, 2026.

Goldman Sachs & Co. LLC

Piper Sandler

Citigroup

Prospectus Supplement dated _____, 2026

The information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are part of an effective registration statement filed with the Securities and Exchange Commission. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities and are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

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Prospectus

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document is part of the registration statement that we filed with the U.S. Securities and Exchange Commission (the “SEC”) using a “shelf” registration process and consists of two parts. The first part is this prospectus supplement, including the documents incorporated by reference, which describes the specific terms of this offering. The second part, the accompanying prospectus, including the documents incorporated by reference, gives more general information, some of which may not apply to this offering. Generally, when we refer only to the “prospectus,” we are referring to both parts combined. This prospectus supplement may add to, update or change information in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement or the accompanying prospectus.

If information in this prospectus supplement is inconsistent with the accompanying prospectus or with any document incorporated by reference that was filed with the SEC before the date of this prospectus supplement, you should rely on this prospectus supplement. This prospectus supplement, the accompanying prospectus and the documents incorporated into each by reference include important information about us, the common stock being offered hereby and other information you should know before investing in our common stock. You should also read and consider information in the documents we have referred you to in the section of this prospectus supplement and the accompanying prospectus entitled “Incorporation of Information by Reference” and “Where You Can Find More Information” as well as any free writing prospectus provided in connection with this offering.

You should rely only on this prospectus supplement, the accompanying prospectus, and any free writing prospectus provided in connection with this offering and the information incorporated or deemed to be incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not authorized, and the underwriters have not authorized, anyone to provide you with information that is in addition to or different from that contained or incorporated by reference in this prospectus supplement, the accompanying prospectus, and any free writing prospectus provided in connection with this offering. If anyone provides you with different or inconsistent information, you should not rely on it, and neither we nor the underwriters take any responsibility for, and provide no assurance as to the reliability of, any other information that others may give you. You should not assume that the information contained or incorporated by reference in this prospectus supplement, the accompanying prospectus, or any free writing prospectus provided in connection with this offering is accurate as of any date other than as of the date of this prospectus supplement, the accompanying prospectus, or such free writing prospectus, as the case may be, or in the case of the documents incorporated by reference, the date of such documents regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or any sale of our common stock. Our business, financial condition, liquidity, results of operations and prospects may have changed since those dates.

We are not offering to sell these shares of common stock in any jurisdiction where the offer or sale is not permitted. The distribution of this prospectus supplement and the offering of the common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement must inform themselves about, and observe any restrictions relating to, the offering of the common stock and the distribution of this prospectus supplement outside the United States. This prospectus supplement does not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

When we refer to “BioAge,” “we,” “our,” “us,” the “Registrant,” the “Company” and “our company” in this prospectus, we mean BioAge Labs, Inc., a Delaware corporation, unless otherwise specified.

The BioAge marks and logos, along with our other registered or common law trade names, trademarks or service marks, appearing in this prospectus are valuable company assets and are the exclusive property of BioAge. Solely for convenience, the trademarks, service marks and trade names referred to in this prospectus

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supplement appear without the ® and ™ symbols, but this should not be interpreted as a waiver of any rights, and we fully reserve the right to assert and protect our intellectual property rights concerning our marks in accordance with applicable laws.

All service marks, trademarks and trade names appearing in this prospectus are the property of their respective owners. Our use of third-party trade names, trademarks or service marks in this prospectus does not imply any affiliation with, endorsement by, or sponsorship by us of those companies.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights information contained elsewhere in this prospectus supplement and does not contain all of the information you should consider in making your investment decision. Because this is only a summary, it does not contain all of the information that may be important to you. You should carefully read this prospectus supplement and the accompanying prospectus, including the documents incorporated by reference herein and therein, including the risk factors and financial statements and related notes incorporated by reference herein and therein. Unless the context otherwise requires, we use the terms “BioAge,” “company,” “we,” “us” and “our” in this prospectus to refer to BioAge Labs, Inc. and its subsidiaries.

Overview

We are a clinical-stage biopharmaceutical company developing therapeutic product candidates for metabolic diseases by targeting the biology of human aging. Our technology platform and differentiated human datasets enable us to identify promising targets based on insights into molecular changes that drive aging.

In January 2025, we announced the nomination of our lead program, BGE-102, a potent, orally available, brain-penetrant small-molecule NLRP3 inhibitor.

In August 2025, we announced that the first patient was dosed in our Phase 1 Single Ascending Dose (“SAD”) / Multiple Ascending Dose (“MAD”) clinical trial for BGE-102.

In December 2025, we announced that BGE-102 was well-tolerated in SAD and initial MAD cohorts, with a pharmacokinetic profile supporting once-daily oral dosing, strong target engagement and high brain penetration as well as the expansion the Phase 1 trial to include MAD cohorts in participants with obesity and elevated hsCRP.

Recent Developments

In January 2026, we announced positive interim data from our ongoing Phase 1 SAD/MAD clinical trial evaluating BGE-102, indication expansion of BGE-102 to patients with diabetic macular edema (“DME”), as well as certain anticipated milestones.

Phase 1 Data for BGE-102

On January 12, 2026, we announced additional positive interim Phase 1 data for BGE-102, a novel brain-penetrant NLRP3 inhibitor, demonstrating potential for best-in-class hsCRP reduction in participants with elevated cardiovascular risk.

- First BGE-102 MAD cohort completed in obese individuals with elevated hsCRP receiving 120 mg once daily QD; demonstrated rapid and profound reduction in inflammatory markers
- BGE-102 achieved 86% reduction in hsCRP at Day 14, with 93% of participants reaching normalized levels (<2 mg/L) and 71% of participants reached <1 mg/L
- BGE-102 demonstrated significant reductions in IL-6, a key driver of systemic inflammation and cardiovascular risk, and fibrinogen, an independent predictor of cardiovascular events
- BGE-102 was well tolerated with a favorable safety profile
- Patent issued covering additional composition of matter and novel NLRP3 binding site

Planned proof-of-concept clinical trial in DME

- On January 20, 2026, we announced indication expansion for oral NLRP3 inhibitor BGE-102, with plans to initiate Phase 1b/2a proof-of-concept (“POC”) clinical trial in patients with DME in mid-2026.
- Growing preclinical and clinical evidence points to central role of the inflammasome in multiple retinal diseases where inflammation is a key feature, including DME
 - In a preclinical model of DME, oral BGE-102 demonstrated dose-dependent preservation of retinal vascular integrity, achieving near-complete protection from vascular leakage and up to 90% preservation of microvascular integrity
- BGE-102 has demonstrated favorable tolerability to date in ongoing Phase 1 trial, with robust reductions in key inflammatory biomarkers including hsCRP, IL-6, and IL-1β
- POC trial in DME is designed to demonstrate ocular target engagement, supporting future development across inflammation-driven retinal diseases

Anticipated Clinical Milestones for BGE-102

- **1H 2026:** Completion of Phase 1 trial with full data readout, including two additional MAD cohorts in obese participants with elevated hsCRP
- **1H 2026:** Initiation of Phase 2a POC trial in patients with obesity and cardiovascular (“CV”) risk factors. The trial is planned to enroll approximately 100 patients randomized 1:1 to BGE-102 monotherapy or placebo for 12 weeks. The anticipated primary endpoint is percent change in hsCRP. The trial will also assess inflammatory and metabolic biomarkers, and will include liver MRI.
- **Mid-2026:** Initiation of Phase 1b/2a POC trial in patients with DME
- **2H 2026:** CV risk Phase 2a POC trial data readout
- **Mid-2027:** DME Phase 1b/2a POC trial data readout

We are also developing novel apelin receptor APJ agonists for obesity, including programs targeting both oral and parenteral (subcutaneous) administration. In preclinical obesity models, APJ agonism has demonstrated the ability to more than double the weight loss induced by a GLP-1R agonist while also restoring healthy body composition and improving muscle function. In June 2025, we announced an option agreement with JiKang Therapeutics for a novel APJ agonist antibody, as well as the filing of a U.S. provisional patent for novel small molecule APJ agonists. We intend to file INDs for both the oral and parenteral APJ programs by 2026 year end.

Certain Preliminary Financial Information (Unaudited)

As of December 31, 2025, we estimate that we had approximately \$285.1 million in cash, cash equivalents and marketable securities. This estimate of our cash, cash equivalents and marketable securities balance is preliminary and subject to completion of our financial closing procedures, including the completion of management’s reviews. Accordingly, the unaudited preliminary cash, cash equivalents and marketable securities balance set forth above reflects our preliminary estimate with respect to such information, based on information currently available to management, and may vary from our actual financial position as of December 31, 2025. Further, this preliminary estimate is not a comprehensive statement or estimate of our financial results or financial condition as of December 31, 2025. The unaudited preliminary cash, cash equivalents and marketable

securities balance included in this prospectus supplement has been prepared by, and is the responsibility of, our management. KPMG LLP has not audited, reviewed, examined, compiled, nor applied agreed-upon procedures with respect to the preliminary financial data. Accordingly, KPMG LLP does not express an opinion or any other form of assurance with respect thereto. It is possible that we may identify items that require us to make adjustments to the financial information set forth above. This preliminary estimate should not be viewed as a substitute for financial statements prepared in accordance with generally accepted accounting principles in the United States and it is not necessarily indicative of the balance to be achieved in any future period. Additional information and disclosure would be required for a more complete understanding of our financial position and results of operations as of December 31, 2025. Accordingly, you should not place undue reliance on this preliminary estimate. This preliminary estimate should be read together with the sections titled “Risk Factors” and “Special Note Regarding Forward-Looking Statements,” and under similar headings included in this prospectus supplement, the accompanying prospectus and in the documents incorporated by reference into this prospectus supplement and in the accompanying prospectus as well as our financial statements, related notes and other financial information incorporated by reference in this prospectus supplement and in the accompanying prospectus.

Corporate Information

We were incorporated under the laws of the State of Delaware on April 1, 2015, under the name BioAge Labs, Inc.

Our principal executive offices are located at 5885 Hollis Street, Suite 370, Emeryville, California 94608, and our telephone number is (510) 806-1445. Our website address is <https://bioagelabs.com>. The information contained on, or that can be accessed through, our website is not part of, and is not incorporated by reference into, this prospectus supplement, and you should not consider it part of this prospectus supplement. We have included our website address in this prospectus solely as an inactive textual reference. Investors should not rely on any such information in deciding whether to purchase our securities.

Implications of Being an Emerging Growth Company and a Smaller Reporting Company

We qualify as an “emerging growth company” as defined in Rule 405 of the Securities Act. An emerging growth company may take advantage of relief from certain reporting requirements and other burdens that are otherwise applicable generally to public companies. These provisions include:

- an exception from compliance with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended;
- reduced disclosure about our executive compensation arrangements in our periodic reports, proxy statements and registration statements, including an exemption from complying with new pay versus performance disclosure requirements; and
- exemptions from the requirements of holding non-binding advisory votes on executive compensation or golden parachute arrangements.

In addition, an emerging growth company can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards. In other words, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. Any decision to opt out of the extended transition period for complying with new or revised accounting standards is irrevocable. We have elected to use this extended transition period.

We will cease to be an emerging growth company upon the earliest of (i) December 31, 2029; (ii) the last day of the fiscal year during which our annual gross revenues are \$1.235 billion or more; (iii) the date on which we have, during the previous three-year period, issued more than \$1.0 billion in non-convertible debt securities; and (iv) the end of any fiscal year in which the market value of our common stock held by non-affiliates exceeded \$700.0 million as of the end of the second quarter of that fiscal year. We may choose to take advantage of some or all of these reduced reporting burdens.

In addition, we are also a “smaller reporting company,” as defined in Rule 405 under the Securities Act. We may continue to be a smaller reporting company in any given year if either (i) the market value of our stock held by non-affiliates is less than \$250.0 million as of June 30 in the most recently completed fiscal year or (ii) our annual revenue is less than \$100.0 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates is less than \$700.0 million as of June 30 in the most recently completed fiscal year. If we are a smaller reporting company at the time we cease to be an emerging growth company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation.

THE OFFERING

Common stock offered by us	\$75,000,000 of shares.
Underwriters' option to purchase additional shares	We have granted the underwriters an option, exercisable for 30 days after the date of this prospectus supplement, to purchase up to an additional \$11,250,000 of shares.
Common stock to be outstanding immediately after this offering	_____ shares (or _____ shares if the underwriters exercise their option to purchase additional shares in full).
Use of proceeds	<p>We estimate that the net proceeds from this offering will be approximately \$ _____ million (or approximately \$ _____ million if the underwriters exercise their option to purchase additional shares in full) based on the public offering price of \$ _____ per share, after deducting the underwriting discounts and commissions and estimated offering expenses.</p> <p>We currently intend to use the net proceeds from this offering, together with our existing cash, cash equivalents and marketable securities, to fund research, clinical and process development and manufacturing of our product candidates, including BGE-102 and further development of our NLRP3 and APJ programs, working capital, capital expenditures, reduction of indebtedness and other general corporate purposes. See "Use of proceeds."</p>
Risk factors	You should read the section titled "Risk Factors" in this prospectus supplement and the accompanying prospectus and in the documents incorporated by reference herein and therein for a discussion of factors to consider carefully before deciding to invest in shares of our common stock.
Nasdaq Global Select Market symbol	"BIOA"

The number of shares of our common stock shown above to be outstanding after this offering is based on 35,850,037 shares of our common stock outstanding as of September 30, 2025, and excludes:

- 1,400,000 shares of common stock issued pursuant to our existing at-the-market sales offering ("ATM") after September 30, 2025.
- 8,114,827 shares of common stock issuable upon the exercise of stock options outstanding as of September 30, 2025, with a weighted-average exercise price of \$7.69 per share;
- 8,040 shares of common stock issuable upon the exercise of stock options granted after September 30, 2025, with a weighted-average exercise price of \$15.61 per share;
- 6,722 shares of common stock issuable upon exercise of a warrant outstanding as of September 30, 2025, with an exercise price of \$3.22 per share;
- 24,968 shares of common stock issuable upon exercise of warrants outstanding as of September 30, 2025, with an exercise price of \$10.27 per share; and

- 2,753,369 shares of common stock reserved and available for future issuance as of September 30, 2025, under our equity incentive plans, consisting of (i) 2,064,869 shares of common stock reserved and available for future issuance under our 2024 Equity Incentive Plan (“2024 EIP”) as of September 30, 2025 (which number is prior to the awards granted after September 30, 2025 in the preceding bullet) and (ii) 688,500 shares of common stock reserved for issuance under our 2024 Employee Stock Purchase Plan (“2024 ESPP”) as of September 30, 2025.

Except as otherwise indicated, all information in this prospectus supplement does not assume or give effect to any exercise of outstanding options after September 30, 2025 and assumes no exercise by the underwriters of their option to purchase up to an additional shares of our common stock from us in this offering.

RISK FACTORS

Investing in our common stock involves a high degree of risk. Before making your decision to invest in shares of our common stock, you should carefully consider the risks described below and in Part II, Item 1A, "Risk Factors," in our Quarterly Report on Form 10-Q for the period ended September 30, 2025, which is incorporated herein by reference, and may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. We cannot assure you that any of the events discussed below and incorporated by reference into this prospectus supplement will not occur. These events could have a material and adverse impact on our business, financial condition, results of operations and prospects. If that were to happen, the trading price of our common stock could decline, and you could lose all or part of your investment.

Risks Related to This Offering

Our quarterly operating results may fluctuate significantly or may fall below the expectations of investors or securities analysts, each of which may cause our stock price to fluctuate or decline.

We expect our operating results to be subject to quarterly fluctuations. Our net loss and other operating results will be affected by numerous factors, including:

- timing and variations in the level of expense related to the current or future development of our programs;
- timing and status of enrollment for our clinical trials;
- results of clinical trials, or the addition or termination of clinical trials or funding support by us or potential future partners;
- our execution of any collaboration, licensing or similar arrangements, and the timing of payments we may make or receive under existing or future arrangements or the termination or modification of any such existing or future arrangements;
- any intellectual property infringement, misappropriation or violation, lawsuit or opposition, interference or cancellation proceeding in which we may become involved;
- additions and departures of key personnel;
- strategic decisions by us or our competitors, such as acquisitions, divestitures, spin-offs, joint ventures, strategic investments or changes in business strategy;
- if any product candidate we may develop receives regulatory approval, the timing and terms of such approval and market acceptance and demand for such product candidates;
- the timing and cost to establish a sales, marketing and distribution infrastructure to commercialize any products for which we may obtain marketing approval and intend to commercialize on our own or jointly with future collaborators;
- regulatory developments affecting current or future product candidates or those of our competitors;
- changes in general market and economic conditions, such as due to rising interest rates, inflation, recent turmoil in the global banking system, the war in Ukraine and public health epidemics; and
- business development activities, such as additional program in-licensing, which could result in up-front payments or increased development expenses.

If our quarterly operating results fall below the expectations of investors or securities analysts, the price of our common stock could decline substantially. Furthermore, any quarterly fluctuations in our operating results may, in turn, cause the price of our common stock to fluctuate substantially. We believe that quarterly comparisons of our financial results are not necessarily meaningful and should not be relied upon as an indication of our future performance.

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The market price of our common stock is likely to be highly volatile which could result in substantial losses for purchasers of our common stock.

The market price of our common stock is likely to continue to be highly volatile and subject to wide fluctuations in response to various factors, some of which we cannot control. As a result of this volatility, you may not be able to sell your shares of common stock at or above the price paid. The market price for our common stock may be influenced by many factors, including the other risks described in this “Risk Factors” section and the following:

- results of preclinical studies or clinical trials by us or those of our competitors or by existing or future collaborators or licensing partners;
- the timing and enrollment status of our clinical trials;
- changes in the development status of our product candidates, including variations in the level of expense related to the development of our programs or funding support by us or by existing or future collaborators or licensing partners;
- regulatory or legal developments in the United States and other countries, especially changes in laws or regulations applicable to our business;
- the success of competitive products or technologies;
- introductions and announcements of new product candidates by us, our future collaboration partners, or our competitors, and the timing of these introductions or announcements;
- actions taken by regulatory agencies with respect to our product candidates, clinical studies, manufacturing process or sales and marketing terms;
- our execution of any collaboration, licensing or similar arrangements, and the timing of payments we may make or receive under existing or future arrangements or the termination or modification of any such existing or future arrangements;
- actual or anticipated variations in our financial results or those of companies that are perceived to be similar to us;
- the success of our efforts to acquire or in-license additional technologies or product candidates;
- announced or completed significant acquisitions, strategic collaborations, joint ventures or capital commitments by us or our competitors;
- developments or disputes concerning our intellectual property and proprietary rights;
- the recruitment or departure of key personnel;
- changes in the structure of healthcare payment systems;
- actual or anticipated changes in earnings estimates or changes in stock market analyst recommendations regarding our common stock, other comparable companies or our industry generally;
- our failure or the failure of our competitors to meet analysts’ projections or guidance that we or our competitors may give to the market;
- speculation in the press or investment community;
- share price and fluctuations of trading volume of our common stock;
- the impact of interest rate increases on the overall stock market and the market for biopharmaceutical company stocks;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;

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- sales of shares of our common stock by us, including sales pursuant to “at the market” offerings, insiders or our stockholders;
- our ability or inability to raise additional capital and the terms on which we raise it;
- the concentrated ownership of our common stock;
- changes in accounting principles;
- natural disasters, terrorist acts, acts of war and other calamities;
- general economic, industry and market conditions, including rising interest rates, inflation, and turmoil in the global banking system, many of which are beyond our control; and
- other events or factors, including those resulting from global pandemics, war, incidents of terrorism or responses to these events, including those related to the conflict in Ukraine.

In addition, the stock market in general, and the markets for pharmaceutical, biopharmaceutical and biotechnology stocks in particular, have experienced extreme price and volume fluctuations, including as a result of increases in inflation and changes in interest rates, and disruptions to the supply chain, that have been often unrelated or disproportionate to the operating performance of the issuer. Furthermore, the trading price of our common stock may be adversely affected by third parties trying to drive down the market price. Short sellers and others, some of whom post anonymously on social media, may be positioned to profit if our stock declines and their activities can negatively affect our stock price. These broad market and industry factors may seriously harm the market price of our common stock, regardless of our actual operating performance. The realization of any of the above risks or any of a broad range of other risks, including those described in this “Risk Factors” section, could have a dramatic and adverse impact on the market price of our common stock.

In the past, securities class action litigation has often been brought against public companies following declines in the market price of their securities. This risk is especially relevant for biopharmaceutical companies, which have experienced significant stock price volatility in recent years. If we face such litigation, it could result in substantial costs and a diversion of management’s attention and our resources, which could harm our business.

You will suffer immediate and substantial dilution as a result of this offering and may experience additional dilution in the future.

You will suffer immediate and substantial dilution in the net tangible book value of our common stock that you purchase in this offering. At the public offering price of \$ _____ per share, purchasers of common stock in this offering will experience immediate dilution of \$ _____ per share in net tangible book value of our common stock (or \$ _____ per share if the underwriters exercise their option to purchase additional shares in full). In the past, we issued options to acquire common stock at prices below the public offering price. To the extent these outstanding securities are ultimately exercised, investors purchasing common stock in this offering will sustain further dilution. For a further description of the dilution you will experience immediately after this offering, see the section titled “Dilution.”

Future sales and issuances of our common stock or rights to purchase common stock, including pursuant to our equity incentive plans, could result in additional dilution of the percentage ownership of our stockholders and may cause the price of our common stock to decline.

We expect that significant additional capital may be needed in the future to continue our planned operations, including conducting our planned clinical trials, manufacturing and commercialization efforts, expanded research and development activities and costs associated with operating as a public company. To raise capital, we may sell common stock, convertible securities or other equity securities in one or more transactions at prices and in a manner we determine from time to time, including pursuant to “at-the-market” offerings. These sales, or the perception in the market that the holders of a large number of shares intend to sell shares, could

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reduce the market price of our common stock. After this offering, we will have _____ shares of common stock outstanding based on the number of shares outstanding as of September 30, 2025. This includes the _____ shares that we sell in this offering, which may be resold in the public market immediately without restriction, unless they were purchased in this offering by our affiliates, as that term is defined in Rule 144 under the Securities Act of 1933, as amended (the “Securities Act”), in which case they would only be able to be sold in compliance with the requirements of Rule 144.

In connection with this offering, subject to certain exceptions, we, all of our directors and executive officers, and certain of our significant stockholders, have agreed not to offer, sell, or agree to sell, directly or indirectly, any shares of common stock without the permission of Goldman Sachs & Co. LLC, Piper Sandler & Co. and Citigroup Global Markets Inc. for a period of 60 days from the date of this prospectus supplement.

We have broad discretion in the use of the net proceeds from this offering and may not use them effectively.

Our management has broad discretion in the application of the net proceeds from this offering, and you will not have the opportunity as part of your investment decision to assess whether the net proceeds are being used appropriately. Our management could spend the net proceeds from this offering in ways that do not improve our results of operations or enhance the value of our common stock. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business, cause the price of our securities to decline and delay the development of BGE-102 or any future product candidates. Pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and documents incorporated herein by reference contain “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements involve a number of risks and uncertainties. We caution readers that any forward-looking statement is not a guarantee of future performance and that actual results could differ materially from those contained in the forward-looking statement. These statements are based on current expectations of future events.

All statements other than statements of historical facts contained in this prospectus supplement are forward-looking statements. In some cases, you can identify forward-looking statements by terms such as “aim,” “may,” “will,” “should,” “expect,” “forecast,” “plan,” “anticipate,” “could,” “intend,” “target,” “project,” “contemplate,” “believe,” “estimate,” “predict,” “potential” or “continue” or the negative of these terms or other similar expressions, although not all forward-looking statements contain these words. All statements other than statements of historical fact contained in this prospectus supplement, including without limitation statements regarding our plans to develop and commercialize our product candidates, the potential for BGE-102 as a treatment for obesity and cardiovascular risk factors, the timing and results of our ongoing or planned preclinical studies and clinical trials, risks associated with clinical trials, including our ability to adequately manage clinical activities for BGE-102 and our APJ program, unexpected concerns that may arise from additional data or analysis obtained during clinical trials, the timing of and our ability to obtain and maintain regulatory approvals, the clinical utility of our product candidates, our commercialization, marketing and manufacturing capabilities and strategy, our expectations about the willingness of healthcare professionals to use our product candidates, the sufficiency of our cash, cash equivalents, and marketable securities, general economic, industry and market conditions, including fluctuating interest rates and inflation, cybersecurity incidents, significant political, trade or regulatory developments, including tariffs or shifting priorities within the U.S. Food and Drug Administration, and global regional conflicts on our operations and the receipt and timing of potential regulatory designations, approvals and commercialization of BGE-102 or any future product candidates, and the plans and objectives of management for future operations and capital expenditures are forward-looking statements.

These forward-looking statements are based on the current beliefs and expectations of our management and are subject to significant risks and uncertainties. If underlying assumptions prove inaccurate or unknown risks or uncertainties materialize, actual results may differ materially from current expectations and projections. Factors that might cause such a difference include those discussed in our most recent Annual Report on Form 10-K and our subsequent Quarterly Reports on Form 10-Q, and other reports we file (not furnish) with the SEC in the future, as well as those discussed in this prospectus, any accompanying prospectus supplement, the documents incorporated by reference herein and therein and any free writing prospectus. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this prospectus supplement or, in the case of any accompanying prospectus supplement or documents referred to or incorporated by reference, the date of those documents.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus supplement, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and you are cautioned not to unduly rely upon these statements.

All subsequent written or oral forward-looking statements attributable to us or any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. We do not undertake any obligation to release publicly any revisions to these forward-looking statements to reflect events or circumstances after the date of this prospectus supplement or to reflect the occurrence of unanticipated events, except as may be required under applicable U.S. securities law. If we do update one or more forward-looking statements, no inference should be drawn that we will make additional updates with respect to those or other forward-looking statements.

USE OF PROCEEDS

We estimate that the net proceeds from our sale of \$75,000,000 of shares of our common stock in this offering at the public offering price of \$ _____ per share, after deducting the underwriting discounts and commissions and estimated offering expenses, will be approximately \$ _____ million. If the underwriters' option to purchase additional shares is exercised in full, we estimate that we will receive net proceeds of approximately \$ _____ million, after deducting the underwriting discounts and commissions and estimated offering expenses.

We currently intend to use the net proceeds from this offering, together with our existing cash, cash equivalents and marketable securities, to fund research, clinical and process development and manufacturing of our product candidates, including BGE-102 and further development of our NLRP3 and APJ programs, working capital, capital expenditures, repayment of indebtedness and other general corporate purposes.

Based on our planned use of the net proceeds, we estimate such funds, together with our existing cash, cash equivalents and marketable securities, will be sufficient for us to fund our operating expenses and capital expenditure requirements through 2029. We have based this estimate on assumptions that may prove to be wrong, and we could use our capital resources sooner than we currently expect. In addition, we may seek additional capital due to favorable market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans.

The expected use of the net proceeds to us from this offering represents our intentions based upon our current plans and business conditions. As of the date of this prospectus supplement, we cannot predict with any certainty all of the particular uses for the net proceeds or the amounts that we will actually spend on the uses set forth above. We may use a portion of the net proceeds to us from this offering for the acquisition of, or investment in, technologies, intellectual property or businesses that complement our business, although we have no present commitments or agreements to this effect.

The amounts and timing of our future expenditures and the extent of drug candidate development may vary significantly depending on numerous factors, including the status, results and timing of our current preclinical studies and clinical trials and those we may commence in the future, product approval process with the FDA and other regulatory agencies, our current collaborations and any new collaborations we may enter into with third parties and any unforeseen cash needs. As a result, our board of directors and management will retain broad discretion over the allocation of the net proceeds to us from this offering.

The expected net proceeds to us from this offering will not be sufficient for us to fund our current product candidate, BGE-102, or any future product candidates, through regulatory approval, and we will need to raise substantial additional capital to complete the development and commercialization of BGE-102 and any future product candidates.

Pending their use as described above, we intend to invest the net proceeds to us from this offering in marketable securities that may include investment-grade interest-bearing securities, money market accounts, certificates of deposit, commercial paper and guaranteed obligations of the U.S. government.

DIVIDEND POLICY

We have never declared or paid cash dividends on our common stock. We currently intend to retain all available funds and any future earnings for use in the operation of our business and do not anticipate paying any cash dividends on our common stock in the foreseeable future. Any future determination to declare dividends will be made at the discretion of our board of directors and will depend on our financial condition, operating results, capital requirements, general business conditions and other factors that our board of directors may deem relevant.

DILUTION

If you invest in our common stock in this offering, your ownership interest will be diluted to the extent of the difference between the public offering price per share of common stock in this offering and the as adjusted net tangible book value per share of common stock immediately after this offering.

As of September 30, 2025, our historical net tangible book value was approximately \$277.5 million, or approximately \$7.74 per share of common stock. Net tangible book value per share represents the amount of our tangible assets less our liabilities divided by the total number of shares of our common stock outstanding as of September 30, 2025.

After giving effect to the sale of _____ shares of our common stock at the public offering price of \$ _____ per share, and after deducting underwriting discounts and commissions and estimated offering expenses, our as adjusted net tangible book value as September 30, 2025 would have been approximately \$ _____ million, or \$ _____ per share of our common stock. This represents an immediate increase in as adjusted net tangible book value of \$ _____ per share to our existing stockholders and an immediate dilution of \$ _____ per share to investors purchasing shares in this offering, as follows:

Public offering price per share	\$
Net tangible book value per share as of September 30, 2025	\$7.74
Increase in as adjusted net tangible book value per share attributable to this offering	\$
As adjusted net tangible book value per share after giving effect to this offering	\$
Dilution per share to new investors participating in this offering	\$

If the underwriters exercise their option in full to purchase additional shares, our as adjusted net tangible book value per share after this offering would be \$ _____ per share, and the dilution in net tangible book value per share to new investors participating in this offering would be \$ _____ per share.

The foregoing tables and calculations (other than the historical net tangible book value calculation) are based on 35,850,037 shares of our common stock outstanding as of September 30, 2025 and exclude:

- 1,400,000 shares of common stock issued pursuant to our existing ATM after September 30, 2025.
- 8,114,827 shares of common stock issuable upon the exercise of stock options outstanding as of September 30, 2025, with a weighted-average exercise price of \$7.69 per share;
- 8,040 shares of common stock issuable upon the exercise of stock options granted after September 30, 2025, with a weighted-average exercise price of \$15.61 per share;
- 6,722 shares of common stock issuable upon exercise of a warrant outstanding as of September 30, 2025, with an exercise price of \$3.22 per share;
- 24,968 shares of common stock issuable upon exercise of warrants outstanding as of September 30, 2025, with an exercise price of \$10.27 per share; and
- 2,753,369 shares of common stock reserved and available for future issuance as of September 30, 2025, under our equity incentive plans, consisting of (i) 2,064,869 shares of common stock reserved and available for future issuance under our 2024 EIP as of September 30, 2025 (which number is prior to the awards granted after September 30, 2025 in the preceding bullet) and (ii) 688,500 shares of common stock reserved for issuance under our 2024 ESPP as of September 30, 2025.

To the extent that outstanding options or warrants are exercised or settled, you may experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that we raise additional capital by issuing equity or convertible debt securities, your ownership will be further diluted.

UNDERWRITING

We and the underwriters named below have entered into an underwriting agreement with respect to the shares being offered. Subject to certain conditions, each underwriter has severally agreed to purchase the number of shares indicated in the following table. Goldman Sachs & Co. LLC, Piper Sandler & Co. and Citigroup Global Markets Inc. are the representatives of the underwriters (the “Representatives”).

<u>Underwriter</u>	<u>Number of Shares</u>
Goldman Sachs & Co. LLC	
Piper Sandler & Co	
Citigroup Global Markets Inc	
Total	

The underwriters are committed to take and pay for all of the shares being offered, if any are taken, other than the shares covered by the option described below unless and until this option is exercised.

The underwriters have an option to buy up to an additional _____ shares of our common stock from us. They may exercise that option for 30 days. If any shares are purchased pursuant to this option, the underwriters will severally purchase shares in approximately the same proportion as set forth in the table above.

The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters by us. Such amounts are shown assuming both no exercise and full exercise of the underwriters’ option to purchase up to an additional _____ shares of our common stock from us.

	<u>No Exercise</u>	<u>Full Exercise</u>
Per Share	\$	\$
Total	\$	\$

Shares sold by the underwriters to the public will initially be offered at the public offering price set forth on the cover of this prospectus supplement. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to \$ _____ per share from the public offering price. After the initial offering of the shares, the Representatives may change the offering price and the other selling terms. The offering of the shares by the underwriters is subject to receipt and acceptance and subject to the underwriters’ right to reject any order in whole or in part.

We have agreed with the underwriters, subject to certain exceptions, during the period from the date of this prospectus supplement continuing through the date 60 days after the date of this prospectus supplement (the “restricted period”), not to (i) offer, sell, contract to sell, pledge, grant any option to purchase, loan, hedge, make any short sale or otherwise transfer or dispose of, directly or indirectly, or file with or confidentially submit to the SEC a registration statement under the Securities Act relating to, any securities of the Company that are substantially similar to our shares of common stock offered in this offering, including but not limited to any options or warrants to purchase shares of our common stock or any securities that are convertible into or exchangeable for, or that represent the right to receive, shares of our common stock or any such substantially similar securities, (ii) enter into any hedging, swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of our common stock or any such other securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of shares of our common stock or such other securities, in cash or otherwise (other than the shares of our common stock to be sold hereunder or pursuant to employee stock option plans existing on, or upon the conversion or exchange of convertible or exchangeable securities outstanding as of, the date of this prospectus supplement) or (iii) publicly disclose the intention to do any of the foregoing, in each case, without the prior written consent of the Representatives; *provided, however*, that we may (i) effect the transactions contemplated hereby, (ii) issue and sell shares of our common stock, or any securities convertible into or exercisable or exchangeable for shares of our common stock, any stock option

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plan, incentive plan, employee stock purchase plan, stock bonus plan, stock ownership plan, dividend reinvestment plan or other plan or arrangement described in this prospectus supplement or the registration statement of which it forms a part (collectively, the “Company Plans”), (iii) issue shares of our common stock issuable upon the conversion of securities or the exercise of warrants or options or the settlement of restricted stock units outstanding as of the date of this prospectus supplement and described herein or in the base prospectus or the registration statement of which they form a part or issued thereafter pursuant to any Company Plan, (iv) file one or more registration statements on Form S-8 relating to any Company Plan, and (v) issue shares of our common stock, or any securities convertible into or exercisable for shares of our common stock, or enter into an agreement to issue shares of our common stock, or any securities convertible into or exercisable or exchangeable for shares of our common stock, in connection with any bona fide merger, joint venture, strategic alliance, commercial or other collaborative transaction, or the acquisition or license by us of the business, property, technology or other assets of another individual or entity that is an unaffiliated third party of us, or the assumption of an employee benefit plan in connection with such a merger or acquisition, provided, however, that the aggregate number of shares of our common stock, or securities convertible into or exercisable or exchangeable for shares of our common stock, that we may issue or agree to issue pursuant to this clause (vi) shall not exceed 5% of the total outstanding shares of our common stock immediately following the issuance of the shares of our common stock contemplated hereby, and provided, further, that the recipients of such securities issued pursuant to clauses (ii)-(v) provide to the Representatives a signed lock-up agreement.

Our executive officers, directors and certain of our securityholders have agreed with the underwriters, subject to certain exceptions, during the restricted period, not to and not to cause or direct any of their affiliates to (i) offer, sell, contract to sell, pledge, grant any option, right or warrant to purchase, purchase any option or contract to sell, lend or otherwise transfer or dispose of any shares of common stock, or any options or warrants to purchase any shares of common stock, or any securities convertible into, exchangeable for or that represent the right to receive shares of common stock (such shares of common stock, options, rights, warrants or other securities, collectively, “Lock-Up Securities”), including without limitation any such Lock-Up Securities now owned or hereafter acquired by the securityholder, (ii) engage in any hedging or other transaction or arrangement (including, without limitation, any short sale or the purchase or sale of, or entry into, any put or call option, or combination thereof, forward, swap or any other derivative transaction or instrument, however described or defined) which is designed to or which reasonably could be expected to lead to or result in a sale, loan, pledge or other disposition (whether by the securityholder or someone other than the securityholder), or transfer of any of the economic consequences of ownership, in whole or in part, directly or indirectly, of any Lock-Up Securities, whether any such transaction or arrangement (or instrument provided for thereunder) would be settled by delivery of common stock or other securities, in cash or otherwise, (iii) make any demand for or exercise any right with respect to the registration of any Lock-Up Securities or (iv) otherwise publicly announce any intention to engage in or cause any action, activity, transaction or arrangement described in clause (i), (ii) or (iii) above.

Notwithstanding the foregoing, the securityholder may transfer or otherwise dispose of the securityholder’s shares of our common stock, subject in certain cases to various conditions, to certain transactions, including that securityholder may:

- (a) Transfer or distribute the securityholder’s Lock-Up Securities (i) as one or more bona fide gifts or charitable contributions, or for bona fide estate planning purposes, (ii) upon death by will, testamentary document or the laws of intestate succession, (iii) if the securityholder is a natural person, to any member of the securityholder’s immediate family or to any trust for the direct or indirect benefit of the securityholder or the immediate family of the securityholder or, if the securityholder is a trust, to a trustor or beneficiary of the trust or the estate of a beneficiary of such trust, (iv) to a corporation, partnership, limited liability company or other entity of which the securityholder and the immediate family of the securityholder are the legal and beneficial owner of all of the outstanding equity securities or similar interests, (v) to a nominee or custodian of a person or entity to whom a disposition or transfer would be permissible under clauses (a)(i) through (iv) above, (vi) if the securityholder is a corporation, partnership, limited liability company or other business entity, (A) to another corporation, partnership, limited liability

company or other business entity that is an affiliate (as defined in Rule 405 under the Securities Act) of the securityholder, (B) to any investment fund or other entity which fund or entity is controlled or managed by the securityholder or affiliates of the securityholder, or (C) as part of a distribution by the securityholder to its stockholders, partners, members or other equityholders or to the estate of any such stockholders, partners, members or other equityholders of the securityholder, (vii) by operation of law, such as pursuant to a qualified domestic order, divorce settlement, divorce decree or separation agreement, (viii) to us from an employee of ours upon death, disability or termination of employment, in each case, of such employee, (ix) if the securityholder is not one of our officers or directors, in connection with a sale of the securityholder's shares of common stock acquired (A) from the Underwriters in this offering or (B) in open market transactions on or after the closing date of this offering, (x) to us in connection with the vesting, settlement or exercise of restricted stock units, options, warrants or other rights to purchase shares of common stock (including, in each case, by way of "net" or "cashless" exercise) that are scheduled to expire or automatically vest during the restricted period, including any transfer to us for the payment of tax withholdings or remittance payments due as a result of the vesting, settlement or exercise of such restricted stock units, options, warrants or other rights, or in connection with the conversion of convertible securities, in all such cases pursuant to equity awards granted under a stock incentive plan or other equity award plan, or pursuant to the terms of convertible securities, each as described in or filed as an exhibit to the registration statement of which this prospectus supplement forms a part, this prospectus supplement immediately prior to the time the underwriting agreement is executed, provided that any securities received upon such vesting, settlement, exercise or conversion shall be subject to the terms of a lock-up agreement, (xi) with the prior written consent of the Representatives, or (xii) pursuant to a contract, instruction or plan that met the requirements of Rule 10b5-1 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), on the date such contract, instruction or plan was entered into or adopted (a "10b5-1 Plan"); provided that such 10b5-1 Plan was established prior to the execution of a lock-up agreement by the securityholder, the existence and details of such 10b5-1 Plan were communicated to the Representatives and such 10b5-1 Plan will not be amended or otherwise modified during the restricted period; provided, further, that any filing under Section 16(a) of the Exchange Act in connection with such transfer shall indicate, to the extent permitted by such section and the related rules and regulations, that such transfer was pursuant to a 10b5-1 Plan; provided that (A) in the case of clauses (a)(i), (ii), (iii), (iv), (v) and (vi) above, such transfer or distribution shall not involve a disposition for value, (B) in the case of clauses (a)(i), (ii), (iii), (iv), (v), (vi) and (vii) above, it shall be a condition to the transfer or distribution that the donee, devisee, transferee or distributee, as the case may be, shall sign and deliver a lock-up agreement, (C) in the case of clauses (a)(ii), (iii), (iv), (v) and (vi) above, no filing by any party (including, without limitation, any donor, donee, devisee, transferor, transferee, distributor or distributee) under the Exchange Act, or other public filing, report or announcement reporting a reduction in beneficial ownership of Lock-Up Securities shall be required or shall be voluntarily made in connection with such transfer or distribution, and (D) in the case of clauses (a)(i), (vii), (viii), (ix) and (x) above, no filing under the Exchange Act or other public filing, report or announcement shall be voluntarily made, and if any such filing, report or announcement shall be legally required during the restricted period, such filing, report or announcement shall clearly indicate in the footnotes thereto (A) the circumstances of such transfer or distribution and (B) in the case of a transfer or distribution pursuant to clauses a(i) or (vii) above, that the donee, devisee, transferee or distributee has agreed to be bound by a lock-up agreement;

- (b) enter into or amend a written plan meeting the requirements of Rule 10b5-1 under the Exchange Act relating to the transfer, sale or other disposition of the securityholder's Lock-Up Securities, if then permitted by the Representatives, provided that none of the securities subject to such plan may be transferred, sold or otherwise disposed of until after the expiration of the restricted period and any required public disclosure, announcement, report, or filing under the Exchange Act made

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by us or any person regarding the establishment or amendment of such plan during the restricted period shall include a statement that the securityholder is not permitted to transfer, sell or otherwise dispose of securities under such plan during the restricted period in contravention of the lock-up agreement, and no public announcement, report or filing under the Exchange Act, or any other public filing, report or announcement, shall be voluntarily made regarding the establishment or amendment of such plan, during the restricted period; and

- (c) transfer the securityholder's Lock-Up Securities pursuant to a bona fide third-party tender offer, merger, consolidation or other similar transaction that is approved by our board of directors (or a duly authorized committee thereof) and made to all holders of our capital stock involving a change of control (for purposes hereof, change of control shall mean the transfer (whether by tender offer, merger, consolidation or other similar transaction), in one transaction or a series of related transactions, to a person or group of affiliated persons, of shares of capital stock if, after such transfer, such person or group of affiliated persons would hold at least a majority of our outstanding voting securities (or the surviving entity)); provided that in the event that such tender offer, merger, consolidation or other similar transaction is not completed, the securityholder's Lock-Up Securities shall remain subject to the provisions a lock-up agreement.

Our common stock is listed on the Nasdaq Global Market under the symbol "BIOA."

In connection with the offering, the underwriters may purchase and sell shares of our common stock in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering, and a short position represents the amount of such sales that have not been covered by subsequent purchases. A "covered short position" is a short position that is not greater than the amount of additional shares for which the underwriters' option described above may be exercised. The underwriters may cover any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to cover the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase additional shares pursuant to the option described above. "Naked" short sales are any short sales that create a short position greater than the amount of additional shares for which the option described above may be exercised. The underwriters must cover any such naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the Representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Purchases to cover a short position and stabilizing transactions, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of our common stock, and together with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of our common stock. As a result, the price of our common stock may be higher than the price that otherwise might exist in the open market. The underwriters are not required to engage in these activities and may end any of these activities at any time. These transactions may be effected on the Nasdaq Global Market, in the over-the-counter market or otherwise.

We estimate that our share of the total expenses of the offering, excluding underwriting discounts and commissions, will be approximately \$. We have agreed to reimburse the underwriters for certain of their expenses in an amount up to \$45,000.

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We have agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Certain of the underwriters and their respective affiliates have provided in the past, currently provide, and may in the future provide, a variety of these services to us and to persons and entities with relationships with us, for which they will receive customary fees and expenses.

In the ordinary course of their various business activities, the underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities and/or instruments of ours (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with us. The underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

European Economic Area

In relation to each Member State of the European Economic Area, each a Relevant Member State, no securities have been offered or will be offered pursuant to the offering to the public in that Relevant Member State prior to the publication of a prospectus in relation to the securities which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Regulation, except that the securities may be offered to the public in that Relevant Member State at any time:

- (a) to any legal entity which is a qualified investor as defined under Article 2 of the Prospectus Regulation;
- (b) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the Prospectus Regulation), subject to obtaining the prior consent of the Representatives for any such offer; or
- (c) in any other circumstances falling within Article 1(4) of the Prospectus Regulation, provided that no such offer of the securities shall require us or any of the underwriters or any of their respective affiliates to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression an “offer to the public” in relation to the securities in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any securities to be offered so as to enable an investor to decide to purchase or subscribe for any securities, and the expression “Prospectus Regulation” means Regulation (EU) 2017/1129.

United Kingdom

No securities have been offered or will be offered pursuant to the offering to the public in the United Kingdom prior to the publication of a prospectus in relation to the securities which has been approved by the Financial Conduct Authority, except that the securities may be offered to the public in the United Kingdom at any time:

- (d) to any legal entity which is a qualified investor as defined under Article 2 of the UK Prospectus Regulation;

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- (e) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the UK Prospectus Regulation), subject to obtaining the prior consent of the Representatives for any such offer; or
- (f) in any other circumstances falling within Section 86 of the FSMA;

provided that no such offer of the securities shall require the Company and/ or any underwriters or any of their affiliates to publish a prospectus pursuant to Section 85 of the FSMA or supplement a prospectus pursuant to Article 23 of the UK Prospectus Regulation.

For the purposes of this provision, the expression an “offer to the public” in relation to the securities in the United Kingdom means the communication in any form and by any means of sufficient information on the terms of the offer and any securities to be offered so as to enable an investor to decide to purchase or subscribe for any securities and the expression “UK Prospectus Regulation” means Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018.

Canada

The securities may be sold in Canada only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions, and Ongoing Registrant Obligations. Any resale of the securities must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus supplement (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser’s province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser’s province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Hong Kong

The securities may not be offered or sold in Hong Kong by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32 of the Laws of Hong Kong), or the Companies (Winding Up and Miscellaneous Provisions) Ordinance, or which do not constitute an invitation to the public within the meaning of the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong), or the Securities and Futures Ordinance, or (ii) to “professional investors” as defined in the Securities and Futures Ordinance and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a “prospectus” as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance, and no advertisement, invitation or document relating to the securities may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to securities which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” in Hong Kong as defined in the Securities and Futures Ordinance and any rules made thereunder.

Singapore

This prospectus supplement has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus supplement and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the securities may not be circulated or distributed, nor may the securities be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor (as defined under Section 4A of the Securities and Futures Act, Chapter 289 of Singapore, or the “SFA”) under Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA, in each case subject to conditions set forth in the SFA.

Where the securities are subscribed or purchased under Section 275 of the SFA by a relevant person which is a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor, the securities (as defined in Section 239(1) of the SFA) of that corporation shall not be transferable for six months after that corporation has acquired the securities under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer in that corporation’s securities pursuant to Section 275(1A) of the SFA, (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore, or Regulation 32.

Where the securities are subscribed or purchased under Section 275 of the SFA by a relevant person which is a trust (where the trustee is not an accredited investor (as defined in Section 4A of the SFA)) whose sole purpose is to hold investments and each beneficiary of the trust is an accredited investor, the beneficiaries’ rights and interest (howsoever described) in that trust shall not be transferable for six months after that trust has acquired the securities under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer that is made on terms that such rights or interest are acquired at a consideration of not less than S\$200,000 (or its equivalent in a foreign currency) for each transaction (whether such amount is to be paid for in cash or by exchange of securities or other assets), (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32.

Solely for the purposes of its obligations pursuant to Section 309B of the SFA, we have determined, and hereby notify all relevant persons (as defined in the CMP Regulations 2018), that the securities are “prescribed capital markets products” (as defined in the CMP Regulations 2018) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

Japan

The securities have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended), or the FIEA. The securities may not be offered or sold, directly or indirectly, in Japan or to or for the benefit of any resident of Japan (including any person resident in Japan or any corporation or other entity organized under the laws of Japan) or to others for reoffering or resale, directly or indirectly, in Japan or to or for the benefit of any resident of Japan, except pursuant to an exemption from the registration requirements of the FIEA and otherwise in compliance with any relevant laws and regulations of Japan.

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Australia

No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission, or ASIC, in relation to the offering. This offering document does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001, or the Corporations Act, and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act.

Any offer in Australia of the securities may only be made to persons, or the Exempt Investors, who are “sophisticated investors” (within the meaning of section 708(8) of the Corporations Act), “professional investors” (within the meaning of section 708(11) of the Corporations Act) or otherwise pursuant to one or more exemptions contained in section 708 of the Corporations Act so that it is lawful to offer the securities without disclosure to investors under Chapter 6D of the Corporations Act.

The securities applied for by Exempt Investors in Australia must not be offered for sale in Australia in the period of 12 months after the date of allotment under the offering, except in circumstances where disclosure to investors under Chapter 6D of the Corporations Act would not be required pursuant to an exemption under section 708 of the Corporations Act or otherwise or where the offer is pursuant to a disclosure document which complies with Chapter 6D of the Corporations Act. Any person acquiring securities must observe such Australian on-sale restrictions.

This offering document contains general information only and does not take account of the investment objectives, financial situation or particular needs of any particular person. It does not contain any securities recommendations or financial product advice. Before making an investment decision, investors need to consider whether the information in this offering document is appropriate to their needs, objectives and circumstances, and, if necessary, seek expert advice on those matters.

Dubai International Financial Centre

This offering document relates to an Exempt Offer in accordance with the Offered Securities Rules of the Dubai Financial Services Authority, or the DFSA. This offering document is intended for distribution only to persons of a type specified in the Offered Securities Rules of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus nor taken steps to verify the information set forth in this prospectus and has no responsibility for the offering document. The securities to which this offering document relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the securities offered should conduct their own due diligence on the securities. If you do not understand the contents of this offering document you should consult an authorized financial advisor.

Switzerland

We have not and will not register with the Swiss Financial Market Supervisory Authority, or the FINMA, as a foreign collective investment scheme pursuant to Article 119 of the Federal Act on Collective Investment Scheme of 23 June 2006, as amended, or CISA, and accordingly the securities being offered pursuant to this prospectus have not and will not be approved, and may not be licenseable, with FINMA. Therefore, the securities have not been authorized for distribution by FINMA as a foreign collective investment scheme pursuant to Article 119 CISA and the securities offered hereby may not be offered to the public (as this term is defined in Article 3 CISA) in or from Switzerland. The securities may solely be offered to “qualified investors,” as this term is defined in Article 10 CISA, and in the circumstances set out in Article 3 of the Ordinance on Collective Investment Scheme of 22 November 2006, as amended, or CISO, such that there is no public offer. Investors, however, do not benefit from protection under CISA or CISO or supervision by FINMA. This prospectus and any other materials relating to the securities are strictly personal and confidential to each offeree and do not constitute

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an offer to any other person. This prospectus may only be used by those qualified investors to whom it has been handed out in connection with the offer described in this prospectus and may neither directly or indirectly be distributed or made available to any person or entity other than its recipients. It may not be used in connection with any other offer and shall in particular not be copied and/or distributed to the public in Switzerland or from Switzerland. This prospectus does not constitute an issue prospectus as that term is understood pursuant to Article 652a and/or 1156 of the Swiss Federal Code of Obligations. We have not applied for a listing of the securities on the SIX Swiss Exchange or any other regulated securities market in Switzerland, and consequently, the information presented in this prospectus does not necessarily comply with the information standards set out in the listing rules of the SIX Swiss Exchange and corresponding prospectus schemes annexed to the listing rules of the SIX Swiss Exchange.

Brazil

The offer and sale of the securities have not been and will not be registered with the Brazilian Securities Commission (Comissão de Valores Mobiliários, or “CVM”) and, therefore, will not be carried out by any means that would constitute a public offering in Brazil under CVM resolution no 160, dated 13 July 2022, as amended (“CVM Resolution 160”), or unauthorized distribution under Brazilian laws and regulations. The securities may only be offered to Brazilian professional investors (as defined by applicable CVM Regulation), who may only acquire the securities through a non-Brazilian account, with settlement outside Brazil in non-Brazilian currency. The trading of these securities on regulated securities markets in Brazil is prohibited.

LEGAL MATTERS

The validity of the shares of common stock offered by this prospectus supplement will be passed upon for us by Fenwick & West LLP, San Francisco, California. Certain legal matters relating to the offering will be passed upon for the underwriters by Cooley LLP, San Francisco, California.

EXPERTS

The consolidated financial statements of BioAge Labs, Inc. as of December 31, 2024 and 2023, and for each of the years in the two-year period ended December 31, 2024, have been incorporated by reference herein and in the registration statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the common stock offered by this prospectus supplement and the accompanying prospectus. This prospectus supplement, which constitutes part of the registration statement, does not contain all the information set forth in the registration statement and its exhibits and schedules and the documents incorporated by reference therein. Statements contained in this prospectus supplement or the accompanying prospectus regarding the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and in each instance, we refer you to the copy of such contract or other document filed as an exhibit to the registration statement.

We are subject to the informational requirements of the Exchange Act and are required to file annual, quarterly and other reports, proxy statements and other information with the SEC. The SEC maintains a website (<http://www.sec.gov>) that contains reports, proxy and information statements, and various other information about us.

Information about us is also available at our website at <https://bioagelabs.com>. However, the information on our website is not a part of this prospectus supplement or the accompanying prospectus and is not incorporated by reference into this prospectus supplement or the accompanying prospectus.

INCORPORATION OF INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” information that we file with the SEC, which means that we can disclose important information to you by referring you to those other documents. The information incorporated by reference is an important part of this prospectus supplement, and information we file later with the SEC will automatically update and supersede this information. A Current Report (or portion thereof) furnished, but not filed, on Form 8-K shall not be incorporated by reference into this prospectus supplement. We incorporate by reference the documents listed below and any future filings we make with the SEC under Section 13(a), 13(c), 14, or 15(d) of the Exchange Act prior to the termination of any offering of securities made by this prospectus supplement, including all such documents we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement:

- our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2024, filed with the SEC on March 20, 2025;
- our Quarterly Reports on Form 10-Q for the three months ended March 31, 2025, filed with the SEC on [May 6, 2025](#), for the six months ended June 30, 2025, filed with the SEC on [August 6, 2025](#), and for the nine months ended September 30, 2025, filed with the SEC on [November 6, 2025](#);
- our Current Reports on Form 8-K filed on [June 4, 2025](#), [June 9, 2025](#), [December 4, 2025](#), [January 12, 2026](#) and [January 20, 2026](#);
- our [Definitive Proxy Statement](#) on Schedule 14A, filed with the SEC on April 17, 2025 (but only with respect to information required by Part III of our Annual Report on Form 10-K for the fiscal year ended December 31, 2024, which information shall update and supersede information included in Part III of our Annual Report on Form 10-K for the fiscal year ended December 31, 2024); and
- the description of our common stock contained in our registration statement on [Form 8-A](#) filed with the SEC on September 18, 2024 under Section 12(b) of the Exchange Act, as the description therein has been updated and superseded by the description of our capital stock contained in Exhibit 4.3 to our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2024, as filed with the SEC on March 20, 2025, including any amendment or report filed for the purpose of updating such description.

All reports and other documents we subsequently file pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of this offering, including all such documents we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement, but excluding any information furnished to, rather than filed with, the SEC, will also be incorporated by reference in this prospectus supplement and deemed to be part of this prospectus supplement from the date of the filing of such reports and documents.

We will furnish without charge to you, on written or oral request, a copy of any or all of such documents that has been incorporated herein by reference (other than exhibits to such documents unless such exhibits are specifically incorporated by reference into the documents that this prospectus incorporates). Written or oral requests for copies should be directed to BioAge Labs, Inc., Attn: Investor Relations, 5885 Hollis Street, Suite 370, Emeryville, California 94608, and our telephone number is (510) 806-1445. See the section of this prospectus entitled “Where You Can Find More Information” for information concerning how to obtain copies of materials that we file with the SEC.

PROSPECTUS

\$250,000,000
BIOAGE
BioAge, Inc.

**Common Stock, Preferred Stock,
Debt Securities, Warrants, Subscription Rights and Units**

From time to time, we may offer up to \$250.0 million aggregate dollar amount of shares of our common stock or preferred stock, debt securities, warrants to purchase our common stock, preferred stock or debt securities, subscription rights to purchase our common stock, preferred stock or debt securities and/or units consisting of some or all of these securities, in any combination, together or separately, in one or more offerings, in amounts, at prices and on the terms that we will determine at the time of the offering and which will be set forth in a prospectus supplement and any related free writing prospectus. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. The total amount of these securities will have an initial aggregate offering price of up to \$250.0 million.

You should read this prospectus, the information incorporated, or deemed to be incorporated, by reference in this prospectus, and any applicable prospectus supplement and related free writing prospectus carefully before you invest.

Our common stock is traded on The Nasdaq Global Select Market under the symbol "BIOA." On November 4, 2025, the last reported sales price for our common stock was \$7.47 per share. None of the other securities we may offer are currently traded on any securities exchange. The applicable prospectus supplement and any related free writing prospectus will contain information, where applicable, as to any other listing on The Nasdaq Global Select Market or any securities market or exchange of the securities covered by the prospectus supplement and any related free writing prospectus.

An investment in our securities involves a high degree of risk. You should carefully consider the information under the heading "[Risk Factors](#)" beginning on page 4 of this prospectus as well as those included in any accompanying prospectus supplement and in the documents incorporated by reference in this prospectus before investing in our securities.

Common stock, preferred stock, debt securities, warrants, subscription rights and/or units may be sold by us to or through underwriters or dealers, directly to purchasers or through agents designated from time to time. For additional information on the methods of sale, you should refer to the section entitled "Plan of Distribution" in this prospectus. If any underwriters, dealers or agents are involved in the sale of any securities with respect to which this prospectus is being delivered, the names of such underwriters or agents and any applicable fees, discounts or commissions, details regarding over-allotment options, if any, and the net proceeds to us will be set forth in a prospectus supplement. The price to the public of such securities and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is November 25, 2025

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the U.S. Securities and Exchange Commission (the “SEC”) using a “shelf” registration process. Under this shelf registration process, from time to time, we may sell any combination of the securities described in this prospectus in one or more offerings, up to a total dollar amount of \$250.0 million. Each time we offer our securities under this prospectus, we will provide a prospectus supplement that will contain more specific information about the terms of the offering. We may also add, update or change in a prospectus supplement any of the information contained in this prospectus or in documents we have incorporated by reference into this prospectus. To the extent there is a conflict between the information contained in this prospectus and the prospectus supplement, you should rely on the information in the prospectus supplement; provided that, if any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference in this prospectus or any prospectus supplement—the statement in the document having the later date modifies or supersedes the earlier statement. This prospectus, together with the applicable prospectus supplements and the documents incorporated by reference into this prospectus, includes all material information relating to this offering. You should carefully read both this prospectus and the applicable prospectus supplement, together with the additional information described under the headings “Where You Can Find More Information” and “Incorporation of Information by Reference” before buying any of our securities in this offering.

Neither we, nor any agent, underwriter or dealer have authorized anyone to give you any information or to make any representation other than the information and representations contained in or incorporated by reference into this prospectus or any applicable prospectus supplement. We and any agent, underwriter or dealer take no responsibility for, and can provide no assurance as to the reliability of, any other information others may give you. You may not imply from the delivery of this prospectus and any applicable prospectus supplement, nor from a sale made under this prospectus and any applicable prospectus supplement, that our affairs are unchanged since the date of this prospectus and any applicable prospectus supplement or that the information contained in any document incorporated by reference is accurate as of any date other than the date of the document incorporated by reference, regardless of the time of delivery of this prospectus and any applicable prospectus supplement or any sale of a security. This prospectus and any applicable prospectus supplement may only be used where it is legal to sell the securities.

THIS PROSPECTUS MAY NOT BE USED TO OFFER AND SELL SECURITIES UNLESS IT IS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

In this prospectus, unless the context otherwise requires, the terms “BioAge,” the “Company,” “we,” “us,” and “our” refer to BioAge Labs, Inc., a Delaware corporation.

The BioAge marks and logos, along with our other registered or common law trade names, trademarks or service marks, appearing in this prospectus are valuable company assets and are the exclusive property of BioAge. Solely for convenience, the trademarks, service marks and trade names referred to in this prospectus appear without the ® and ™ symbols, but this should not be interpreted as a waiver of any rights, and we fully reserve the right to assert and protect our intellectual property rights concerning our marks in accordance with applicable laws.

All other service marks, trademarks and trade names appearing in this prospectus are the property of their respective owners. Our use of third-party trade names, trademarks or service marks in this prospectus does not imply any affiliation with, endorsement by, or sponsorship by us of those companies.

PROSPECTUS SUMMARY

This summary highlights information contained in other parts of this prospectus or incorporated by reference in this prospectus. This summary may not contain all the information that you should consider before investing in securities. You should read the entire prospectus and the information incorporated by reference in this prospectus carefully, including “Risk Factors” and the financial data and related notes and other information incorporated by reference, before making an investment decision. See “Special Note Regarding Forward-Looking Statements.”

Our Company

We are a biopharmaceutical company developing therapeutic product candidates for metabolic diseases, such as obesity, by targeting the biology of human aging. Our technology platform and differentiated human datasets enable us to identify promising targets based on insights into molecular changes that drive aging. The primary focus of our portfolio is mechanisms that complement GLP-1 agonists and address key unmet needs. Among our therapeutic goals is the potential development of an all-oral combination product for obesity.

In January 2025, we announced the nomination of our lead program, BGE-102, a structurally novel, orally available small molecule NLRP3 inhibitor with high potency and brain penetration. We are initially developing BGE-102 for obesity since NLRP3-driven inflammation in the brain has been shown to dysregulate energy intake. In preclinical models, BGE-102 demonstrated weight loss both as a monotherapy and in combination with a GLP-1R agonist.

In August 2025, we announced that the first patient was dosed in our Phase 1 Single Ascending Dose (“SAD”) / Multiple Ascending Dose (“MAD”) clinical trial for BGE-102, with initial Phase 1 SAD data anticipated by year-end 2025 and complete phase 1 results by mid-2026. We intend to initiate an obesity proof-of-concept clinical trial for BGE-102 in the first half of 2026, with data for this study anticipated in the second half of 2026.

We are also developing novel apelin receptor APJ agonists for obesity, including programs targeting both oral and parenteral (subcutaneous) administration. In preclinical obesity models, APJ agonism has demonstrated the ability to more than double the weight loss induced by a GLP-1R agonist while also restoring healthy body composition and improving muscle function. In June 2025, we announced an option agreement with JiKang Therapeutics for a novel APJ agonist antibody, as well as the filing of a U.S. provisional patent for novel small molecule APJ agonists. We intend to file INDs for both the oral and parenteral APJ programs by 2026 year-end.

Corporate Information

We were incorporated under the laws of the State of Delaware on April 1, 2015, under the name BioAge Labs, Inc.

Our principal executive offices are located at 5885 Hollis Street, Suite 370, Emeryville, California 94608, and our telephone number is (510) 806-1445. Our website address is <https://bioagelabs.com>. The information contained on, or that can be accessed through, our website is not part of, and is not incorporated by reference into, this prospectus, and you should not consider it part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference. Investors should not rely on any such information in deciding whether to purchase our securities.

The Securities We May Offer

With this prospectus, we may offer common stock, preferred stock, debt securities, warrants to purchase our common stock, preferred stock or debt securities, subscription rights to purchase our common stock, preferred stock or debt securities, and/or units consisting of some or all of these securities in any combination. The aggregate offering price of securities that we offer with this prospectus will not exceed \$250.0 million. Each time

we offer securities with this prospectus, we will provide offerees with a prospectus supplement that will contain the specific terms of the securities being offered. The following is a summary of the securities we may offer with this prospectus.

Common Stock

We may offer shares of our common stock, par value \$0.00001 per share.

Preferred Stock

We may offer shares of our preferred stock, par value \$0.00001 per share, in one or more series. Our board of directors or a committee designated by the board of directors will determine the dividend, voting, conversion and other rights of the series of shares of preferred stock being offered. Each series of preferred stock will be more fully described in the particular prospectus supplement that will accompany this prospectus, including redemption provisions, rights in the event of our liquidation, dissolution or the winding up, voting rights and rights to convert into common stock.

Debt Securities

We may offer general obligations, which may be secured or unsecured, senior or subordinated and convertible into shares of our common stock or preferred stock. In this prospectus, we refer to the senior debt securities and the subordinated debt securities together as the “debt securities.” Our board of directors will determine the terms of each series of debt securities being offered.

We will issue the debt securities under an indenture between us and a trustee. In this document, we have summarized general features of the debt securities from the indenture. We encourage you to read the indenture, which is an exhibit to the registration statement of which this prospectus is a part.

Warrants

We may offer warrants for the purchase of our common stock, preferred stock or debt securities. We may issue warrants independently or together with other securities. Our board of directors will determine the terms of the warrants.

Subscription Rights

We may offer subscription rights for the purchase of common stock, preferred stock or debt securities. We may issue subscription rights independently or together with other securities. Our board of directors will determine the terms of the subscription rights.

Units

We may offer units consisting of some or all of the securities described above, in any combination, including common stock, preferred stock, warrants and/or debt securities. The terms of these units will be set forth in a prospectus supplement. The description of the terms of these units in the related prospectus supplement will not be complete. You should refer to the applicable form of unit and unit agreement for complete information with respect to these units.

RISK FACTORS

An investment in our securities involves a high degree of risk. Prior to making a decision about investing in our securities, you should carefully consider the specific factors discussed under the heading “Risk Factors” in the applicable prospectus supplement, together with all of the other information contained or incorporated by reference in the prospectus supplement or appearing or incorporated by reference in this prospectus. You should also consider the risks, uncertainties and assumptions discussed in our most recent Annual Report on Form 10-K, and any updates to those risk factors in subsequent Quarterly Reports on Form 10-Q which are incorporated herein by reference, and may be amended, supplemented or superseded from time to time by other reports we file (not furnish) with the SEC in the future. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our operations.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, any accompanying prospectus supplement and the documents incorporated by reference herein and therein (together, the “Prospectus”) contain “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements involve a number of risks and uncertainties. We caution readers that any forward-looking statement is not a guarantee of future performance and that actual results could differ materially from those contained in the forward-looking statement.

All statements other than statements of historical facts contained in this Prospectus are forward-looking statements. In some cases, you can identify forward-looking statements by terms such as “aim,” “may,” “will,” “should,” “expect,” “forecast,” “plan,” “anticipate,” “could,” “intend,” “target,” “project,” “contemplate,” “believe,” “estimate,” “predict,” “potential” or “continue” or the negative of these terms or other similar expressions, although not all forward-looking statements contain these words. All statements other than statements of historical fact contained in this Prospectus, including without limitation statements regarding our plans to develop and commercialize our product candidates, the potential for BGE-102 as a treatment for obesity, the timing and results of our ongoing or planned preclinical studies and clinical trials, risks associated with clinical trials, including our ability to adequately manage clinical activities for BGE-102 and our APJ program, unexpected concerns that may arise from additional data or analysis obtained during clinical trials, the timing of and our ability to obtain and maintain regulatory approvals, the clinical utility of our product candidates, our commercialization, marketing and manufacturing capabilities and strategy, our expectations about the willingness of healthcare professionals to use our product candidates, the sufficiency of our cash, cash equivalents, and marketable securities, general economic, industry and market conditions, including fluctuating interest rates and inflation, cybersecurity incidents, significant political, trade or regulatory developments, including tariffs or shifting priorities within the U.S. Food and Drug Administration, and global regional conflicts on our operations and the receipt and timing of potential regulatory designations, approvals and commercialization of BGE-102 or any future product candidates, and the plans and objectives of management for future operations and capital expenditures are forward-looking statements.

These forward-looking statements are based on the current beliefs and expectations of our management and are subject to significant risks and uncertainties. If underlying assumptions prove inaccurate or unknown risks or uncertainties materialize, actual results may differ materially from current expectations and projections. Factors that might cause such a difference include those discussed in our most recent Annual Report on Form 10-K and our subsequent Quarterly Reports on Form 10-Q, and other reports we file (not furnish) with the SEC in the future, as well as those discussed in this Prospectus and any free writing prospectus. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this prospectus or, in the case of any accompanying prospectus supplement or documents referred to or incorporated by reference, the date of those documents.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus supplement, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and you are cautioned not to unduly rely upon these statements.

All subsequent written or oral forward-looking statements attributable to us or any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. We do not undertake any obligation to release publicly any revisions to these forward-looking statements to reflect events or circumstances after the date of this prospectus or to reflect the occurrence of unanticipated events, except as may be required under applicable U.S. securities law. If we do update one or more forward-looking statements, no inference should be drawn that we will make additional updates with respect to those or other forward-looking statements.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act, with respect to the securities offered hereby. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement, the exhibits filed therewith or the documents incorporated by reference therein. For further information about us and the securities offered hereby, reference is made to the registration statement, the exhibits filed therewith and the documents incorporated by reference therein. Statements contained in this prospectus regarding the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and in each instance, we refer you to the copy of such contract or other document filed as an exhibit to the registration statement.

We are subject to the informational requirements of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and are required to file annual, quarterly and other reports, proxy statements and other information with the SEC. The SEC maintains an Internet site (<http://www.sec.gov>) that contains reports, proxy and information statements, and various other information about us. You may access, free of charge, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after each such report is electronically filed with, or furnished to, the SEC.

INFORMATION ABOUT US IS ALSO AVAILABLE AT OUR WEBSITE AT [HTTPS://BIOAGELABS.COM](https://bioagelabs.com). HOWEVER, THE INFORMATION ON OUR WEBSITE IS NOT A PART OF THIS PROSPECTUS AND IS NOT INCORPORATED BY REFERENCE INTO THIS PROSPECTUS. WE HAVE INCLUDED OUR WEBSITE ADDRESS IN THIS PROSPECTUS SOLELY AS AN INACTIVE TEXTUAL REFERENCE.

INCORPORATION OF INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” into this prospectus and any prospectus supplement information that we file with the SEC, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is an important part of this prospectus, and information we file later with the SEC will automatically update and supersede this information. A Current Report (or portion thereof) furnished, but not filed, on Form 8-K shall not be incorporated by reference into this prospectus. We incorporate by reference the documents listed below and any future filings we make with the SEC under Section 13(a), 13(c), 14, or 15(d) of the Exchange Act prior to the termination of any offering of securities made by this prospectus, including all such documents we may file with the SEC after the date of the initial filing of the registration statement and prior to the effectiveness of the registration statement:

- our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2024, filed with the SEC on March 20, 2025;
- our Quarterly Reports on Form 10-Q for the three months ended March 31, 2025, filed with the SEC on [May 6, 2025](#), and for the six months ended June 30, 2025, filed with the SEC on [August 6, 2025](#);
- our Current Reports on Form 8-K filed on [June 4, 2025](#), and [June 9, 2025](#);
- our Definitive Proxy Statement on [Schedule 14A](#), filed with the SEC on April 17, 2025 (but only with respect to information required by Part III of our Annual Report on Form 10-K for the fiscal year ended December 31, 2024, which information shall update and supersede information included in Part III of our Annual Report on Form 10-K for the fiscal year ended December 31, 2024); and
- and the description of our common stock contained in our registration statement on [Form 8-A](#) filed with the SEC on September 18, 2024 under Section 12(b) of the Exchange Act, as the description therein has been updated and superseded by the description of our capital stock contained in [Exhibit 4.3](#) to our Annual Report on Form 10-K for the fiscal year ended December 31, 2024, as filed with the SEC on March 20, 2025, including any amendment or report filed for the purpose of updating such description.

We will furnish without charge to you, on written or oral request, a copy of any or all of such documents that has been incorporated herein by reference (other than exhibits to such documents unless such exhibits are specifically incorporated by reference into the documents that this prospectus incorporates). Written or oral requests for copies should be directed to BioAge Labs, Inc., Attn: Investor Relations, 5885 Hollis Street, Suite 370, Emeryville, California 94608, and our telephone number is (510) 806-1445. See the section of this prospectus entitled “Where You Can Find More Information” for information concerning how to obtain copies of materials that we file with the SEC.

Any statement contained in this prospectus, or in a document, all or a portion of which is incorporated by reference, shall be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus, any prospectus supplement or any document incorporated by reference modifies or supersedes such statement. Any such statement so modified or superseded shall not, except as so modified or superseded, constitute a part of this prospectus.

USE OF PROCEEDS

We will retain broad discretion over the use of the net proceeds to us from the sale of our securities under this prospectus. Unless otherwise provided in the applicable prospectus supplement, we intend to use the net proceeds from the sale of securities under this prospectus for general corporate purposes, which may include funding research, nonclinical and clinical development and manufacturing activities, increasing our working capital, reducing indebtedness, developing our commercialization infrastructure, developing our manufacturing capabilities, acquisitions or investments in businesses, products or technologies that are complementary to our own, general and administrative expenses, and capital expenditures. We will set forth in the applicable prospectus supplement our intended use for the net proceeds received from the sale of any securities. Unless we state otherwise in the applicable prospectus supplement, pending the application of net proceeds, we expect to invest the net proceeds in investment-grade interest-bearing securities such as money market accounts, certificates of deposit, commercial paper and guaranteed obligations of the U.S. government.

PLAN OF DISTRIBUTION

We may sell the securities covered by this prospectus to one or more underwriters for public offering and sale by them, and may also sell the securities to investors directly or through agents. We will name any underwriter or agent involved in the offer and sale of securities in the applicable prospectus supplement. We have reserved the right to sell or exchange securities directly to investors on our own behalf in jurisdictions where we are authorized to do so. We may distribute the securities from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

We may directly solicit offers to purchase the securities being offered by this prospectus. We may also designate agents to solicit offers to purchase the securities from time to time. We will name in a prospectus supplement any agent involved in the offer or sale of our securities. Unless otherwise indicated in a prospectus supplement, an agent will be acting on a best efforts basis, and a dealer will purchase securities as a principal for resale at varying prices to be determined by the dealer.

If we utilize an underwriter in the sale of the securities being offered by this prospectus, we will execute an underwriting agreement with the underwriter at the time of sale and we will provide the name of any underwriter in the prospectus supplement that the underwriter will use to make resales of the securities to the public. In connection with the sale of the securities, we, or the purchasers of securities for whom the underwriter may act as agent, may compensate the underwriter in the form of underwriting discounts or commissions. The underwriter may sell the securities to or through dealers, and those dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters or commissions from the purchasers for whom they may act as agent.

We will provide in the applicable prospectus supplement any compensation we pay to underwriters, dealers, or agents in connection with the offering of the securities, and any discounts, concessions or commissions allowed by underwriters to participating dealers. Underwriters, dealers and agents participating in the distribution of the securities may be deemed to be underwriters within the meaning of the Securities Act and any discounts and commissions received by them and any profit realized by them on resale of the securities may be deemed to be underwriting discounts and commissions. In compliance with the guidelines of the Financial Industry Regulatory Authority, Inc. ("FINRA"), the aggregate maximum discount, commission or agency fees or other items constituting underwriting compensation to be received by any FINRA member or independent broker-dealer shall be fair and reasonable. We may enter into agreements to indemnify underwriters, dealers and agents against civil liabilities, including liabilities under the Securities Act, and to reimburse them for certain expenses. We may grant underwriters who participate in the distribution of our securities under this prospectus an option to purchase additional securities in connection with the distribution.

The securities we offer under this prospectus may or may not be listed through The Nasdaq Global Select Market or any other securities exchange. To facilitate the offering of securities, certain persons participating in the offering may engage in transactions that stabilize, maintain or otherwise affect the price of the securities. This may include short sales of the securities, which involves the sale by persons participating in the offering of more securities than we sold to them. In these circumstances, these persons would cover such short positions by making purchases in the open market or by exercising their option to purchase additional securities. In addition, these persons may stabilize or maintain the price of the securities by bidding for or purchasing securities in the open market or by imposing penalty bids, whereby selling concessions allowed to dealers participating in the offering may be reclaimed if securities sold by them are repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. These transactions may be discontinued at any time.

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We may engage in at the market offerings into an existing trading market in accordance with Rule 415(a)(4) under the Securities Act. In addition, we may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including short sale transactions. If so, the third party may use securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and they may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third party in these sale transactions will be an underwriter and will be identified in the applicable prospectus supplement. In addition, we may otherwise loan or pledge securities to a financial institution or other third party that in turn may sell the securities short using this prospectus. The financial institution or other third party may transfer its economic short position to investors in our securities or in connection with a concurrent offering of other securities.

We will file a prospectus supplement to describe the terms of any offering of our securities covered by this prospectus. The prospectus supplement will disclose:

- the terms of the offer;
- the names of any underwriters, including any managing underwriters, as well as any dealers or agents;
- the purchase price of the securities from us;
- the net proceeds to us from the sale of the securities;
- any delayed delivery arrangements;
- any options under which underwriters, if any, may purchase additional securities from us;
- any underwriting discounts, commissions or other items constituting underwriters' compensation, and any commissions paid to agents;
- in a subscription rights offering, whether we have engaged dealer-managers to facilitate the offering or subscription, including their name or names and compensation;
- any public offering price; and
- other facts material to the transaction.

We will bear all or substantially all of the costs, expenses and fees in connection with the registration of our securities under this prospectus. The underwriters, dealers and agents may engage in transactions with us, or perform services for us, in the ordinary course of business.

Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in one business day, unless the parties to any such trade expressly agree otherwise or the securities are sold by us to an underwriter in a firm commitment underwritten offering. The applicable prospectus supplement may provide that the original issue date for your securities may be more than one scheduled business day after the trade date for your securities. Accordingly, in such a case, if you wish to trade securities on any date prior to the second business day before the original issue date for your securities, you will be required, by virtue of the fact that your securities initially are expected to settle in more than one scheduled business day after the trade date for your securities, to make alternative settlement arrangements to prevent a failed settlement.

DESCRIPTION OF CAPITAL STOCK

General

The following description summarizes the most important terms of our capital stock. Because it is only a summary, it does not contain all the information that may be important to you. For a complete description, you should refer to our restated certificate of incorporation and amended and restated bylaws, which are included as exhibits to the registration statement of which this prospectus forms a part, and to the applicable provisions of Delaware law.

Our authorized capital stock consists of 500,000,000 shares of our common stock, \$0.00001 par value per share, and 10,000,000 shares of our undesignated preferred stock, \$0.00001 par value per share.

As of June 30, 2025, there were 35,850,037 shares of our common stock outstanding, and no shares of our preferred stock outstanding. In addition, as of June 30, 2025, there were outstanding stock options to purchase 8,047,827 shares of our common stock, with a weighted-average exercise price of \$7.72 per share.

Common Stock

Dividend rights

Subject to preferences that may apply to any shares of preferred stock outstanding at the time, the holders of our common stock are entitled to receive dividends out of funds legally available if our board of directors, in its discretion, determines to issue dividends and then only at the times and in the amounts that our board of directors may determine. For more information about our dividend policy, see the section entitled “Dividend Policy” in our Annual Report on Form 10-K for the year ended December 31, 2024, filed with the SEC on March 20, 2025, which is incorporated by reference in this prospectus.

Voting rights

Holders of our common stock are entitled to one vote for each share of our common stock held on all matters submitted to a vote of stockholders. Our restated certificate of incorporation does not provide for cumulative voting for the election of directors, which means that holders of a majority of the shares of our common stock are able to elect all of our directors. Our restated certificate of incorporation established a classified board of directors, divided into three classes with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms.

No preemptive or similar rights

Our common stock is not entitled to preemptive rights, and is not subject to conversion, redemption or sinking fund provisions.

Right to receive liquidation distributions

Upon our liquidation, dissolution or winding-up, the assets legally available for distribution to our stockholders would be distributable ratably among the holders of our common stock and any participating preferred stock outstanding at that time, subject to prior satisfaction of all outstanding debt and liabilities and the preferential rights of and the payment of liquidation preferences, if any, on any outstanding shares of preferred stock.

Preferred Stock

We had no shares of preferred stock outstanding as of June 30, 2025.

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Pursuant to our restated certificate of incorporation, our board of directors is authorized, subject to limitations prescribed by Delaware law, to issue preferred stock in one or more series, to establish from time to time the number of shares to be included in each series and to fix the designation, powers, preferences and rights of the shares of each series and any of their qualifications, limitations or restrictions, in each case without further vote or action by our stockholders. Our board of directors is also able to increase or decrease the number of shares of any series of preferred stock, but not below the number of shares of that series then outstanding and not above the number of shares of that series authorized, without any further vote or action by our stockholders. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in control of our Company and might adversely affect the market price of our common stock and the voting and other rights of the holders of our common stock. We have no current plan to issue any shares of preferred stock.

Registration Rights

Pursuant to the terms of our amended and restated investors' rights agreement, or certain of our common stock are entitled to rights with respect to the registration of these shares under the Securities Act, as described below. We refer to these shares collectively as registrable securities. These rights are provided under the terms of the IRA between us and the holders of these shares, which was entered into in connection with our convertible preferred stock financing prior to our initial public offer.

Demand registration rights

If we receive a request to file a Registration Statement on Form S-1 from the holders of at least a majority of the registrable securities then outstanding (and the registrable securities subject to such request have an anticipated offering price, net of selling expenses of at least \$50 million), then we are obligated to provide notice of such request to all holders other than the holders that initiated the request, and as soon as practicable but in any event within 90 days after such request is given by the initiating holders, use commercially reasonable efforts to as soon as practicable file a Form S-1 registration statement under the Securities Act covering all registrable securities that the initiating holders requested to be registered and any additional registrable securities requested to be included in such registration by any other holders, as specified by notice given by each such holder to the Company within 20 days after the date the request is given. We are only required to file two registration statements that are declared effective upon exercise of these demand registration rights. We may defer taking action with respect to such filing not more than once during any 12-month period for a total period of not more than 90 days, if after receiving a request for registration, we furnish to the holders requesting such registration a certificate signed by our Chief Executive Officer stating that, in the good faith judgment of our board of directors, it would be materially detrimental to us and our stockholders.

The underwriters of any underwritten offering will have the right to limit the number of shares registered by these holders if they determine that marketing factors require limitation, in which case the number of shares to be registered will be apportioned, in proportion (as nearly as practicable), to the number of registrable securities owned by each holder or in such other proportion as shall mutually be agreed to by all such selling holders. However, the number of shares to be registered by these holders cannot be reduced unless all other securities are first entirely excluded from the underwriting.

Form S-3 registration rights

Any holder of the registrable securities then outstanding can request that we file a Form S-3 Registration Statement with respect to outstanding registrable securities of such holders having an anticipated aggregate offering price, net of selling expenses, of at least \$5 million. Within 10 days after the request is given, we are obligated to provide notice of such request to all holders of registrable securities other than the initial holders and

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as soon as practicable, and in any event within 45 days, use commercially reasonable efforts to file a Form S-3 Registration Statement under the Securities Act covering all registrable securities requested to be included in such registration by any other holders as specified by notice given by each such holder to us within 20 days of the date the request is given. We are not required to file more than two registration statements that are declared effective upon exercise of these demand registration rights within any 12-month period. We may defer taking action with respect to such filing not more than once during any 12-month period for a total period of not more than 90 days, if after receiving a request for registration, we furnish to the holders requesting such registration a certificate signed by our Chief Executive Officer stating that, in the good faith judgment of our board of directors, it would be materially detrimental to us and our stockholders.

The underwriters of any underwritten offering will have the right to limit the number of shares registered by these holders if they determine that marketing factors require limitation, in which case the number of shares to be registered will be apportioned, in proportion (as nearly as practicable), to the number of registrable securities owned by each holder or in such other proportion as shall mutually be agreed to by all such selling holders. However, the number of shares to be registered by these holders cannot be reduced unless all other securities are first entirely excluded from the underwriting.

Piggyback registration rights

If we register any of our securities for public sale solely for cash, holders of then-outstanding registrable securities or their permitted transferees will have the right to include their registrable securities in the registration statement. However, this right does not apply to a registration relating to the sale or grant of securities to our employees pursuant to a stock option, stock purchase, equity incentive or similar plan, a registration relating to a Rule 145 transaction, a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of our common stock, or a registration in which the only common stock being registered is common stock issuable upon conversion of debt securities that are also being registered. If the underwriters determine that less than all the registrable securities requested to be registered can be included in the offering, the number of registrable shares to be registered will be allocated among holders of our registrable securities, in proportion (as nearly as practicable) to the amount of registrable securities owned by each such holder or in such other proportions as shall mutually be agreed to by all such holders. However, the number of shares to be registered by holders of registrable securities cannot be reduced unless all other securities (other than as offered by us) are first entirely excluded. The number of registrable securities included in the offering may not be reduced below 25% of the total number of securities included in such offering, except for in connection with an initial public offering, in which case the selling holders may be excluded further if the underwriters make the determination described above and no other stockholder's securities are included in such offering.

Expenses of registration rights

We generally will pay all expenses (other than selling expenses) incurred in connection with each of the registrations, filings or qualifications described above, including all registration, filing and qualification fees; printers' and accounting fees; fees and disbursements of our counsel; and the reasonable fees and disbursements of one counsel for the selling holders, not to exceed \$30,000, provided, however, that if the registration is subsequently withdrawn at the request of the holders of a majority of the registrable shares to be registered (in which case all selling holders shall bear such expenses pro rata based upon the number of registrable securities that were to be included in the withdrawn registration) unless the holders of a majority of the registrable securities agree to forfeit their right to a registration as described above.

Termination of registration rights

The registration rights described above will terminate, with respect to any particular holder of these rights, on the earliest to occur of (i) such time when all of such holder's registrable securities could be sold without any

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restriction on volume or manner of sale in any three-month period under Rule 144 or any successor, (ii) a deemed liquidation event, as defined in our restated certificate of incorporation, or a sale by our stockholders, in one transaction or series of related transactions, of equity securities that represent, immediately prior to such transaction or transactions, at least a majority by voting power of our equity securities pursuant to an agreement approved by our board of directors and the investors holding at least a majority of our outstanding preferred stock (voting together as a single class on an as-converted basis) and entered into by us, or (iii) September 26, 2029.

Anti-Takeover Provisions

The provisions of Delaware General Corporation Law (the “DGCL”), our restated certificate of incorporation and our amended and restated bylaws could have the effect of delaying, deferring or discouraging another person from acquiring control of our Company. These provisions, which are summarized below, may have the effect of discouraging takeover bids. They are also designed, in part, to encourage persons seeking to acquire control of us to negotiate first with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with an unfriendly or unsolicited acquirer outweigh the disadvantages of discouraging a proposal to acquire us because negotiation of these proposals could result in an improvement of their terms.

Delaware Law

We are subject to the provisions of Section 203 of the DGCL regulating corporate takeovers. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years following the date on which the person became an interested stockholder unless:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, but not the outstanding voting stock owned by the interested stockholder, (i) shares owned by persons who are directors and also officers and (ii) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- at or subsequent to the date of the transaction, the business combination is approved by the board of directors of the corporation and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66.67% of the outstanding voting stock that is not owned by the interested stockholder.

Generally, a business combination includes a merger, asset or stock sale, or other transaction or series of transactions together resulting in a financial benefit to the interested stockholder. An interested stockholder is a person who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of a corporation’s outstanding voting stock. We expect the existence of this provision to have an anti-takeover effect with respect to transactions our board of directors does not approve in advance. We also anticipate that Section 203 of the DGCL may also discourage attempts that might result in a premium over the market price for the shares of common stock held by stockholders.

Restated Certificate of Incorporation and Amended and Restated Bylaw Provisions

Our restated certificate of incorporation and our amended and restated bylaws include a number of provisions that could deter hostile takeovers or delay or prevent changes in control of our Company, including the following:

- ***Board of Directors vacancies.*** Our restated certificate of incorporation and amended and restated bylaws authorize only our board of directors to fill vacant directorships, including newly created seats.

In addition, the number of directors constituting our board of directors is permitted to be set only by a resolution adopted by a majority vote of our entire board of directors. These provisions prevent a stockholder from increasing the size of our board of directors and then gaining control of our board of directors by filling the resulting vacancies with its own nominees. This makes it more difficult to change the composition of our board of directors but promotes continuity of management.

- **Classified board.** Our restated certificate of incorporation and amended and restated bylaws provide that our board of directors is classified into three classes of directors, each with staggered three-year terms. A third party may be discouraged from making a tender offer or otherwise attempting to obtain control of us as it is more difficult and time consuming for stockholders to replace a majority of the directors on a classified board of directors.
- **Stockholder action; special meetings of stockholders.** Our restated certificate of incorporation provides that our stockholders may not take action by written consent, but may only take action at annual or special meetings of our stockholders. As a result, a holder controlling a majority of our capital stock would not be able to amend our amended and restated bylaws or remove directors without holding a meeting of our stockholders called in accordance with our amended and restated bylaws. Further, our restated certificate of incorporation and amended and restated bylaws provide that special meetings of our stockholders may be called only by a majority of our board of directors, the chairperson of our board of directors, our Chief Executive Officer or our President, thus prohibiting a stockholder from calling a special meeting. These provisions might delay the ability of our stockholders to force consideration of a proposal or for stockholders controlling a majority of our capital stock to take any action, including the removal of directors.
- **Advance notice requirements for stockholder proposals and director nominations.** Our amended and restated bylaws provide advance notice procedures for stockholders seeking to bring business before our annual meeting of stockholders or to nominate candidates for election as directors at our annual meeting of stockholders. Our amended and restated bylaws also specify certain requirements regarding the form and content of a stockholder's notice. These provisions might preclude our stockholders from bringing matters before our annual meeting of stockholders or from making nominations for directors at our annual meeting of stockholders if the proper procedures are not followed. We expect that these provisions might also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of our Company.
- **No cumulative voting.** The DGCL provides that stockholders are not entitled to the right to cumulate votes in the election of directors unless a corporation's certificate of incorporation provides otherwise. Our restated certificate of incorporation and amended and restated bylaws do not provide for cumulative voting.
- **Directors removed only for cause.** Our restated certificate of incorporation provides that stockholders may remove directors only for cause and only by the affirmative vote of the holders of at least two-thirds of our outstanding common stock.
- **Amendment of charter provisions.** Any amendment of the above provisions in our restated certificate of incorporation requires approval by holders of at least two-thirds of our outstanding common stock, unless such amendments are approved by two thirds of our entire board of directors, in which case stockholders can approve by a simple majority.
- **Issuance of undesignated preferred stock.** Our board of directors has the authority, without further action by the stockholders, to issue up to 10,000,000 shares of undesignated preferred stock with rights and preferences, including voting rights, designated from time to time by our board of directors. The existence of authorized but unissued shares of preferred stock enables our board of directors to render more difficult or to discourage an attempt to obtain control of us by merger, tender offer, proxy contest or other means.
- **Choice of forum.** Our amended and restated bylaws provide that, to the fullest extent permitted by law, the Court of Chancery of the State of Delaware will be the exclusive forum for any derivative action or

proceeding brought on our behalf; any action asserting a breach of fiduciary duty; any action asserting a claim against us arising pursuant to the DGCL, our restated certificate of incorporation or our amended and restated bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. Our amended and restated bylaws provide that the federal district courts of the United States of America will, to the fullest extent permitted by law, be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act, which we refer to as a Federal Forum Provision. Our decision to adopt a Federal Forum Provision followed a decision by the Supreme Court of the State of Delaware holding that such provisions are facially valid under Delaware law. While there can be no assurance that federal courts or other state courts will follow the holding of the Delaware Supreme Court or determine that the Federal Forum Provision should be enforced in a particular case, application of the Federal Forum Provision means that suits brought by our stockholders to enforce any duty or liability created by the Securities Act must be brought in federal court and cannot be brought in state court. As Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all claims brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder there is uncertainty about whether a court would enforce such provision. While neither the exclusive forum provision nor the Federal Forum Provision applies to suits brought to enforce any duty or liability created by the Exchange Act, Section 27 of the Exchange Act creates exclusive federal jurisdiction over all claims brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder. Accordingly, actions by our stockholders to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder also must be brought in federal court. Our stockholders will not be deemed to have waived our compliance with the federal securities laws and the regulations promulgated thereunder. Any person or entity purchasing or otherwise acquiring or holding any interest in any of our securities shall be deemed to have notice of and consented to our exclusive forum provisions, including the Federal Forum Provision. These provisions may limit a stockholder's ability to bring a claim in a judicial forum of their choosing for disputes with us or our directors, executive officers, other employees or agents of our Company, which may discourage lawsuits against us and our directors, executive officers and other employees.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A. The transfer agent's and registrar's address is 250 Royall Street, Canton, Massachusetts 02021, and its telephone number is (800) 962-4284.

The Nasdaq Global Select Market Listing

Our common stock is listed on The Nasdaq Global Select Market under the symbol "BIOA."

DESCRIPTION OF DEBT SECURITIES

General

We will issue the debt securities offered by this prospectus and any accompanying prospectus supplement under an indenture to be entered into between us and the trustee identified in the applicable prospectus supplement. The terms of the debt securities will include those stated in the indenture and those made part of the indenture by reference to the Trust Indenture Act of 1939, as in effect on the date of the indenture. We have filed a copy of the form of indenture as an exhibit to the registration statement in which this prospectus is included. The indenture will be subject to and governed by the terms of the Trust Indenture Act of 1939. Unless otherwise specified in the applicable prospectus supplement, the debt securities will represent our direct, unsecured obligations and will rank equally with all of our other unsecured indebtedness.

We may offer under this prospectus up to an aggregate principal amount of \$250.0 million in debt securities, or if debt securities are issued at a discount, or in a foreign currency, foreign currency units or composite currency, the principal amount as may be sold for an aggregate public offering price of up to \$250.0 million. We may issue the debt securities in one or more series with the same or various maturities, at par, at a premium, or at a discount. We will describe the particular terms of each series of debt securities in a prospectus supplement relating to that series, which we will file with the SEC. The prospectus supplement relating to the particular series of debt securities being offered will specify the particular amounts, prices and terms of those debt securities. These terms may include:

- the title of the series;
- the aggregate principal amount, and, if a series, the total amount authorized and the total amount outstanding;
- the issue price or prices, expressed as a percentage of the aggregate principal amount of the debt securities;
- any limit on the aggregate principal amount;
- the date or dates on which principal is payable;
- the interest rate or rates (which may be fixed or variable) or, if applicable, the method used to determine such rate or rates;
- the date or dates from which interest, if any, will be payable and any regular record date for the interest payable;
- the place or places where principal and, if applicable, premium and interest, is payable;
- the terms and conditions upon which we may, or the holders may require us to, redeem or repurchase the debt securities;
- the denominations in which such debt securities may be issuable, if other than denominations of \$1,000 or any integral multiple of that number;
- whether the debt securities are to be issuable in the form of certificated securities (as described below) or global securities (as described below);
- the portion of principal amount that will be payable upon declaration of acceleration of the maturity date if other than the principal amount of the debt securities;
- the currency of denomination;
- the designation of the currency, currencies or currency units in which payment of principal and, if applicable, premium and interest, will be made;

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- if payments of principal and, if applicable, premium or interest, on the debt securities are to be made in one or more currencies or currency units other than the currency of denomination, the manner in which the exchange rate with respect to such payments will be determined;
- if amounts of principal and, if applicable, premium and interest may be determined by reference to an index based on a currency or currencies or by reference to a commodity, commodity index, stock exchange index or financial index, then the manner in which such amounts will be determined;
- the provisions, if any, relating to any collateral provided for such debt securities;
- any addition to or change in the covenants and/or the acceleration provisions described in this prospectus or in the indenture;
- any events of default, if not otherwise described below under “Events of Default”;
- the terms and conditions, if any, for conversion into or exchange for shares of our common stock or preferred stock;
- any depositaries, interest rate calculation agents, exchange rate calculation agents or other agents; and
- the terms and conditions, if any, upon which the debt securities shall be subordinated in right of payment to our other indebtedness.

We may issue discount debt securities that provide for an amount less than the stated principal amount to be due and payable upon acceleration of the maturity of such debt securities in accordance with the terms of the indenture. We may also issue debt securities in bearer form, with or without coupons. If we issue discount debt securities or debt securities in bearer form, we will describe material U.S. federal income tax considerations and other material special considerations which apply to these debt securities in the applicable prospectus supplement.

We may issue debt securities denominated in or payable in a foreign currency or currencies or a foreign currency unit or units. If we do, we will describe the restrictions, elections, and general tax considerations relating to the debt securities and the foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement.

Debt securities offered under this prospectus and any prospectus supplement will be subordinated in right of payment to certain of our outstanding senior indebtedness. In addition, we will seek the consent of the holders of any such senior indebtedness prior to issuing any debt securities under this prospectus to the extent required by the agreements evidencing such senior indebtedness.

Registrar and Paying Agent

The debt securities may be presented for registration of transfer or for exchange at the corporate trust office of the security registrar or at any other office or agency that we maintain for those purposes. In addition, the debt securities may be presented for payment of principal, interest and any premium at the office of the paying agent or at any office or agency that we maintain for those purposes.

Conversion or Exchange Rights

Debt securities may be convertible into or exchangeable for shares of our common stock. The terms and conditions of conversion or exchange will be stated in the applicable prospectus supplement. The terms will include, among others, the following:

- the conversion or exchange price;
- the conversion or exchange period;

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- provisions regarding the convertibility or exchangeability of the debt securities, including who may convert or exchange;
- events requiring adjustment to the conversion or exchange price;
- provisions affecting conversion or exchange in the event of our redemption of the debt securities; and
- any anti-dilution provisions, if applicable.

Registered Global Securities

If we decide to issue debt securities in the form of one or more global securities, then we will register the global securities in the name of the depository for the global securities or the nominee of the depository, and the global securities will be delivered by the trustee to the depository for credit to the accounts of the holders of beneficial interests in the debt securities.

The prospectus supplement will describe the specific terms of the depository arrangement for debt securities of a series that are issued in global form. None of us, the trustee, any payment agent or the security registrar will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests in a global debt security or for maintaining, supervising or reviewing any records relating to these beneficial ownership interests.

No Protection in the Event of Change of Control

The indenture does not have any covenants or other provisions providing for a put or increased interest or otherwise that would afford holders of our debt securities additional protection in the event of a recapitalization transaction, a change of control or a highly leveraged transaction. If we offer any covenants or provisions of this type with respect to any debt securities covered by this prospectus, we will describe them in the applicable prospectus supplement.

Covenants

Unless otherwise indicated in this prospectus or the applicable prospectus supplement, our debt securities will not have the benefit of any covenants that limit or restrict our business or operations, the pledging of our assets or the incurrence by us of indebtedness. We will describe in the applicable prospectus supplement any material covenants in respect of a series of debt securities.

Merger, Consolidation or Sale of Assets

The form of indenture provides that we will not consolidate with or merge into any other person or convey, transfer, sell or lease our properties and assets substantially as an entirety to any person, unless:

- we are the surviving person of such merger or consolidation, or if we are not the surviving person, the person formed by the consolidation or into or with which we are merged or the person to which our properties and assets are conveyed, transferred, sold or leased, is a corporation organized and existing under the laws of the U.S., any state or the District of Columbia or a corporation or comparable legal entity organized under the laws of a foreign jurisdiction and has expressly assumed all of our obligations, including the payment of the principal of and, premium, if any, and interest on the debt securities and the performance of the other covenants under the indenture; and
- immediately before and immediately after giving effect to the transaction on a pro forma basis, no event of default, and no event which, after notice or lapse of time or both, would become an event of default, has occurred and is continuing under the indenture.

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Events of Default

Unless otherwise specified in the applicable prospectus supplement, the following events will be events of default under the indenture with respect to debt securities of any series:

- we fail to pay any principal or premium, if any, when it becomes due;
- we fail to pay any interest within 30 days after it becomes due;
- we fail to observe or perform any other covenant in the debt securities or the indenture for 90 days after written notice specifying the failure from the trustee or the holders of not less than 25% in aggregate principal amount of the outstanding debt securities of that series; and
- certain events involving bankruptcy, insolvency or reorganization of us or any of our significant subsidiaries.

The trustee may withhold notice to the holders of the debt securities of any series of any default, except in payment of principal of or premium, if any, or interest on the debt securities of a series, if the trustee considers it to be in the best interest of the holders of the debt securities of that series to do so.

If an event of default (other than an event of default resulting from certain events of bankruptcy, insolvency or reorganization) occurs, and is continuing, then the trustee or the holders of not less than 25% in aggregate principal amount of the outstanding debt securities of any series may accelerate the maturity of the debt securities. If this happens, the entire principal amount, plus the premium, if any, of all the outstanding debt securities of the affected series plus accrued interest to the date of acceleration will be immediately due and payable. At any time after the acceleration, but before a judgment or decree based on such acceleration is obtained by the trustee, the holders of a majority in aggregate principal amount of outstanding debt securities of such series may rescind and annul such acceleration if:

- all events of default (other than nonpayment of accelerated principal, premium or interest) have been cured or waived;
- all lawful interest on overdue interest and overdue principal has been paid; and
- the rescission would not conflict with any judgment or decree.

In addition, if the acceleration occurs at any time when we have outstanding indebtedness that is senior to the debt securities, the payment of the principal amount of outstanding debt securities may be subordinated in right of payment to the prior payment of any amounts due under the senior indebtedness, in which case the holders of debt securities will be entitled to payment under the terms prescribed in the instruments evidencing the senior indebtedness and the indenture.

If an event of default resulting from certain events of bankruptcy, insolvency or reorganization occurs, the principal, premium and interest amount with respect to all of the debt securities of any series will be due and payable immediately without any declaration or other act on the part of the trustee or the holders of the debt securities of that series.

The holders of a majority in principal amount of the outstanding debt securities of a series will have the right to waive any existing default or compliance with any provision of the indenture or the debt securities of that series and to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, subject to certain limitations specified in the indenture.

No holder of any debt security of a series will have any right to institute any proceeding with respect to the indenture or for any remedy under the indenture, unless:

- the holder gives to the trustee written notice of a continuing event of default;

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- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of the affected series make a written request and offer reasonable indemnity to the trustee to institute a proceeding as trustee;
- the trustee fails to institute a proceeding within 60 days after such request; and
- the holders of a majority in aggregate principal amount of the outstanding debt securities of the affected series do not give the trustee a direction inconsistent with such request during such 60-day period.

These limitations do not, however, apply to a suit instituted for payment on debt securities of any series on or after the due dates expressed in the debt securities.

We will periodically deliver certificates to the trustee regarding our compliance with our obligations under the indenture.

Modification and Waiver

From time to time, we and the trustee may, without the consent of holders of the debt securities of one or more series, amend the indenture or the debt securities of one or more series, or supplement the indenture, for certain specified purposes, including:

- to provide that the surviving entity following a change of control permitted under the indenture will assume all of our obligations under the indenture and debt securities;
- to provide for certificated debt securities in addition to uncertificated debt securities;
- to comply with any requirements of the SEC under the Trust Indenture Act of 1939;
- to provide for the issuance of and establish the form and terms and conditions of debt securities of any series as permitted by the indenture;
- to cure any ambiguity, defect or inconsistency, or make any other change that does not materially and adversely affect the rights of any holder; and

to appoint a successor trustee under the indenture with respect to one or more series.

From time to time we and the trustee may, with the consent of holders of at least a majority in principal amount of an outstanding series of debt securities, amend or supplement the indenture or the debt securities series, or waive compliance in a particular instance by us with any provision of the indenture or the debt securities. We may not, however, without the consent of each holder affected by such action, modify or supplement the indenture or the debt securities or waive compliance with any provision of the indenture or the debt securities in order to:

- reduce the amount of debt securities whose holders must consent to an amendment, supplement, or waiver to the indenture or such debt security;
- reduce the rate of or change the time for payment of interest or reduce the amount of or postpone the date for payment of sinking fund or analogous obligations;
- reduce the principal of or change the stated maturity of the debt securities;
- make any debt security payable in money other than that stated in the debt security;
- change the amount or time of any payment required or reduce the premium payable upon any redemption, or change the time before which no such redemption may be made;
- waive a default in the payment of the principal of, premium, if any, or interest on the debt securities or a redemption payment;

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- waive a redemption payment with respect to any debt securities or change any provision with respect to redemption of debt securities; or
- take any other action otherwise prohibited by the indenture to be taken without the consent of each holder affected by the action.

Defeasance of Debt Securities and Certain Covenants in Certain Circumstances

The indenture permits us, at any time, to elect to discharge our obligations with respect to one or more series of debt securities by following certain procedures described in the indenture. These procedures will allow us either:

- to defease and be discharged from any and all of our obligations with respect to any debt securities except for the following obligations (which discharge is referred to as “legal defeasance”):
 1. to register the transfer or exchange of such debt securities;
 2. to replace temporary or mutilated, destroyed, lost or stolen debt securities;
 3. to compensate and indemnify the trustee; or
 4. to maintain an office or agency in respect of the debt securities and to hold monies for payment in trust; or
- to be released from our obligations with respect to the debt securities under certain covenants contained in the indenture, as well as any additional covenants which may be contained in the applicable supplemental indenture (which release is referred to as “covenant defeasance”).

In order to exercise either defeasance option, we must irrevocably deposit with the trustee or other qualifying trustee, in trust for that purpose:

- money;
- U.S. Government Obligations (as described below) or Foreign Government Obligations (as described below) that through the scheduled payment of principal and interest in accordance with their terms will provide money; or
- a combination of money and/or U.S. Government Obligations and/or Foreign Government Obligations sufficient in the written opinion of a nationally-recognized firm of independent accountants to provide money;

that, in each case specified above, provides a sufficient amount to pay the principal of, premium, if any, and interest, if any, on the debt securities of the series, on the scheduled due dates or on a selected date of redemption in accordance with the terms of the indenture.

In addition, defeasance may be effected only if, among other things:

- in the case of either legal or covenant defeasance, we deliver to the trustee an opinion of counsel, as specified in the indenture, stating that as a result of the defeasance neither the trust nor the trustee will be required to register as an investment company under the Investment Company Act of 1940;
- in the case of legal defeasance, we deliver to the trustee an opinion of counsel stating that we have received from, or there has been published by, the Internal Revenue Service a ruling to the effect that, or there has been a change in any applicable federal income tax law with the effect that (and the opinion shall confirm that), the holders of outstanding debt securities will not recognize income, gain or loss for U.S. federal income tax purposes solely as a result of such legal defeasance and will be subject to U.S. federal income tax on the same amounts, in the same manner, including as a result of prepayment, and at the same times as would have been the case if legal defeasance had not occurred;
- in the case of covenant defeasance, we deliver to the trustee an opinion of counsel to the effect that the holders of the outstanding debt securities will not recognize income, gain or loss for U.S. federal income tax purposes as a result of covenant defeasance and will be subject to U.S. federal income tax

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- on the same amounts, in the same manner and at the same times as would have been the case if covenant defeasance had not occurred; and
- certain other conditions described in the indenture are satisfied.

If we fail to comply with our remaining obligations under the indenture and applicable supplemental indenture after a covenant defeasance of the indenture and applicable supplemental indenture, and the debt securities are declared due and payable because of the occurrence of any undefeased event of default, the amount of money and/or U.S. Government Obligations and/or Foreign Government Obligations on deposit with the trustee could be insufficient to pay amounts due under the debt securities of the affected series at the time of acceleration. We will, however, remain liable in respect of these payments.

The term “U.S. Government Obligations” as used in the above discussion means securities that are direct obligations of or non-callable obligations guaranteed by the United States of America for the payment of which obligation or guarantee the full faith and credit of the United States of America is pledged.

The term “Foreign Government Obligations” as used in the above discussion means, with respect to debt securities of any series that are denominated in a currency other than U.S. dollars, (1) direct obligations of the government that issued or caused to be issued such currency for the payment of which obligations its full faith and credit is pledged or (2) obligations of a person controlled or supervised by or acting as an agent or instrumentality of such government the timely payment of which is unconditionally guaranteed as a full faith and credit obligation by that government, which in either case under clauses (1) or (2), are not callable or redeemable at the option of the issuer.

Regarding the Trustee

We will identify the trustee with respect to any series of debt securities in the prospectus supplement relating to the applicable debt securities. You should note that if the trustee becomes a creditor of ours, the indenture and the Trust Indenture Act of 1939 limit the rights of the trustee to obtain payment of claims in certain cases, or to realize on certain property received in respect of any such claim, as security or otherwise. The trustee and its affiliates may engage in, and will be permitted to continue to engage in, other transactions with us and our affiliates. If, however, the trustee acquires any “conflicting interest” within the meaning of the Trust Indenture Act of 1939, it must eliminate such conflict or resign.

The holders of a majority in principal amount of the then outstanding debt securities of any series may direct the time, method and place of conducting any proceeding for exercising any remedy available to the trustee. If an event of default occurs and is continuing, the trustee, in the exercise of its rights and powers, must use the degree of care and skill of a prudent person in the conduct of his or her own affairs. Subject to that provision, the trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request of any of the holders of the debt securities, unless they have offered to the trustee reasonable indemnity or security.

No Individual Liability of Incorporators, Stockholders, Officers or Directors

Each indenture provides that no incorporator and no past, present or future stockholder, officer or director of our Company or any successor corporation in those capacities will have any individual liability for any of our obligations, covenants or agreements under the debt securities or such indenture.

Governing Law

The indentures and the debt securities will be governed by, and construed in accordance with, the laws of the State of New York.

DESCRIPTION OF WARRANTS

General

We may issue warrants for the purchase of our debt securities, preferred stock, common stock, or any combination thereof. Warrants may be issued independently or together with our debt securities, preferred stock or common stock and may be attached to or separate from any offered securities. Each series of warrants will be issued under a separate warrant agreement to be entered into between us and a bank or trust company, as warrant agent. The warrant agent will act solely as our agent in connection with the warrants. The warrant agent will not have any obligation or relationship of agency or trust for or with any holders or beneficial owners of warrants. This summary of certain provisions of the warrants is not complete. For the terms of a particular series of warrants, you should refer to the prospectus supplement for that series of warrants and the warrant agreement for that particular series.

Debt Warrants

The prospectus supplement relating to a particular issue of warrants to purchase debt securities will describe the terms of the debt warrants, including the following:

- the title of the debt warrants;
- the offering price for the debt warrants, if any;
- the aggregate number of the debt warrants;
- the designation and terms of the debt securities, including any conversion rights, purchasable upon exercise of the debt warrants;
- if applicable, the date from and after which the debt warrants and any debt securities issued with them will be separately transferable;
- the principal amount of debt securities that may be purchased upon exercise of a debt warrant and the exercise price for the warrants, which may be payable in cash, securities or other property;
- the dates on which the right to exercise the debt warrants will commence and expire;
- if applicable, the minimum or maximum amount of the debt warrants that may be exercised at any one time;
- whether the debt warrants represented by the debt warrant certificates or debt securities that may be issued upon exercise of the debt warrants will be issued in registered or bearer form;
- information with respect to book-entry procedures, if any;
- the currency or currency units in which the offering price, if any, and the exercise price are payable;
- if applicable, a discussion of material U.S. federal income tax considerations;
- the antidilution provisions of the debt warrants, if any;
- the redemption or call provisions, if any, applicable to the debt warrants;
- any provisions with respect to the holder's right to require us to repurchase the debt warrants upon a change in control or similar event; and
- any additional terms of the debt warrants, including procedures and limitations relating to the exchange, exercise, and settlement of the debt warrants.

Debt warrant certificates will be exchangeable for new debt warrant certificates of different denominations. Debt warrants may be exercised at the corporate trust office of the warrant agent or any other office indicated in the

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prospectus supplement. Prior to the exercise of their debt warrants, holders of debt warrants will not have any of the rights of holders of the debt securities purchasable upon exercise and will not be entitled to payment of principal or any premium, if any, or interest on the debt securities purchasable upon exercise.

Equity Warrants

The prospectus supplement relating to a particular series of warrants to purchase our common stock or preferred stock will describe the terms of the warrants, including the following:

- the title of the warrants;
- the offering price for the warrants, if any;
- the aggregate number of warrants;
- the designation and terms of the common stock or preferred stock that may be purchased upon exercise of the warrants;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each security;
- if applicable, the date from and after which the warrants and any securities issued with the warrants will be separately transferable;
- the number of shares of common stock or preferred stock that may be purchased upon exercise of a warrant and the exercise price for the warrants;
- the dates on which the right to exercise the warrants shall commence and expire;
- if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;
- the currency or currency units in which the offering price, if any, and the exercise price are payable;
- if applicable, a discussion of material U.S. federal income tax considerations;
- the antidilution provisions of the warrants, if any;
- the redemption or call provisions, if any, applicable to the warrants;
- any provisions with respect to a holder's right to require us to repurchase the warrants upon a change in control or similar event; and
- any additional terms of the warrants, including procedures and limitations relating to the exchange, exercise and settlement of the warrants.

Holders of equity warrants will not be entitled:

- to vote, consent, or receive dividends;
- receive notice as stockholders with respect to any meeting of stockholders for the election of our directors or any other matter; or
- exercise any rights as stockholders.

DESCRIPTION OF SUBSCRIPTION RIGHTS

We may issue subscription rights to purchase our common stock, preferred stock or debt securities. These subscription rights may be offered independently or together with any other security offered hereby and may or may not be transferable by the stockholder receiving the subscription rights in such offering. In connection with any offering of subscription rights, we may enter into a standby arrangement with one or more underwriters or other purchasers pursuant to which the underwriters or other purchasers may be required to purchase any securities remaining unsubscribed for after such offering.

The prospectus supplement relating to any subscription rights we offer, if any, will, to the extent applicable, include specific terms relating to the offering, including some or all of the following:

- the price, if any, for the subscription rights;
- the exercise price payable for our common stock, preferred stock or debt securities upon the exercise of the subscription rights;
- the number of subscription rights to be issued to each stockholder;
- the number and terms of our common stock, preferred stock or debt securities which may be purchased per each subscription right;
- the extent to which the subscription rights are transferable;
- any other terms of the subscription rights, including the terms, procedures and limitations relating to the exchange and exercise of the subscription rights;
- the date on which the right to exercise the subscription rights shall commence, and the date on which the subscription rights shall expire;
- the extent to which the subscription rights may include an over-subscription privilege with respect to unsubscribed securities or an over-allotment privilege to the extent the securities are fully subscribed; and
- if applicable, the material terms of any standby underwriting or purchase arrangement which may be entered into by us in connection with the offering of subscription rights.

The description in the applicable prospectus supplement of any subscription rights we offer will not necessarily be complete and will be qualified in its entirety by reference to the applicable subscription rights certificate, which will be filed with the SEC if we offer subscription rights. We urge you to read the applicable subscription rights certificate and any applicable prospectus supplement in their entirety.

DESCRIPTION OF UNITS

We may issue units consisting of some or all of the securities described above, in any combination, including common stock, preferred stock, warrants and/or debt securities. The terms of these units will be set forth in a prospectus supplement. The description of the terms of these units in the related prospectus supplement will not be complete. You should refer to the applicable form of unit and unit agreement for complete information with respect to these units.

LEGAL MATTERS

Fenwick & West LLP, San Francisco, California, will issue an opinion about certain legal matters with respect to the securities. Any underwriters or agents will be advised about legal matters relating to any offering by their own counsel.

EXPERTS

The consolidated financial statements of BioAge Labs, Inc. as of December 31, 2024 and 2023, and for each of the years in the two-year period ended December 31, 2024, have been incorporated by reference herein and in the registration statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

\$75,000,000

BIOAGE

Common Stock

PROSPECTUS SUPPLEMENT

Goldman Sachs & Co. LLC

Piper Sandler

Citigroup

, 2026
