

Prospectus Supplement
(To Prospectus Dated April 5, 2024)**39,591,000 Shares of Common Stock
Pre-Funded Warrants to Purchase up to 3,800,000 Shares of Common Stock**

We are offering 39,591,000 shares of our common stock, par value \$0.00001 per share, or common stock, and pre-funded warrants to purchase up to 3,800,000 shares of our common stock, or the pre-funded warrants, (and the shares of common stock issuable from time to time upon exercise of the pre-funded warrants), pursuant to this prospectus supplement and the accompanying prospectus. We expect to use approximately \$39.0 million of the net proceeds from this offering to repurchase 6,922,870 shares of our common stock owned by Matrix Capital Management Master Fund, LP, or Matrix.

The pre-funded warrants will be exercisable immediately and are exercisable for one share of our common stock. The purchase price of each pre-funded warrant is equal to the purchase price at which a share of our common stock is sold in this offering, minus \$0.00001, and the exercise price of each pre-funded warrant is \$0.00001 per share of our common stock.

Our common stock is listed on The Nasdaq Global Market under the symbol "AURA." On May 1, 2026, the last reported sale price for our common stock on The Nasdaq Global Market was \$7.01 per share. There is no established public trading market for the pre-funded warrants, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the pre-funded warrants on any securities exchange or recognized trading system.

We are an "emerging growth company" and a "smaller reporting company" under the federal securities laws and, as such, we have elected to comply with certain reduced public company reporting requirements for this prospectus supplement and for future filings. See "Prospectus Supplement Summary—Implications of Being an Emerging Growth Company and Smaller Reporting Company."

	Per Share	Per Pre-Funded Warrant	Total
Public offering price	\$ 6.00	\$ 5.99999	\$260,345,962
Underwriting discounts and commissions ⁽¹⁾	\$ 0.36	\$ 0.36000	\$ 15,620,760
Proceeds to Aura Biosciences, Inc., before expenses	\$ 5.64	\$ 5.63999	\$244,725,202

(1) See "Underwriting" for a description of the compensation payable to the underwriters.

We have granted the underwriters an option to purchase up to an additional 6,508,650 shares of common stock from us at the public offering price, less underwriting discounts and commissions, within 30 days from the date of this prospectus supplement.

Investing in our common stock involves a high degree of risk. See "[Risk Factors](#)" beginning on page S-13 of this prospectus supplement and page 1 of the accompanying prospectus, and in the documents incorporated by reference herein. You should read the entire prospectus supplement and the accompanying prospectus, including any information incorporated by reference, carefully, before investing in our common stock.

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

The underwriters expect to deliver the shares of common stock and pre-funded warrants to purchasers on or about May 5, 2026.

Joint Bookrunning Managers**Leerink Partners****TD Cowen****Evercore ISI****Bookrunning Manager****LifeSci Capital****Co-Manager****Citizens Capital Markets**

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of this offering of common stock and pre-funded warrants and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part is the accompanying prospectus dated April 5, 2024, included in our registration statement on Form S-3 (File No. 333-278253), along with the documents incorporated by reference therein, which provides more general information, some of which may not apply to this offering. Generally, when we refer to this prospectus, we are referring to both parts of this document combined.

To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or in any document incorporated by reference that was filed with the Securities and Exchange Commission, or the SEC, before the date of this prospectus supplement, on the other hand, you should rely on the information in this prospectus supplement. 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 the accompanying prospectus—the statement in the document having the later date modifies or supersedes the earlier statement.

This prospectus supplement and the accompanying prospectus are part of a “shelf” registration statement that we filed with the SEC. Under the shelf registration process, we may offer from time to time various securities, of which this offering of shares of our common stock and pre-funded warrants is a part.

Such registration statement also includes exhibits that provide more detail on the matters discussed in this prospectus supplement and the accompanying prospectus. You should read this prospectus supplement, the accompanying prospectus, including the information incorporated by reference, the exhibits filed with the SEC, and any free writing prospectus that we have authorized for use in connection with this offering, in their entirety before making an investment decision.

You should rely only on the information contained or incorporated by reference in this prospectus supplement, the accompanying prospectus and any free writing prospectus prepared by us or on our behalf. We have not, and the underwriters have not, authorized any other person to provide you with information different from that contained in this prospectus supplement and the accompanying prospectus or incorporated by reference in this prospectus supplement and the accompanying prospectus. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the underwriters are not, making an offer to sell or soliciting an offer to buy these securities under any circumstance in any jurisdiction where the offer or solicitation is not permitted. You should assume that the information contained in this prospectus supplement, the accompanying prospectus and any free writing prospectus prepared by us or on our behalf is accurate only as of the date of the respective document in which the information appears, and that any information in documents that we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus supplement or any sale of a security. Our business, financial condition, results of operations and prospects may have changed since those dates.

It is important for you to read and consider all of the information contained in this prospectus supplement and the accompanying prospectus before making your investment decision. We include cross-references in this prospectus supplement and the accompanying prospectus to captions in these materials where you can find additional related discussions. The table of contents in this prospectus supplement provides the pages on which these captions are located. You should read both this prospectus supplement and the accompanying prospectus, together with the additional information described in the sections entitled “Where You Can Find More Information” and “Incorporation Of Certain Information By Reference” of this prospectus supplement, before investing in our common stock.

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We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference herein were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

We and the underwriters are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus 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 and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of the common stock and the distribution of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do 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 and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

Except as otherwise indicated herein or as the context otherwise requires, references in this prospectus supplement, the accompanying prospectus and the information incorporated by reference herein or therein to “Aura,” “the Company,” “we,” “us,” “our” and similar terms refer to Aura Biosciences, Inc., a Delaware corporation.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the information incorporated by reference herein, contain “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. All statements, other than statements of historical facts, included in this prospectus, including the documents that we incorporate by reference, regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans, objectives of management and expected market growth are forward-looking statements. The words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “target,” “will,” “would” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. These forward-looking statements include, among other things, statements about:

- the initiation, timing, progress, results and cost of our research and development programs and our current and future nonclinical, preclinical studies and clinical trials, including statements regarding the timing of initiation and completion of studies or trials and related preparatory work, the period during which the results of the trials will become available and our research and development programs;
- our ability to efficiently develop our existing product candidates and discover new product candidates;
- our ability to successfully manufacture our drug substances and product candidates for preclinical use, for clinical trials and on a larger scale for commercial use, if approved;
- the ability and willingness of our third-party strategic collaborators to continue research and development and other activities relating to our development candidates and product candidates;
- our ability to obtain funding for our operations necessary to complete further development and commercialization of our product candidates;
- our ability to obtain and maintain regulatory approval of our product candidates;
- our ability to commercialize our products, if approved;
- the pricing and reimbursement of our product candidates, if approved;
- the implementation of our business model and strategic plans for our business and product candidates;
- the scope of protection we are able to establish and maintain for intellectual property rights covering our product candidates;
- estimates of our future expenses, revenues, capital requirements and our needs for additional financing;
- the potential benefits of strategic collaboration agreements, our ability to enter into strategic collaborations or arrangements and our ability to attract collaborators with development, regulatory and commercialization expertise;
- future agreements with third parties in connection with the commercialization of product candidates and any other approved product;
- the size and growth potential of the markets for our product candidates and our ability to serve those markets;
- our financial performance;
- the rate and degree of market acceptance of our product candidates;
- regulatory developments in the United States and foreign countries;
- our ability to produce our products or product candidates with advantages in turnaround times or manufacturing cost;

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- the success of competing therapies that are or may become available;
- our ability to attract and retain key scientific or management personnel;
- our ability to continue as a going concern;
- the impact of laws and regulations;
- developments relating to our competitors and our industry;
- our use of our existing cash, cash equivalents and marketable securities and the net proceeds from this offering, including the use thereof;
- the effects of macroeconomic conditions, including rising interest rates, inflation, capital market disruptions, changes in governmental agencies, government shutdowns, international tariffs, trade protection measures, economic sanctions and economic slowdowns or recessions, on our business operations; and
- other risks and uncertainties, including those listed under the caption “Risk Factors” in this prospectus and in our most recent Annual Report on Form 10-K.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this prospectus, including the documents that we incorporate by reference, particularly in our “critical accounting estimates” described in Part II, Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Significant Judgments and Estimates” and in Part I, Item 1A “Risk Factors” of our most recent Annual Report on Form 10-K filed with the SEC, which is incorporated by reference in this prospectus, and in the “Risk factors” section of this prospectus, that could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures, collaborations or investments that we may make.

You should read this prospectus supplement, the accompanying prospectus and the documents that we incorporate by reference herein and therein completely and with the understanding that our actual future results may be materially different from what we expect. We do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

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.

This prospectus supplement, the accompanying prospectus and the documents incorporated herein and therein by reference, and any free writing prospectus that we may have authorized for use in connection with this offering, contain estimates, projections and other information concerning our industry, our business and the markets for our product candidates, including data regarding the estimated size of such markets and the incidence of certain medical conditions. We obtained the industry, market and similar data set forth in this prospectus from our internal estimates and research and from academic and industry research, publications, surveys and studies conducted by third parties, including governmental agencies. In some cases, we do not expressly refer to the sources from which this data is derived. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances that are assumed in this information. You are cautioned not to give undue weight to any such information, projections and estimates.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information about us and this offering and does not contain all of the information that you should consider before investing in our common stock. You should read this prospectus supplement carefully, especially the risks of investing in our common stock discussed under “Risk Factors” beginning on page S-13 of this prospectus supplement and in Part I, Item 1A “Risk Factors” of our most recent Annual Report on Form 10-K or Current Reports on Form 8-K we file after the date of this prospectus supplement, which is incorporated by reference in this prospectus supplement, along with our consolidated financial statements and notes to those consolidated financial statements and the other information incorporated by reference in this prospectus supplement, before making an investment decision.

Company Overview

We are a clinical-stage biotechnology company developing precision therapies to treat solid tumors designed to preserve organ function. Our lead candidate bel-sar is in late-stage clinical development for the treatment of patients with early choroidal melanoma (defined as small choroidal melanoma and/or indeterminate lesions) and is also in clinical development for other ocular oncology indications and bladder cancer.

There is significant unmet need for novel treatments for patients with choroidal melanoma, given the limitations of the current standard of care, or SoC, and patient reluctance to undergo radiotherapy in the form of either plaque brachytherapy or proton beam therapy, both highly-invasive therapies that result in significant vision loss, and potential legal blindness in the treated eye. Enucleation, or surgical removal of the affected eye, is another treatment option for patients with choroidal melanoma, in which patients lose all vision without the possibility of vision restoration. We are evaluating the safety and efficacy of bel-sar as a potential vision-sparing therapy in our ongoing global Phase 3 CoMpass trial for the first-line treatment of adult patients with early choroidal melanoma. Moreover, we intend to assess the safety and efficacy of bel-sar in treating a range of other solid tumors, beginning with metastases to the choroid and bladder cancer where bel-sar is in clinical development, as well as in cancers of the ocular surface. We believe bel-sar, if approved, has the potential to change the current treatment paradigm for patients with ocular and urologic cancers and other solid tumors.

Bel-sar has shown clinical benefit and has been generally well-tolerated in clinical trials to date. In a Phase 2 study (ClinicalTrials.gov ID: NCT04417530) evaluating suprachoroidal, or SC, administration of bel-sar for the first-line treatment of early choroidal melanoma, patients were closely monitored over a twelve-month follow-up period to assess tumor control, visual acuity preservation, and tumor growth rate. A total of 22 patients were enrolled in the study. Bel-sar achieved an 80% tumor control rate (n=8/10) among Phase 3-eligible patients who received the therapeutic regimen, with complete cessation of growth following treatment among responders (post-treatment average growth rate of 0.011 mm/yr among responders compared to 0.351 mm/yr prior to study entry; p<0.0001). Visual acuity preservation was achieved in 90% of these ten patients. Importantly, 80% of these ten patients were at high risk for vision loss with tumors close to the fovea or optic disc, highlighting the potential for vision preservation with this novel class of drugs. The safety profile of bel-sar was highly favorable in all participants regardless of dose. We believe the Phase 2 results are a significant achievement considering the typically poor prognosis associated with choroidal melanoma, a rare and life-threatening ocular cancer, where there are no approved vision-preserving therapies to date. We believe bel-sar has the possibility to transform the field of ocular oncology beyond choroidal melanoma and we are expanding clinical development in two additional indications: metastases to the choroid and cancers of the ocular surface. We continue to enroll patients in an ongoing Phase 2 clinical trial in metastases to the choroid and we are initiating a Phase 1 proof-of-concept trial in cancers of the ocular surface.

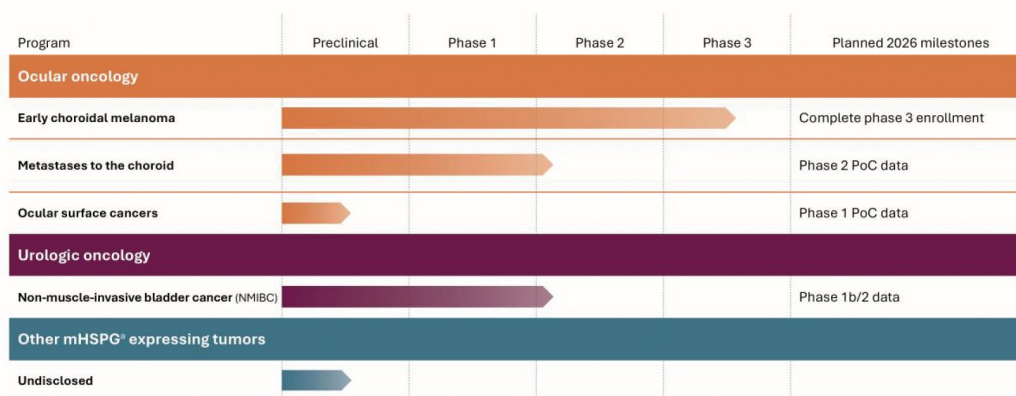
Virus-like drug conjugates, or VDCs, are a novel class of drugs with a dual mechanism of action that promote cancer cell death by both the delivery of the cytotoxic payload to generate acute necrosis and activation of a secondary immune mediated response. Bel-sar, our lead VDC candidate, consists of modified capsid proteins of the human papilloma virus, or HPV, conjugated to hundreds of light-activated molecules.

Light activation of bel-sar is designed to result in precise tumor cell killing with minimal damage to surrounding healthy tissues. In the absence of bel-sar activation or binding to the tumor cell membrane, there is no cytotoxic effect. Multiple light activations, following a single dose of bel-sar, increase antitumor activity because of the reoxygenation of the tumor and the photostability of bel-sar. Finally, acute necrosis triggers immunogenic cell death leading to the generation of an adaptive, long-term antitumor immune response. The tumor targeting specificity of VDCs is driven by the selective binding of the virus-like particles, or VLPs, to a subset of modified tumor associated glycosaminoglycans, or GAGs, that are part of the heparan sulphate chain of heparan sulfate proteoglycans or HSPGs, expressed on the tumor cell membrane. This targeting mechanism enables the delivery of multiple types of cytotoxic payloads directly to a wide range of solid tumors.

Beyond ocular cancers, bel-sar is in clinical development in bladder cancer. Bladder cancer is the ninth most common cancer worldwide and the majority of cases are diagnosed early as non-muscle invasive bladder cancer, or NMIBC, with a prevalence of approximately 80,000 cases per year in the United States. Despite the early diagnosis, patients with NMIBC have a high risk of recurrence and progression with current SoC treatments. In 2025, we announced positive data from our Phase 1 trial in NMIBC (NCT05483868). Based on the positive results from the completed Phase 1 trial, we are advancing the clinical development of bel-sar in NMIBC. We have an ongoing Phase 1b/2 trial in NMIBC evaluating additional doses and cycles in intermediate and high-risk NMIBC patients.

Our vision is to innovate the future of cancer care to cure patients and preserve organ function. We are developing bel-sar in several indications in ocular oncology, with the goal of treating tumors, preserving vision and preventing blindness in patients. Our lead indication is a potential multi-billion dollar addressable market opportunity. We are also evaluating bel-sar in urologic oncology indications, initially in bladder cancer, which is one of the most expensive cancers to treat on a per patient basis. The global market for bladder cancer is expected to be greater than \$8.0 billion by 2032.

Our initial focus is in ocular and urologic oncology, both areas of high unmet medical need where local targeted therapies may enable early intervention, as shown in our pipeline below.



a. *Virus-like drug conjugates (VDCs) bind to a subset of modified tumor associated glycosaminoglycans (GAGs) that are part of the heparan sulphate chain of heparan sulfate proteoglycans (HSPGs).*

1. *Kines RC, and Schiller JT. Viruses. 2022;14(8):1656. mHSPG, modified heparan sulphate proteoglycan; NMIBC, non-muscle-invasive bladder cancer; PoC, proof of concept.*

We envision the potential for development of other oncology therapeutic areas in addition to ocular and urologic cancers.

Recent Developments

CEO Transition

On April 29, 2026, our board of directors appointed Natalie Holles as our Chief Executive Officer and President and as a Class I director, effective as of April 30, 2026, or the Effective Date. Ms. Holles will succeed Dr. Elisabet de los Pinos, our founder, who notified us on April 29, 2026 of her departure from her role with us as Chief Executive Officer and President and as a director, as of the Effective Date.

Natalie Holles, age 53, is a seasoned industry executive with significant rare disease operational and commercialization experience. From August 2021 to December 2025, Ms. Holles served as Chief Executive Officer and a member of the board of directors of Third Harmonic Bio, Inc., a biopharmaceutical company that focused on dermal, respiratory and gastrointestinal inflammatory diseases. From January 2020 through March 2021, Ms. Holles served as President and Chief Executive Officer at Audentes Therapeutics, Inc., a biotechnology company focused on genetic medicines, and prior to that served as their President and Chief Operating Officer beginning in May 2018 and Senior Vice President, Chief Operating Officer beginning in August 2015. Previously, Ms. Holles served as Senior Vice President, Corporate Development at Hyperion Therapeutics, Inc., a rare disease pharmaceutical company, from June 2013 through its acquisition by Horizon Pharma, plc in May 2015. From August 2012 until June 2013, Ms. Holles served as the Executive Vice President, Corporate Development at Immune Design, Inc., an immunotherapy company, and from December 2010 to June 2013, Ms. Holles served as an independent life sciences corporate development consultant. Earlier in her career, Ms. Holles served as the Vice President, Business Development at KAI Pharmaceuticals, Inc., which was acquired by Amgen, Inc. in 2012, and previously held corporate development and commercial roles at InterMune, Inc. (acquired by the Roche Group) and Genentech, Inc. Ms. Holles also has served on the board of directors of Day One Biopharmaceuticals, Inc., a biopharmaceutical company, since February 2021, and served on the board of directors of Rubius Therapeutics, Inc., a biopharmaceutical company, from March 2019 to August 2022 and Allakos Inc., a biotechnology company, from December 2020 to July 2021. Ms. Holles holds an A.B. in Human Biology from Stanford University and an M.A. in Molecular, Cellular and Developmental Biology from the University of Colorado, Boulder, where she was a Howard Hughes Medical Institute Predoctoral Fellow.

CoMpass Enrollment Update

On May 4, 2026, we announced that our Phase 3 CoMpass trial with our investigational candidate belzupacap sarotalocan (bel-sar) for the treatment of early choroidal melanoma is nearing enrollment completion. As of May 4, 2026, 86 patients have been enrolled in the study, and more than 25 additional patients have been scheduled or identified for screening through May 2026. With this update, we reiterated our guidance to enrollment completion by mid-2026 and topline data from the CoMpass trial in the second half of 2027.

Preliminary Financial Updates

Based upon preliminary estimates and information available to us as of the date of this prospectus supplement, we estimate that our cash, cash equivalents and marketable securities were approximately \$114.7 million as of March 31, 2026. This amount has not been audited, reviewed, or compiled by our independent registered public accounting firm. Our actual cash, cash equivalents and marketable securities as of March 31, 2026 may differ from these amounts after we complete our comprehensive accounting procedures for the quarter ended March 31, 2026. Our financial statements for the quarter ended March 31, 2026 will not be available until after this offering is completed, and consequently will not be available to you prior to investing in this offering.

Stock Repurchase

Pursuant to a stock purchase agreement, dated April 30, 2026, entered into by and between us and Matrix, we have agreed to use approximately \$39.0 million of the net proceeds from this offering to repurchase, in a privately negotiated transaction, 6,922,870 shares, which we believe represents all shares of our common stock held by Matrix as of the date hereof at \$5.64 per share, the price per share at which the underwriters will purchase shares of our common stock in this offering from us. Such transaction is referred to herein as the “Stock Repurchase.” The shares being repurchased will become authorized but unissued shares following the Stock Repurchase.

Prior to giving effect to this offering and the Stock Repurchase, the 6,922,870 shares held by Matrix represented approximately 10.8% of our outstanding common stock based on the number of shares of common stock outstanding as of April 15, 2026. The stock purchase agreement and related arrangements and transactions were reviewed and approved by our audit committee, which is charged with reviewing related party transactions, and is composed of three independent directors who are not affiliated with Matrix. Upon the recommendation by the audit committee, our board of directors also approved such transaction.

We cannot provide any assurance that the Stock Repurchase will occur on the terms described herein, or at all. See “Risk Factors—Risks Related to this Offering and the Securities Offered Hereby—There can be no assurance that the Stock Repurchase will occur on the terms described herein.” The closing of the sale of the shares of our common stock in this offering is not conditioned upon the closing of the Stock Repurchase. The description of, and other information in this prospectus supplement regarding, the Stock Repurchase is included in this prospectus supplement for informational purposes only. Nothing in this prospectus supplement should be construed as an offer (i) to sell, or the solicitation of an offer to purchase, any of our common stock that we may repurchase, or (ii) to repurchase, or the solicitation of an offer to sell, any of our common stock.

Corporate Information

Aura Biosciences, Inc. was incorporated in Delaware in January 2009. Our principal executive office is located at 80 Guest Street, Boston, MA 02135 and our telephone number is (617) 500-8864. Information about us is available on our corporate website at www.aurabiosciences.com. Information available on our website is not a part of, and is not incorporated into, this prospectus supplement, and you should not consider any information on, or that can be accessed through, our website as part of this prospectus supplement.

Implications of Being an Emerging Growth Company and Smaller Reporting Company

We qualify as an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012, as amended. As an emerging growth company, we may take advantage of specified reduced disclosure and other requirements that are otherwise applicable generally to public companies. These provisions include:

- being permitted to only disclose two years of audited financial statements in addition to any required unaudited interim financial statements with correspondingly reduced “Management’s Discussion and Analysis of Financial Condition and Results of Operations” disclosure;
- reduced disclosure about our executive compensation arrangements;
- not being required to hold advisory votes on executive compensation or to obtain stockholder approval of any golden parachute arrangements not previously approved; and
- an exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting.

We may take advantage of these exemptions until the fifth anniversary of our initial public offering or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth

company on the date that is the earliest of (i) the last day of the fiscal year in which we have total annual gross revenue of \$1.235 billion or more; (ii) December 31, 2026; (iii) the date on which we have issued more than \$1.0 billion in nonconvertible debt during the previous three years; or (iv) the last day of the fiscal year in which we are deemed to be a large accelerated filer under the rules of the SEC which means the market value of our common stock that is held by non-affiliates exceeds \$700 million as of the prior June 30th. We may choose to take advantage of some but not all of these exemptions. We have taken advantage of reduced reporting requirements in this prospectus. Accordingly, the information contained herein may be different from the information you receive from other public companies in which you hold stock. We are in the process of evaluating the benefits of relying on other exemptions and reduced reporting requirements under the JOBS Act. Subject to certain conditions, as an emerging growth company, we may rely on certain of these exemptions, including without limitation, providing an auditor's attestation report on our system of internal controls over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act.

We are also a "smaller reporting company" as defined in the Exchange Act. We may continue to be a smaller reporting company even after we are no longer an emerging growth company. We may take advantage of certain of the scaled disclosures available to smaller reporting companies until the fiscal year following the determination that our voting and non-voting common stock held by non-affiliates is more than \$250 million measured on the last business day of our second fiscal quarter, or our annual revenues are less than \$100 million during the most recently completed fiscal year and our voting and non-voting common stock held by non-affiliates is more than \$700 million measured on the last business day of our second fiscal quarter.

THE OFFERING

Common stock offered by us	39,591,000 shares of our common stock.
Pre-funded warrants offered by us	<p>Pre-funded warrants to purchase up to 3,800,000 shares of our common stock. Each pre-funded warrant is being offered and sold at an offering price of \$5.99999.</p> <p>Each pre-funded warrant will have an initial exercise price per share of \$0.00001, subject to certain adjustments. The purchase price of each pre-funded warrant is equal to the price at which the share of our common stock is being sold in this offering, minus \$0.00001. The pre-funded warrants are exercisable immediately and may be exercised at any time until all of the pre-funded warrants are exercised in full. For more information, see the section titled “Description of Pre-Funded Warrants” on page S-26 of this prospectus supplement. This prospectus supplement also relates to the offering of the shares of our common stock issuable upon exercise of the pre-funded warrants.</p>
Option to purchase additional Shares from us	We have granted the underwriters an option for 30 days from the date of this prospectus supplement to purchase up to an additional 6,508,650 shares of our common stock.
Stock Repurchase	<p>Pursuant to a stock purchase agreement entered into by and between us and Matrix, we have agreed to use approximately \$39.0 million of the net proceeds from this offering to repurchase, in a privately negotiated transaction, 6,922,870 shares of our common stock held by Matrix, which we believe represents all shares of our common stock held by Matrix as of the date hereof, at \$5.64 per share, the price per share at which the underwriters will purchase shares of our common stock in this offering from us.</p> <p>See “Prospectus Supplement Summary—Recent Developments—Stock Repurchase” and “Use of Proceeds.”</p>
Common stock to be outstanding immediately after this offering	<p>103,178,777 shares of common stock, or 109,687,427 shares if the underwriters exercise in full their option to purchase additional shares (assuming none of the pre-funded warrants issued in this offering are exercised).</p> <p>After giving effect to the Stock Repurchase of 6,922,870 shares pursuant to the stock purchase agreement, there will be 96,255,907 shares of our common stock outstanding, or 102,764,557 shares if the underwriters’ option to purchase additional shares of common stock is exercised in full (assuming none of the pre-funded warrants issued in this offering are exercised).</p>
Use of proceeds	We estimate that our net proceeds from this offering will be approximately \$244.1 million, or \$205.1 million after completing the Stock Repurchase, excluding the proceeds, if any, from the exercise of the pre-funded warrants offered hereby and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

We intend to use approximately \$205.1 million of the net proceeds from this offering to advance our clinical programs, including in early choroidal melanoma, and for registration-enabling activities for bel-sar, as well as for general corporate purposes. We intend to use approximately \$39.0 million of the net proceeds from this offering, after deducting underwriting discounts and commissions, for the Stock Repurchase.

We intend to use any net proceeds received from the underwriters' option, if exercised, and our existing cash, cash equivalents and marketable securities, to advance our clinical programs, including in early choroidal melanoma, and for registration-enabling activities for bel-sar, as well as for general corporate purposes.

See "Use of Proceeds" for additional information.

Risk factors

Your investment in our common stock involves substantial risk. See "Risk Factors" beginning on page S-12 of this prospectus supplement and other information included and incorporated by reference in this prospectus supplement and the accompanying prospectus for a discussion of factors that you should carefully consider before deciding to invest in our common stock.

Nasdaq Global Market symbol

"AURA." There is no established public trading market for the pre-funded warrants, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the pre-funded warrants on any securities exchange or recognized trading system.

Except as indicated above, the number of shares of our common stock to be outstanding after this offering set forth above is based on 63,587,777 shares of our common stock outstanding as of December 31, 2025, before giving effect to the Stock Repurchase (which repurchased shares will become authorized but unissued shares following the Stock Repurchase) and excludes the shares of common stock issuable upon exercise of the pre-funded warrants being offered by us in this offering, as well as:

- 6,467,582 shares of our common stock issuable upon the exercise of stock options outstanding as of December 31, 2025, at a weighted-average exercise price of \$7.93 per share;
- 1,669,063 shares of common stock issuable upon the exercise of stock options granted subsequent to December 31, 2025, at a weighted-average exercise price of \$6.14 per share;
- 1,150,098 shares of common stock issuable upon the vesting and settlement of restricted stock units granted subsequent to December 31, 2025;
- 2,690,777 shares of common stock issuable upon the vesting and settlement of restricted stock units outstanding as of December 31, 2025;
- 1,565,471 shares of common stock available for future issuance under our 2021 Employee Stock Purchase Plan as of December 31, 2025;
- 3,571,435 shares of common stock issuable upon the exercise of pre-funded warrants outstanding as of December 31, 2025, at an exercise price of \$0.00001 per share; and
- 3,826,750 shares of common stock issuable upon the exercise of common stock warrants outstanding as of December 31, 2025, at an exercise price of \$4.90 per share.

Unless otherwise indicated, all information in this prospectus supplement assumes no exercise of the outstanding options or warrants to purchase our common stock, no vesting or settlement of restricted stock units described above after December 31, 2025, and no exercise of the pre-funded warrants we are offering to certain investors.

RISK FACTORS

Investing in our common stock involves a high degree of risk. Before you decide to invest in our common stock, you should carefully consider the risks and uncertainties described below and in Part I, Item 1A “Risk Factors” of our most recent Annual Report on Form 10-K, and any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K we file after the date of this prospectus supplement, together with all other information contained in this prospectus supplement and in our filings with the SEC that we have incorporated by reference in this prospectus supplement. If any of the following risks actually occurs, our business, financial condition or results of operations could be adversely affected, which, in turn, could have a negative impact on the price of our common stock. In these circumstances, the market price of our common stock could decline, and you may lose all or part of your investment.

Risks Related to this Offering and the Securities Offered Hereby

If you purchase securities in this offering, you may suffer immediate and substantial dilution of your investment.

The offering price per share (or pre-funded warrant) in this offering will exceed the net tangible book value per share of our common stock outstanding prior to this offering. Therefore, if you purchase securities in this offering, you will pay an offering price per share (or pre-funded warrant) that substantially exceeds our net tangible book value per share after this offering. To the extent shares are issued under outstanding options at exercise prices lower than the price of our common stock in this offering, you will incur further dilution. Our historical net tangible book value as of December 31, 2025 was \$121.1 million, or \$1.90 per share. After giving effect to this offering at the offering price of \$6.00 per share and the offering price of \$5.99999 per pre-funded warrant, and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us (but excluding the shares of common stock to be issued and the proceeds received, if any, from exercises of the pre-funded warrants offered hereby), you will experience immediate dilution of \$2.61 per share, representing the difference between our as adjusted net tangible book value per share as of December 31, 2025 after giving effect to this offering and the Stock Repurchase (but without giving effect to the exercise of the pre-funded warrants offered hereby) and the offering price in this offering. See the section entitled “Dilution” below for a more detailed illustration of the dilution you would incur if you participate in this offering.

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

Aside from the Stock Repurchase, our management will have broad discretion in the application of the net proceeds from this offering, including for any of the purposes described in the section titled “Use of Proceeds,” as well as our existing cash, and you will be relying on the judgment of our management regarding such application. You will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used effectively. Our management might not apply the net proceeds or our existing cash in ways that ultimately increase the value of your investment. If we do not invest or apply the net proceeds from this offering or our existing cash in ways that enhance stockholder value, we may fail to achieve expected results, which could cause our stock price to decline. Pending their use, we may invest the net proceeds from this offering in short-term U.S. Treasury securities with insignificant rates of return. These investments may not yield a favorable return to our stockholders.

You may experience future dilution as a result of future equity offerings.

To raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock at prices that may not be the same as the price per share (or pre-funded warrant) in this offering, including through our “at-the-market” equity offering program. In November 2022, we entered into an Open Market Sale Agreement with Jefferies LLC, or the Sales Agreement,

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pursuant to which we filed a prospectus supplement under which we may sell and issue shares of our common stock having an aggregate offering price of up to \$75.0 million from time to time in transactions that are deemed to be an “at-the-market offering” as defined in Rule 415(a)(4) under the Securities Act. While we do not currently have a prospectus supplement on file with the SEC pursuant to which we may sell shares of our common stock pursuant to the Sales Agreement, we may file an additional prospectus supplement for the purpose of such an “at-the-market” equity offering program. We may sell shares or other securities in any other offering at a price per share that is less than the price per share (or pre-funded warrant) paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock, or securities convertible or exchangeable into common stock, in future transactions may be higher or lower than the price per share (or pre-funded warrant) paid by investors in this offering.

Future sales or issuances of our common stock in the public markets, or the perception of such sales, could depress the trading price of our common stock.

The sale of a substantial number of shares of our common stock or other securities convertible into or exchangeable for our common stock in the public markets, or the perception that such sales could occur, as well as market reaction to the Stock Repurchase, could depress the market price of our common stock and impair our ability to raise capital through the sale of additional equity securities. We may sell large quantities of our common stock at any time pursuant to this prospectus or in one or more separate offerings. We cannot predict the effect that future sales of common stock or other equity-related securities would have on the market price of our common stock.

The trading price of the shares of our common stock could be highly volatile, and purchasers of our common stock could incur substantial losses.

The trading price of our common stock is highly volatile and subject to wide fluctuations in response to various factors, some of which we cannot control. The volatility of our common stock may affect the price at which you could sell the shares of our common stock, and the sale of substantial amounts of our common stock could adversely affect the price of our common stock. Our stock price is likely to continue to be volatile and subject to significant price and volume fluctuations in response to market and other factors, including those described in the sections captioned “Risk Factors” in this prospectus supplement, the accompanying prospectus, our Annual Report on Form 10-K for the year ended December 31, 2025 and the other documents incorporated by reference herein and therein.

As a result, you may not be able to sell your shares of common stock at or above the price at which you purchase them. In addition, the stock market in general, The Nasdaq Global Market and the stock of biotechnology and pharmaceutical companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of our common stock, regardless of our actual operating performance.

There is no public market for the pre-funded warrants being offered by us in this offering.

There is no established public trading market for the pre-funded warrants being sold in this offering, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the pre-funded warrants on any securities exchange or recognized trading system.

Without an active market, the liquidity of the pre-funded warrants will be limited. We will not receive a significant amount or any additional funds upon the exercise of the pre-funded warrants.

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Holders of the pre-funded warrants will have no rights as common stockholders until they acquire our common stock.

Until you acquire shares of our common stock upon exercise of the pre-funded warrants, you will have no rights with respect to our common stock issuable upon exercise of the pre-funded warrants, including the right to receive dividend payments, vote or respond to tender offers. Upon exercise of your pre-funded warrants, you will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

We will not receive any meaningful amount of additional funds upon the exercise of the pre-funded warrants.

Each pre-funded warrant will be exercisable until it is fully exercised and by means of payment of the nominal cash purchase price upon exercise or by means of a “cashless exercise” according to a formula set forth in the pre-funded warrant. Accordingly, we will not receive any meaningful additional funds upon the exercise of the pre-funded warrants.

If we do not maintain a current and effective registration statement relating to the shares of our common stock issuable upon exercise of the pre-funded warrants, holders will only be able to exercise such pre-funded warrants on a “cashless basis.”

If we do not maintain a current and effective registration statement relating to the shares of our common stock issuable upon exercise of the pre-funded warrants at the time that holders wish to exercise such pre-funded warrants, they will only be able to exercise them on a “cashless basis” provided that an exemption from registration is available. As a result, the number of shares of our common stock that holders will receive upon exercise of the pre-funded warrants will be fewer than it would have been had such holder exercised such pre-funded warrants for cash, and holders may be limited in their ability to immediately sell shares upon exercise subject to volume or other securities law limitations. Further, if an exemption from registration is not available, holders would not be able to exercise on a cashless basis and would only be able to exercise their pre-funded warrants for cash if a current and effective registration statement relating to the shares of our common stock issuable upon exercise of the pre-funded warrants is available.

There can be no assurance that the Stock Repurchase will occur on the terms described herein.

The closing of the Stock Repurchase is conditioned upon the closing of this offering and certain other conditions, but this offering is not conditioned upon the consummation of the Stock Repurchase. We cannot provide any assurance that the Stock Repurchase will occur on the terms described herein, or at all. Nothing in this prospectus supplement should be construed as an offer (i) to sell, or the solicitation of an offer to purchase, any of our common stock that we may repurchase, or (ii) to repurchase, or the solicitation of an offer to sell, any of our common stock. In the event the Stock Repurchase is not consummated, we would have additional shares outstanding and investors in our common stock would experience further dilution than anticipated and the failure to consummate such transaction may adversely impact the trading price of our common stock. See “Prospectus Supplement Summary—Recent Developments—Stock Repurchase.”

USE OF PROCEEDS

We expect that the net proceeds from our issuance and sale of 39,591,000 shares of our common stock and pre-funded warrants to purchase up to 3,800,000 shares of our common stock in this offering will be approximately \$244.1 million, excluding the proceeds, if any, from the exercise of the pre-funded warrants offered hereby, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We will receive nominal proceeds, if any, from the exercise of the pre-funded warrants.

We intend to use approximately \$205.1 million of the net proceeds from this offering to advance our clinical programs, including in early choroidal melanoma, and for registration-enabling activities for bel-sar, as well as for general corporate purposes. We intend to use approximately \$39.0 million of the net proceeds from this offering, to repurchase, in a privately negotiated transaction, 6,922,870 shares of our common stock held by Matrix, which we believe represents all shares of our common stock held by Matrix as of the date hereof, at \$5.64 per share, the price per share paid by the underwriters for shares of our common stock in this offering.

We intend to use any net proceeds received from the underwriters' option, if exercised, and our existing cash, cash equivalents and marketable securities, to advance our clinical programs, including in early choroidal melanoma, and for registration-enabling activities for bel-sar, as well as for general corporate purposes.

We believe that the net proceeds from this offering received by the Company and not used for the Stock Repurchase, together with our existing cash, cash equivalents and marketable securities, will enable us to fund our operating expenses and capital expenditure requirements into the second half of 2028. The expected use of the net proceeds from this offering represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. The amounts and timing of our actual expenditures will depend on numerous factors, including the factors described under "Risk Factors" in this prospectus and in the documents incorporated by reference herein, as well as the amount of cash used in our operations. We may find it necessary or advisable to use the net proceeds for other purposes, and, aside from the Stock Repurchase, we will have broad discretion in the application of the net proceeds. Pending the uses described above, we plan to invest the net proceeds from this offering in short- and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

DILUTION

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

As of December 31, 2025, we had a historical net tangible book value of \$121.1 million, or \$1.90 per share of common stock, based on 63,587,777 shares of common stock outstanding. Our historical net tangible book value per share represents total tangible assets less total liabilities, divided by the number of shares of common stock outstanding.

After giving effect to the sale of (i) 39,591,000 shares of our common stock in this offering at the offering price of \$6.00 per share and (ii) pre-funded warrants to purchase 3,800,000 shares of our common stock in this offering at the offering price minus \$0.00001 (excluding, in each case, the shares of common stock to be issued and the proceeds received, if any, from exercises of the pre-funded warrants), and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of December 31, 2025 would have been approximately \$365.2 million, or \$3.54 per share of our common stock. This represents an immediate increase in as adjusted net tangible book value of \$1.64 per share to our existing stockholders and an immediate dilution of \$2.46 per share to investors purchasing our securities in this offering.

After giving effect to this offering and the Stock Repurchase, our as adjusted net tangible book value as of December 31, 2025 would have been approximately \$326.2 million, or \$3.39 per share of our common stock. This represents an immediate decrease in as adjusted net tangible book value of \$0.15 per share to our existing stockholders and an immediate dilution of \$2.61 per share to investors purchasing our securities in this offering.

The following table illustrates this dilution on a per share basis:

Public offering price per share (or pre-funded warrant)	\$6.00
Historical net tangible book value per share as of December 31, 2025	\$ 1.90
Increase in net tangible book value per share attributable to investors in this offering	\$ 1.64
Decrease in net tangible book value per share attributable to the Stock Repurchase	<u>\$(0.15)</u>
As adjusted net tangible book value per share after this offering	<u>3.39</u>
Dilution in net tangible book value per share to investors in this offering	<u>\$2.61</u>

If the underwriters exercise in full their option to purchase additional shares of common stock at the public offering price of \$6.00 per share, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, the as adjusted net tangible book value after this offering would be \$3.53 per share of our common stock, representing an increase of as adjusted net tangible book value of \$1.63 per share to our existing stockholders and an immediate dilution of \$2.47 per share to new investors purchasing shares in this offering.

Investors who purchase common stock upon the exercise of the pre-funded warrants offered hereby may experience dilution depending on our net tangible book value at the time of exercise.

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Except as indicated above, the number of shares of our common stock to be outstanding after this offering set forth above is based on 63,587,777 shares of our common stock outstanding as of December 31, 2025, before giving effect to the Stock Repurchase (which repurchased shares will become authorized but unissued shares following the Stock Repurchase), and excludes the shares of common stock issuable upon exercise of the pre-funded warrants being offered by us in this offering, as well as:

- 6,467,582 shares of our common stock issuable upon the exercise of stock options outstanding as of December 31, 2025, at a weighted-average exercise price of \$7.93 per share;
- 1,669,063 shares of common stock issuable upon the exercise of stock options granted subsequent to December 31, 2025, at a weighted-average exercise price of \$6.14 per share;
- 1,150,098 shares of common stock issuable upon the vesting and settlement of restricted stock units granted subsequent to December 31, 2025;
- 2,690,777 shares of common stock issuable upon the vesting and settlement of restricted stock units outstanding as of December 31, 2025;
- 1,565,471 shares of common stock available for future issuance under our 2021 Employee Stock Purchase Plan as of December 31, 2025;
- 3,571,435 shares of common stock issuable upon the exercise of pre-funded warrants outstanding as of December 31, 2025, at an exercise price of \$0.00001 per share; and
- 3,826,750 shares of common stock issuable upon the exercise of common stock warrants outstanding as of December 31, 2025, at an exercise price of \$4.90 per share.

To the extent that options outstanding as of December 31, 2025, common warrants or pre-funded warrants have been or may be exercised, restricted stock units vest, or other shares issued, investors purchasing our common stock in this offering 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 additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

We have not yet determined whether the pre-funded warrants will be classified and accounted for as liabilities or as stockholders' equity.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock. We currently intend to retain all available funds and any future earnings to fund the growth and development of our business. We do not intend to pay cash dividends to our stockholders 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. Investors should not purchase our common stock with the expectation of receiving cash dividends.

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS OF OUR COMMON STOCK AND PRE-FUNDED WARRANTS

The following discussion is a summary of certain material U.S. federal income tax consequences of the purchase, ownership and disposition of the shares of common stock and pre-funded warrants, which we refer to collectively as the “Securities,” issued pursuant to this offering, but does not purport to be a complete analysis of all potential tax effects. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local or non-U.S. tax laws are not discussed. This discussion is based on the Internal Revenue Code of 1986, as amended, or the Code, Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the U.S. Internal Revenue Service, or the IRS, in effect as of the date of this offering. These authorities may change or be subject to differing interpretations. Any such change or differing interpretation may be applied retroactively in a manner that could adversely affect a holder of the Securities. We have not sought and will not seek any rulings from the IRS regarding the matters discussed below. There can be no assurance the IRS or a court will not take a contrary position regarding the tax consequences of the purchase, ownership and disposition of the Securities.

This discussion is limited to holders that hold the Securities as a “capital asset” within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all U.S. federal income tax consequences relevant to a holder’s particular circumstances, including the impact of any alternative minimum tax provisions of the Code, the unearned income Medicare contribution tax or the special tax accounting rules under Section 451(b) of the Code. In addition, it does not address consequences relevant to holders subject to particular rules, including, without limitation:

- U.S. expatriates and certain former citizens or long-term residents of the United States;
- persons holding the Securities as part of a hedge, straddle or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- banks, insurance companies and other financial institutions;
- brokers, dealers or traders in securities;
- “controlled foreign corporations,” “passive foreign investment companies” and corporations that accumulate earnings to avoid U.S. federal income tax;
- partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein);
- tax-exempt organizations or governmental organizations;
- persons deemed to sell the Securities under the constructive sale provisions of the Code;
- persons holding the Securities as “qualified small business stock” within the meaning of Section 1202 of the Code, or “Section 1244 stock” under Section 1244 of the Code;
- persons who hold or receive the Securities pursuant to the exercise of any employee stock option or otherwise as compensation;
- persons who acquired the Securities in a transaction subject to the gain rollover provisions of the Code (including Section 1045 of the Code);
- persons that own, or have owned, actually or constructively, more than 5% of our common stock and/or our pre-funded warrants;
- “qualified foreign pension funds” as defined in Section 897(1)(2) of the Code and entities all of the interests of which are held by qualified foreign pension funds; and
- tax-qualified retirement plans.

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If a partnership (or other entity treated as a partnership for U.S. federal income tax purposes) holds the Securities, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding the Securities and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

THIS DISCUSSION IS FOR INFORMATION PURPOSES ONLY AND IS NOT INTENDED AS LEGAL OR TAX ADVICE. INVESTORS SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF THE SECURITIES ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.

Treatment of Pre-Funded Warrants

Although the characterization of the pre-funded warrants for U.S. federal income tax purposes is not entirely clear, because the exercise price of the pre-funded warrants is a nominal amount, we expect to treat the pre-funded warrants as stock for U.S. federal income tax purposes. Accordingly, a pre-funded warrant should be treated as a share of our common stock for U.S. federal income tax purposes, and a holder of pre-funded warrants should generally be taxed in the same manner as a holder of common stock, as described below. No gain or loss should be recognized upon the exercise of a pre-funded warrant (other than with respect to cash paid in lieu of a fractional share) and, upon exercise, the holding period of a pre-funded warrant should carry over to the share received. Similarly, the tax basis of the pre-funded warrant should carry over to the share received upon exercise, increased by the exercise price. In certain circumstances, the pre-funded warrants may be exercised on a cashless basis. The U.S. federal income tax treatment of an exercise of a warrant on a cashless basis is not clear, and could differ from the consequences described above. It is possible that a cashless exercise could be a taxable event. U.S. holders are urged to consult their tax advisors as to the consequences of an exercise of a pre-funded warrant on a cashless basis, including with respect to their holding period and tax basis in the shares of common stock received upon exercise.

Except where specifically noted below, the following discussion assumes the characterization described above is respected for U.S. federal income tax purposes. However, this characterization is not binding on the IRS, and the IRS may treat the pre-funded warrants as warrants to acquire shares of our common stock. If so, the tax consequences with respect to an investment in our pre-funded warrants could differ. Holders should consult their tax advisors regarding the risks associated with the acquisition of pre-funded warrants pursuant to this offering (including alternative characterizations).

Tax Considerations Applicable to U.S. Holders

Definition of a U.S. holder

For purposes of this discussion, a “U.S. holder” is any beneficial owner of the Securities that, for U.S. federal income tax purposes, is or is treated as any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation created or organized under the laws of the United States, any state thereof or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust that (1) is subject to the primary supervision of a U.S. court and the control of one or more United States persons (within the meaning of Section 7701(a)(30) of the Code), or (2) has made a valid election under applicable Treasury Regulations to be treated as a United States person.

Distributions

We do not anticipate declaring or paying in the foreseeable future any cash dividends on our common stock. However, if we do make distributions on the Securities, such distributions of cash or property on the Securities will constitute dividends to the extent paid out of our current or accumulated earnings and profits, as determined for U.S. federal income tax purposes. Dividends received by a corporate U.S. holder may be eligible for a dividends received deduction, subject to applicable limitations. Dividends received by certain non-corporate U.S. holders, including individuals, are generally taxed at the lower applicable long-term capital gains rate provided certain holding period and other requirements are satisfied. Distributions in excess of our current and accumulated earnings and profits will constitute a return of capital and first be applied against and reduce a U.S. holder's adjusted tax basis in its Securities, but not below zero. Any excess will be treated as capital gain and will be treated as described below in the section relating to the sale or disposition of the Securities.

Sale or Other Taxable Disposition of the Securities

Upon the sale, exchange or other taxable disposition of the Securities, a U.S. holder generally will recognize capital gain or loss equal to the difference between (i) the amount of cash and the fair market value of any property received upon the sale, exchange or other taxable disposition and (ii) such U.S. holder's adjusted tax basis in the Securities. Such capital gain or loss will be long-term capital gain or loss if the U.S. holder's holding period in such Securities is more than one year at the time of the sale, exchange or other taxable disposition. Long-term capital gains recognized by certain non-corporate U.S. holders, including individuals, generally will be subject to reduced rates of U.S. federal income tax. The deductibility of capital losses is subject to certain limitations.

Constructive Dividends on Pre-Funded Warrants

A holder of a pre-funded warrant may, in some circumstances, be deemed to have received a distribution subject to U.S. federal income tax as a result of an adjustment or the non-occurrence of an adjustment to the exercise price or to the number of shares of common stock issuable upon exercise of the pre-funded warrant. U.S. holders should consult their tax advisors regarding the proper treatment of any adjustments (or the non-occurrence of any adjustments) to the pre-funded warrants.

Information Reporting and Backup Withholding

A U.S. holder may be subject to information reporting and backup withholding on distributions (including deemed distributions) on the Securities, and gross proceeds on the sale or other disposition of the Securities. Certain U.S. holders are exempt from backup withholding, including certain corporations and certain tax-exempt organizations. A U.S. holder will be subject to backup withholding if such holder is not otherwise exempt and such holder:

- (a) fails to furnish the holder's taxpayer identification number, which for an individual is ordinarily his or her social security number;
- (b) furnishes an incorrect taxpayer identification number;
- (c) is notified by the IRS that the holder previously failed to properly report payments of interest or dividends; or fails to certify under penalties of perjury that the holder has furnished a correct taxpayer identification number and that the IRS has not notified the holder that the holder is subject to backup withholding.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a U.S. holder's U.S. federal income tax liability, provided the required information is timely furnished to the IRS. U.S. holders should consult their tax advisors regarding their qualification for an exemption from backup withholding and the procedures for obtaining such an exemption. If

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backup withholding is applied to you, you should consult with your own tax advisor to determine whether you have overpaid your U.S. federal income tax, and whether you are able to obtain a tax refund or credit of the overpaid amount.

Tax Considerations Applicable to Non-U.S. Holders

For purposes of this discussion, a “non-U.S. holder” is a beneficial owner of the Securities that is neither a U.S. holder nor an entity treated as a partnership for U.S. federal income tax purposes.

Distributions

We do not anticipate declaring or paying in the foreseeable future any cash dividends on our common stock. However, if we do make distributions on the Securities, such distributions of cash or property on the Securities will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Distributions in excess of our current and accumulated earnings and profits will first constitute a return of capital and be applied against and reduce a non-U.S. holder’s adjusted tax basis in its Securities, but not below zero. Any excess will be treated as capital gain and will be treated as described below in the section relating to the sale or disposition of the Securities. Because we may not know the extent to which a distribution is a dividend for U.S. federal income tax purposes at the time it is made, for purposes of the withholding rules discussed below we or the applicable withholding agent may treat the entire distribution as a dividend.

Subject to the discussions below regarding backup withholding and foreign accounts, dividends paid to a non-U.S. holder of the Securities that are not effectively connected with the non-U.S. holder’s conduct of a trade or business within the United States will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the dividends (or such lower rate specified by an applicable income tax treaty).

Non-U.S. holders will be entitled to a reduction in or an exemption from withholding on dividends as a result of either (a) an applicable income tax treaty or (b) the non-U.S. holder holding the Securities in connection with the conduct of a trade or business within the United States and dividends being effectively connected with that trade or business. To claim such a reduction in or exemption from withholding, the non-U.S. holder must provide the applicable withholding agent with a properly executed (a) IRS Form W-8BEN or W-8BEN-E (or other applicable documentation) claiming an exemption from or reduction of the withholding tax under the benefit of an income tax treaty between the United States and the country in which the non-U.S. holder resides or is established, or (b) IRS Form W-8ECI stating that the dividends are not subject to withholding tax because they are effectively connected with the conduct by the non-U.S. holder of a trade or business within the United States, as may be applicable. These certifications must be provided to the applicable withholding agent prior to the payment of dividends and may need to be updated periodically. Non-U.S. holders that do not timely provide the applicable withholding agent with the required certification, but that qualify for a reduced rate under an applicable income tax treaty, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

If dividends paid to a non-U.S. holder are effectively connected with the non-U.S. holder’s conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the non-U.S. holder maintains a permanent establishment in the United States to which such dividends are attributable), then, although exempt from U.S. federal withholding tax (provided the non-U.S. holder provides appropriate certification, as described above), the non-U.S. holder will be subject to U.S. federal income tax on such dividends on a net income basis at the regular rates applicable to U.S. persons. In addition, a non-U.S. holder that is a corporation may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on its effectively connected earnings and profits for the taxable year that are attributable to such dividends, as adjusted for certain items. Non-U.S. holders should consult their tax advisors regarding their entitlement to benefits under any applicable income tax treaty.

Sale or Other Taxable Disposition of the Securities

Subject to the discussions below on backup withholding and foreign accounts, a non-U.S. holder will not be subject to U.S. federal income tax on any gain realized upon the sale or other disposition of the Securities unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the non-U.S. holder maintains a permanent establishment in the United States to which such gain is attributable);
- the non-U.S. holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition and certain other requirements are met; or
- the Securities constitute U.S. real property interests, or USRPIs, by reason of our status as a U.S. real property holding corporation, or USRPHC, for U.S. federal income tax purposes at any time within the shorter of the five-year period preceding the disposition or the non-U.S. holder's holding period for our Securities, and our common stock is not regularly traded on an established securities market as defined by applicable Treasury Regulations (although holders of pre-funded warrants are urged to consult their own tax advisors regarding application of the "regularly traded" exception from USRPI status if we are a USRPHC).

Gain described in the first bullet point above will generally be subject to U.S. federal income tax on a net income basis at the regular rates applicable to U.S. persons. A non-U.S. holder that is a foreign corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected gain, as adjusted for certain items.

A non-U.S. holder described in the second bullet point above will be subject to U.S. federal income tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on any gain realized upon the sale or other taxable disposition of the Securities, which may be offset by certain U.S. source capital losses of the non-U.S. holder (even though the individual is not considered a resident of the United States) provided the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses.

With respect to the third bullet point above, we believe we are not currently and do not anticipate becoming a USRPHC. Because the determination of whether we are a USRPHC depends on the fair market value of our USRPIs relative to the fair market value of our other business assets and our non-U.S. real property interests, however, there can be no assurance we are not a USRPHC or will not become one in the future.

Non-U.S. holders should consult their tax advisors regarding potentially applicable income tax treaties that may provide for different rules.

Constructive Dividends on Pre-Funded Warrants

A non-U.S. holder of pre-funded warrants can be treated as receiving deemed payment of a taxable dividend under certain circumstances as a result of an adjustment or the non-occurrence of an adjustment to the exercise price or number of shares of common stock issuable upon exercise of the pre-funded warrant. Any resulting withholding tax attributable to deemed dividends may be collected from other amounts payable or distributable to the non-U.S. holder. Non-U.S. holders should consult their tax advisors regarding the proper treatment of any adjustments to the pre-funded warrants.

Information Reporting and Backup Withholding

A non-U.S. holder will not be subject to backup withholding with respect to distributions on the Securities we make to the non-U.S. holder (including constructive dividends), provided the applicable withholding agent does not have actual knowledge or reason to know such holder is a United States person and the holder certifies its non-U.S. status, such as by providing a valid IRS Form W-8BEN, W-8BEN-E or W-8ECI, or other applicable

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certification. However, information returns generally will be filed with the IRS in connection with any distributions (including deemed distributions) made on the Securities to the non-U.S. holder, regardless of whether any tax was required to be withheld. Copies of these information returns may also be made available under the provisions of a specific treaty or agreement to the tax authorities of the country in which the non-U.S. holder resides or is established.

Information reporting and backup withholding may apply to the proceeds of a sale or other taxable disposition of the Securities within the United States, and information reporting may (although backup withholding generally will not) apply to the proceeds of a sale or other taxable disposition of the Securities outside the United States conducted through certain U.S.-related financial intermediaries, in each case, unless the beneficial owner certifies under penalty of perjury that it is a non-U.S. holder on IRS Form W-8BEN or W-8BEN-E, or other applicable form (and the payor does not have actual knowledge or reason to know that the beneficial owner is a U.S. person) or such owner otherwise establishes an exemption. Proceeds of a disposition of the Securities conducted through a non-U.S. office of a non-U.S. broker generally will not be subject to backup withholding or information reporting.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a non-U.S. holder's U.S. federal income tax liability, provided the required information is timely furnished to the IRS.

Additional Withholding Tax on Payments Made to Foreign Accounts

Withholding taxes may be imposed under the Foreign Account Tax Compliance Act, or FATCA, on certain types of payments made to non-U.S. financial institutions and certain other non-U.S. entities. Specifically, a 30% withholding tax may be imposed on dividends (including deemed dividends) paid on the Securities, or (subject to the proposed Treasury Regulations discussed below) gross proceeds from the sale or other disposition of the Securities paid to a "foreign financial institution" or a "non-financial foreign entity" (each as defined in the Code), unless (1) the foreign financial institution undertakes certain diligence and reporting obligations, (2) the non-financial foreign entity either certifies it does not have any "substantial United States owners" (as defined in the Code) or furnishes identifying information regarding each substantial United States owner, or (3) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements in (1) above, it must enter into an agreement with the U.S. Department of the Treasury requiring, among other things, that it undertake to identify accounts held by certain "specified United States persons" or "United States-owned foreign entities" (each as defined in the Code), annually report certain information about such accounts, and withhold 30% on certain payments to non-compliant foreign financial institutions and certain other account holders. Foreign financial institutions located in jurisdictions that have an intergovernmental agreement with the United States governing FATCA may be subject to different rules.

Under the applicable Treasury Regulations and administrative guidance, withholding under FATCA generally applies to payments of dividends (including deemed dividends). Because we may not know the extent to which a distribution (including a deemed distribution) is a dividend for U.S. federal income tax purposes at the time it is made, for purposes of these withholding rules we or the applicable withholding agent may treat the entire distribution as a dividend. While withholding under FATCA would have applied also to payments of gross proceeds from the sale or other disposition of the Securities, proposed Treasury Regulations eliminate FATCA withholding on payments of gross proceeds entirely. Taxpayers generally may rely on these proposed Treasury Regulations until final Treasury Regulations are issued.

Prospective investors should consult their tax advisors regarding the potential application of these withholding provisions.

DESCRIPTION OF PRE-FUNDED WARRANTS

The following is a brief summary of certain terms and conditions of the pre-funded warrants being offered by this prospectus supplement. The following description is subject in all respects to the provisions contained in the pre-funded warrants.

Form

The pre-funded warrants will be issued as individual warrant agreements to certain investors. The form of pre-funded warrant will be filed as an exhibit to our Current Report on Form 8-K that we expect to file with the SEC in connection with this offering.

Term

The pre-funded warrants will expire on the date the warrant is exercised in full.

Exercisability

The pre-funded warrants are exercisable at any time after their original issuance. The pre-funded warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and by payment in full of the exercise price in immediately available funds for the number of shares of our common stock purchased upon such exercise. However, the holder would receive upon such exercise, the net number of shares of our common stock determined according to the formula set forth in the pre-funded warrant. No fractional shares of our common stock will be issued in connection with the exercise of a pre-funded warrant. In lieu of any fractional shares, we will pay cash equal to the product of such fraction multiplied by the fair market value of one share underlying such pre-funded warrant.

Exercise Limitations

Under the pre-funded warrants, we may not effect the exercise of any pre-funded warrant, and a holder will not be entitled to exercise any portion of any pre-funded warrant, which, upon giving effect to such exercise, would cause the aggregate number of shares of our common stock beneficially owned by the holder (together with its affiliates) to exceed 4.99% or 9.99%, at the holder's election, of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the pre-funded warrants. However, any holder may increase or decrease such percentage to any other percentage not in excess of 19.99% upon at least 61 days' prior notice from the holder to us.

Exercise Price

The exercise price per whole share of our common stock purchasable upon the exercise of the pre-funded warrants is \$0.00001 per share of common stock. The exercise price of the pre-funded warrants and the number of shares of our common stock issuable upon exercise of the pre-funded warrants is subject to appropriate adjustment in the event of certain stock dividends, subdivisions, stock splits, stock combinations, reclassifications, reorganizations or similar events affecting our common stock.

Transferability

Subject to applicable laws and the restrictions on transfer set forth in the pre-funded warrants, the pre-funded warrants may be offered for sale, sold, transferred or assigned without our consent.

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Exchange Listing

We do not intend to apply for listing the pre-funded warrants on The Nasdaq Global Market, any other national securities exchange or any other nationally recognized trading system.

Fundamental Transactions

In the event of a change of control, which generally includes a merger or consolidation resulting in the sale of 50% or more of the voting securities of the Company, the sale of all or substantially all of the assets or voting securities of the Company, or other change of control transaction, the holders of the pre-funded warrants will be entitled to receive upon exercise of the pre-funded warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the pre-funded warrants immediately prior to such change of control without regard to any limitations on exercise contained in the pre-funded warrants, or the Alternate Consideration. If holders of our common stock are given any choice as to the securities, cash or property to be received in a change of control, then the holder will be given the same choice as to the Alternate Consideration it receives upon any exercise of the pre-funded warrant following such change of control.

No Rights as a Stockholder

Except by virtue of such holder's ownership of shares of our common stock, the holder of a pre-funded warrant does not have the rights or privileges of a holder of our common stock, including any voting rights, until the holder exercises the pre-funded warrant. In the event of certain distributions, including cash dividends, if any, to all holders of our common stock for no consideration, the holder of a pre-funded warrant shall be entitled to participate in such distributions to the same extent as if a holder of shares of our common stock, subject to not exceeding the ownership limitations described above under “—Description of Pre-Funded Warrants—Exercise limitations,” in which case such distribution shall be held in abeyance for the benefit of such holder until the earlier of such time as the ownership limitations would not be exceeded or the warrant is exercised.

UNDERWRITING

Leerink Partners LLC, TD Securities (USA) LLC and Evercore Group L.L.C. are acting as representatives of the underwriters and as joint bookrunning managers for this offering. Subject to the terms and conditions set forth in the underwriting agreement among us and the underwriters, we have agreed to sell to the underwriters, and each of the underwriters has agreed, severally and not jointly to purchase from us, the number of shares of common stock and pre-funded warrants set forth opposite its name below.

<u>Underwriter</u>	<u>Number of Shares</u>	<u>Number of Pre-Funded Warrants</u>
Leerink Partners LLC	14,252,760	1,368,000
TD Securities (USA) LLC	13,065,030	1,254,000
Evercore Group L.L.C.	7,126,380	684,000
LifeSci Capital LLC	3,959,100	380,000
Citizens JMP Securities, LLC	1,187,730	114,000
Total	<u>39,591,000</u>	<u>3,800,000</u>

Subject to the terms and conditions set forth in the underwriting agreement, the underwriters have agreed, severally and not jointly, to purchase all of the shares sold under the underwriting agreement if any of the shares are purchased. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the non-defaulting underwriters may be increased or the underwriting agreement may be terminated.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the underwriters may be required to make in respect of those liabilities.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the shares, and subject to other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officers' certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Discounts and Commissions

The representatives have advised us that the underwriters propose initially to offer the shares to the public at the initial public offering price set forth on the cover page of this prospectus supplement and to dealers at that price less a concession not in excess of \$0.2160 per share of common stock or pre-funded warrant. After the initial offering of the shares, the public offering price, concession or any other term of this offering may be changed by the representatives.

The following table shows the initial public offering price, underwriting discounts and commissions and proceeds, before expenses, to us. The information assumes either no exercise or full exercise by the underwriters of their option to purchase additional shares of our common stock.

	<u>Per Share</u>	<u>Per Pre-Funded Warrant</u>	<u>Total</u>	
			<u>Without Option</u>	<u>With Option</u>
Initial public offering price	\$6.00	\$ 5.99999	\$ 260,345,962	\$ 299,397,862
Underwriting discounts and commissions	\$0.36	\$ 0.36000	\$ 15,620,760	\$ 17,963,874
Proceeds to Aura Biosciences, Inc., before expenses	\$5.64	\$ 5.63999	\$ 244,725,202	\$ 281,433,988

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We estimate expenses payable by us in connection with this offering, other than the underwriting discounts and commissions referred to above, will be approximately \$600,000. We also have agreed to reimburse the underwriters for their FINRA counsel fee. In accordance with FINRA Rule 5110, this reimbursed fee is deemed underwriting compensation for this offering.

Option to Purchase Additional Shares

We have granted an option to the underwriters, exercisable for 30 days after the date of this prospectus supplement, to purchase up to 6,508,650 additional shares at the initial public offering price, less underwriting discounts and commissions. If the underwriters exercise this option, each underwriter will be obligated, subject to the conditions contained in the underwriting agreement, to purchase a number of additional shares proportionate to that underwriter's initial amount reflected in the above table.

No Sales of Similar Securities

We, our executive officers and directors and Matrix have agreed not to sell or transfer any common stock or securities convertible into or exchangeable or exercisable for common stock, for 90 days after the date of this prospectus supplement, and one of our other existing security holders has agreed to such restrictions for 60 days after the date of this prospectus supplement, without first obtaining the written consent of Leerink Partners LLC and TD Securities (USA) LLC on behalf of the underwriters. In addition, our former CEO, Elisabet de los Pinos, who is subject to a 90-day lock-up agreement, may sell up to 300,000 shares of common stock during a two-week open trading window, subject to compliance with our insider trading policy, at any time on or after the 46th day after the date of this prospectus supplement, solely in an amount sufficient to cover the exercise price due in connection with the exercise of her outstanding stock options; provided, however, that such shares of common stock issued as a result of such option exercise shall remain subject to the restrictions on transfer set forth in her lock-up agreement. Specifically, we and these other persons have agreed, with certain limited exceptions, not to directly or indirectly:

- offer, sell, lend, assign, transfer, pledge or contract to sell or otherwise dispose of or announce the intention to otherwise dispose of any common stock or securities convertible into or exercisable or exchangeable for common stock;
- enter into, or announce the intention to enter into, any swap, hedge or similar agreement or arrangement (including, without limitation, 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) that transfers, is designed to transfer or reasonably could be expected to transfer in whole or in part, directly or indirectly, the economic consequence of ownership of common stock or securities convertible into or exercisable or exchangeable for common stock;
- engage in, or announce the intention to engage in, any short selling of the common stock or securities convertible into or exercisable or exchangeable for common stock; or
- make any demand or request or exercise any right with respect to the registration of, or file with the SEC a registration statement under the Securities Act relating to, any common stock or securities convertible into or exchangeable or exercisable for any common stock.

The lock-up provisions apply to common stock and to securities convertible into or exchangeable or exercisable for common stock. They also apply to common stock owned now or acquired later by the person executing the lock-up agreement or for which the person executing the lock-up agreement later acquires the power of disposition. The exceptions permit us, among other things and subject to restrictions, to: (i) issue common stock or options pursuant to employee benefit plans, (ii) issue common stock upon exercise of outstanding options or warrants, (iii) issue securities in connection with acquisitions or similar transactions or (iv) file registration statements on Form S-8. The exceptions permit parties to the "lock-up" agreements, among other things and subject to restrictions, to: (i) if a natural person, transfer as a bona fide gift, by will or intestate succession, (ii) if

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a business entity, transfer to an equityholder, if not for value, (iii) if a business entity, in connection with a sale or bona fide transfer in a single transaction of all or substantially all equity interests or to an affiliate, if not for value, (iv) transfer pursuant to change in control, (v) if a trust, distribute to beneficiaries of a trust, (vi) transfer pursuant to agreements in effect as of the date of execution where we have an option to repurchase shares upon termination of the signatory, (vii) enter into transactions related to common stock acquired in open market transactions following this offering, (viii) enter into a 10b5-1(c) trading plan, provided the plan does not permit sales during the lock-up period and to the extent a public announcement, report or filing under the Exchange Act is required of the person executing the lock-up agreement, such announcement, report or filing shall include a statement to the effect that no transfer of common stock may be made under such plan during the lock-up period, (ix) transfer to satisfy tax withholding obligations pursuant to arrangements disclosed herein (x) transfer pursuant to a court order or order of regulatory agency and, with respect to certain signatories, (xi) transfer or dispose shares of our common stock in connection with RSU vesting or settlement, provided such sale is effected pursuant to the Company's policies and procedures solely to cover withholding taxes for such RSUs, and (xii) sales pursuant to a 10b5-1(c) trading plan, provided the plan is established prior to the date hereof and the existence and details of such a plan were communicated to the representatives. The lock-up agreement entered into by Matrix allows it to consummate the Stock Repurchase. In addition, the lock-up provision will not restrict broker-dealers from engaging in market making and similar activities conducted in the ordinary course of their business.

Nasdaq Global Market Listing

Our common stock is listed on The Nasdaq Global Market under the symbol "AURA." We do not intend to apply for listing the pre-funded warrants on Nasdaq, any other national securities exchange or any other nationally recognized trading system.

Price Stabilization, Short Positions and Penalty Bids

Until the distribution of the shares is completed, SEC rules may limit underwriters and selling group members from bidding for and purchasing our common stock. However, the representative may engage in transactions that stabilize the price of the common stock, such as bids or purchases to peg, fix or maintain that price.

In connection with this offering, the underwriters may purchase and sell our common stock in the open market. These transactions may include short sales, purchases on the open market to cover positions created by short sales and stabilizing transactions. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in this offering. "Covered" short sales are sales made in an amount not greater than the underwriters' option to purchase additional shares described above. The underwriters may close out 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 close out 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 shares through the option to purchase additional shares granted to them under the underwriting agreement described above. "Naked" short sales are sales in excess of such option. The underwriters must close out any naked short position by purchasing shares in the open market. A short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of our common stock in the open market after pricing that could adversely affect investors who purchase in this offering. Stabilizing transactions consist of various bids for or purchases of shares of common stock made by the underwriters in the open market prior to the closing of this 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.

Similar to other purchase transactions, the underwriters' purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in

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the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. The underwriters may conduct these transactions on The Nasdaq Global Market, in the over-the-counter market or otherwise.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. In addition, neither we nor any of the underwriters make any representation that the representatives will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

Electronic Distribution

In connection with this offering, certain of the underwriters or securities dealers may distribute prospectuses by electronic means, such as e-mail.

Other Relationships

The underwriters and certain of their affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. Some of the underwriters and certain of their affiliates have in the past and may in the future engage in investment banking and other commercial dealings in the ordinary course of business with us and our affiliates, for which they may in the future receive customary fees, commissions and expenses. For example, Leerink Partners LLC, TD Securities (USA) LLC and Evercore Group L.L.C. have each previously served as an underwriter in prior offerings of our common stock.

In addition, in the ordinary course of their business activities, the underwriters and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers.

Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Selling Restrictions

Notice to Prospective Investors in the European Economic Area

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

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provided that no such offer of shares shall require us or any of the representatives 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 any shares in any Relevant State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares, and the expression “Prospectus Regulation” means Regulation (EU) 2017/1129, as amended.

Notice to Prospective Investors in the United Kingdom

No shares 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 shares which has been approved by the Financial Conduct Authority, except that the shares may be offered to the public in the United Kingdom at any time:

- A. to any legal entity which is a qualified investor as defined under Article 2 of the UK Prospectus Regulation;
- B. 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
- C. in any other circumstances falling within Section 86 of the Financial Services and Markets Act 2000, or the FSMA,

provided that no such offer of the shares shall require us or any representative 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 shares 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 shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares 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.

Notice to Prospective Investors in Canada

The shares may be sold 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 shares 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.

Notice to Prospective Investors in Switzerland

The securities will not be offered, directly or indirectly, to the public in Switzerland and this prospectus supplement does not constitute a public offering prospectus as that term is understood pursuant to article 652a or 1156 of the Swiss Federal Code of Obligations.

Notice to Prospective Investors in Hong Kong

The shares have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (a) to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong), or the SFO, of Hong Kong and any rules made thereunder; or (b) in other circumstances which do not result in the document being a “prospectus” as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong, the CO, or which do not constitute an offer to the public within the meaning of the CO. No advertisement, invitation or document relating to the shares has been or may be issued or has been or may be in the possession of any person for the purposes of issue, 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 of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” as defined in the SFO and any rules made thereunder.

Notice to Prospective Investors in Singapore

Each underwriter has acknowledged that this prospectus supplement has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, each underwriter has represented and agreed that it has not offered or sold any shares or caused the shares to be made the subject of an invitation for subscription or purchase and will not offer or sell any shares or cause the shares to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, this prospectus supplement or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares, whether directly or indirectly, to any person in Singapore other than:

- A. to an institutional investor (as defined in Section 4A of the Securities and Futures Act (Chapter 289) of Singapore, as modified or amended from time to time, or the SFA) pursuant to Section 274 of the SFA;
- B. 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
- C. otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are purchased under Section 275 of the SFA by a relevant person which is:

- A. 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; or
- B. a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities or securities-based derivatives contracts (each term as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries’ rights and interest (however described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the shares pursuant to an offer made under Section 275 of the SFA except:

- (i). to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i) (B) of the SFA;

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- (ii). where no consideration is or will be given for the transfer;
- (iii). where the transfer is by operation of law;
- (iv). as specified in Section 276(7) of the SFA; or
- (v). as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018.

Singapore SFA Product Classification—In connection with Section 309B of the SFA and the CMP Regulations 2018, unless otherwise specified before an offer of shares, we have determined, and hereby notify all relevant persons (as defined in Section 309A(1) of the SFA), that the shares 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).

Notice to Prospective Investors in Israel

In the State of Israel this prospectus supplement shall not be regarded as an offer to the public to purchase shares under the Israeli Securities Law, 5728—1968, which requires a prospectus to be published and authorized by the Israel Securities Authority, if it complies with certain provisions of Section 15 of the Israeli Securities Law, 5728—1968, including, inter alia, if: (i) the offer is made, distributed or directed to not more than 35 investors, subject to certain conditions, or the Addressed Investors; or (ii) the offer is made, distributed or directed to certain qualified investors defined in the First Addendum of the Israeli Securities Law, 5728—1968, subject to certain conditions, collectively, the Qualified Investors. The Qualified Investors shall not be taken into account in the count of the Addressed Investors and may be offered to purchase securities in addition to the 35 Addressed Investors. We have not and will not take any action that would require it to publish a prospectus in accordance with and subject to the Israeli Securities Law, 5728—1968. We have not and will not distribute this prospectus supplement or make, distribute or direct an offer to subscribe for our shares to any person within the State of Israel, other than to Qualified Investors and up to 35 Addressed Investors.

Qualified Investors may have to submit written evidence that they meet the definitions set out in the First Addendum to the Israeli Securities Law, 5728—1968. In particular, we may request, as a condition to be offered shares, that Qualified Investors will each represent, warrant and certify to us and/or to anyone acting on our behalf: (i) that it is an investor falling within one of the categories listed in the First Addendum to the Israeli Securities Law, 5728—1968; (ii) which of the categories listed in the First Addendum to the Israeli Securities Law, 5728—1968 regarding Qualified Investors is applicable to it; (iii) that it will abide by all provisions set forth in the Israeli Securities Law, 5728—1968 and the regulations promulgated thereunder in connection with the offer to be issued shares; (iv) that the shares that it will be issued are, subject to exemptions available under the Israeli Securities Law, 5728—1968: (a) for its own account; (b) for investment purposes only; and (c) not issued with a view to resale within the State of Israel, other than in accordance with the provisions of the Israeli Securities Law, 5728—1968; and (v) that it is willing to provide further evidence of its Qualified Investor status. Addressed Investors may have to submit written evidence in respect of their identity and may have to sign and submit a declaration containing, inter alia, the Addressed Investor’s name, address and passport number or Israeli identification number.

We have not authorized and do not authorize the making of any offer of securities through any financial intermediary on our behalf, other than offers made by the underwriters and their respective affiliates, with a view to the final placement of the securities as contemplated in this document. Accordingly, no purchaser of the shares, other than the underwriters, is authorized to make any further offer of shares on our behalf or on behalf of the underwriters.

LEGAL MATTERS

Goodwin Procter LLP, Boston, Massachusetts, which has acted as our counsel in connection with this offering, will pass upon the validity of the shares of common stock offered hereby. Cooley LLP, New York, New York, has acted as counsel to the underwriters in connection with this offering.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2025, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at www.sec.gov and on our investor website at ir.aurabiosciences.com/. Our website is not a part of this prospectus and is not incorporated by reference in this prospectus.

This prospectus supplement is part of a registration statement that we have filed with the SEC. Certain information in the registration statement has been omitted from this prospectus in accordance with the rules of the SEC. For more detail about us and any securities that may be offered by this prospectus supplement, you may examine the registration statement of which this prospectus forms a part, including its exhibits and schedules.

Statements contained in this prospectus as to the contents of any contract or other document are not necessarily complete, and in each instance we refer you to the copy of the contract or document filed as an exhibit to the registration statement, each such statement being qualified in all respects by such reference.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference the information we file with it, which means that we can disclose important information to you by referring you to those publicly available documents. The information incorporated by reference is deemed to be part of this prospectus supplement and the accompanying prospectus. Because we are incorporating by reference future filings with the SEC, this prospectus supplement and the accompanying prospectus are continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus supplement and the accompanying prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus supplement and the accompanying prospectus or in any document previously incorporated by reference have been modified or superseded.

This prospectus supplement incorporates by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act (in each case, other than those documents or the portions of those documents not deemed to be filed) between the date of the initial registration statement and until the offering of the securities under the registration statement is terminated or completed:

- Our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2025, filed with the SEC on March 30, 2026;
- The information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2025 from our Definitive Proxy Statement on [Schedule 14A](#), filed with the SEC on April 20, 2026;
- Our Current Reports on Form 8-K filed with the SEC on [March 30, 2026](#), [May 4, 2026](#) and [May 4, 2026](#); and
- The description of our common stock contained in our Registration Statement on Form 8-A filed on October 26, 2021, and as set forth by the description of the Registrant's common stock set forth in [Exhibit 4.1](#) to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2025, filed with the SEC on March 30, 2026, including any other amendments or reports filed for the purpose of updating such description.

Unless specifically stated to the contrary, information that we furnish (and that is not deemed "filed" with the SEC) under Items 2.02 and 7.01 of any Current Reports on Form 8-K, including the related exhibits under Item 9.01, is not incorporated by reference into this prospectus supplement or the registration statement of which this prospectus supplement is a part.

Upon written or oral request, we will provide, without charge, to each person, including any beneficial owner, to whom a copy of this prospectus supplement is delivered, a copy of the documents incorporated by reference into this prospectus supplement but not delivered with the prospectus supplement. You may request, and we will provide you with, a copy of these filings, at no cost. You should direct written requests to: Aura Biosciences, Inc., 80 Guest Street, Boston, MA 02135, Attention: Investor Relations, or you may call us at (617) 500-8864. You may also access these documents, free of charge on the SEC's website at www.sec.gov.

Any statement contained in this prospectus supplement, or in a document all or a portion of which is incorporated by reference, shall be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained in this 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 supplement.

The information accessible through any website referred to in this prospectus supplement or any document incorporated herein is not, and should not be deemed to be, a part of this prospectus supplement.

PROSPECTUS

aura

\$350,000,000

AURA BIOSCIENCES, INC.

**Common Stock
Preferred Stock
Debt Securities
Warrants
Units**

We may from time to time issue, in one or more series or classes, up to \$350,000,000 in aggregate principal amount of our common stock, preferred stock, debt securities, warrants and/or units, 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 to this prospectus and any related free writing prospectus.

We may offer these securities separately or together in units. Each time we sell securities described herein, we will provide prospective investors with a supplement to this prospectus that will specify the terms of the securities being offered. We may sell these securities to or through underwriters or dealers and also to other purchasers or through agents. We will set forth the names of any underwriters or agents, and any fees, conversions, or discount arrangements, in the applicable prospectus supplement. We may not sell any securities under this prospectus without delivery of the applicable prospectus supplement. You should read this document and any prospectus supplement or amendment carefully before you invest in our securities.

Our common stock is listed on The Nasdaq Global Market under the symbol "AURA." On March 26, 2024, the closing price for our common stock, as reported on The Nasdaq Global Market, was \$7.63 per share. Our principal executive offices are located at 80 Guest Street, Boston, MA 02135.

Investing in these securities involves certain risks. See "[Risk Factors](#)" on page 1 of this prospectus as well as those included in any accompanying prospectus supplement and in the documents incorporated by reference in this prospectus for a discussion of the factors you should carefully consider before deciding to purchase these securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is April 5, 2024.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, which we refer to as the “SEC,” utilizing a “shelf” registration process. Under this shelf registration process, we may from time to time sell any combination of the securities described in this prospectus in one or more offerings for an aggregate initial offering price of up to \$350,000,000.

This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide one or more prospectus supplements that will contain specific information about the terms of the offering. The prospectus supplement may also add, update or change information contained in this prospectus. This prospectus, together with any accompanying prospectus supplement, contains important information you should know before investing in our securities, including important information about us and the securities being offered. You should read both this prospectus and the accompanying prospectus supplement together with the additional information described under the headings “Where You Can Find More Information” and “Incorporation by Reference” beginning on page 28 of this prospectus.

You should rely only on the information contained in or incorporated by reference in this prospectus, any accompanying prospectus supplement or in any related free writing prospectus filed by us with the SEC. We have not authorized anyone to provide you with different information. This prospectus and the accompanying prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in the accompanying prospectus supplement or an offer to sell or the solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful. You should assume that the information appearing in this prospectus, any prospectus supplement, the documents incorporated by reference and any related free writing prospectus is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed materially since those dates. This prospectus, any applicable prospectus supplement and the information incorporated herein or therein by reference contains market data, industry statistics and other data that have been obtained or compiled from information made available by independent third parties. We have not independently verified the accuracy and completeness of such data.

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

As used in this prospectus, unless the context otherwise requires, references to the “Aura,” “company,” “we,” “us” and “our” refer to Aura Biosciences, Inc. and, where appropriate, our subsidiaries.

We own various U.S. federal trademark applications and unregistered trademarks, including our company name. All other trademarks or trade names referred to in this prospectus are the property of their respective owners. Solely for convenience, the trademarks and trade names in this prospectus are referred to without the symbols ® and ™, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully consider the risks set forth in our filings with the SEC that are incorporated by reference herein and any prospectus supplement, as well as other information we include or incorporate by reference into this prospectus and any applicable prospectus supplement, before making an investment decision. Our business, financial condition or results of operations could be materially adversely affected by the materialization of any of these risks. The trading price of our securities could decline due to the materialization of any of these risks, and you may lose all or part of your investment. This prospectus and the documents incorporated herein by reference also contain forward-looking statements that involve risks and uncertainties. Actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks described in the documents incorporated herein by reference, including our most recent Annual Report on Form 10-K, our Quarterly Reports on Form 10-Q and our Current Reports on Form 8-K and the other documents we file with the SEC that are deemed incorporated by reference into this prospectus.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents that we incorporate by reference, includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Forward-looking statements relate to, among others, our plans, objectives and expectations for our business, operations and financial performance and condition, and can be identified by terminology such as “may,” “will,” “could,” “should,” “expect,” “intend,” “plan,” “anticipate,” “believe,” “estimate,” “predict,” “potential,” “project,” “seek,” “endeavor,” “target,” “continue” and similar expressions that do not relate solely to historical matters. Forward-looking statements are based on management’s belief and assumptions and on information currently available to management. Although we believe that the expectations reflected in forward-looking statements are reasonable, such statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by forward-looking statements.

Forward-looking statements include, but are not limited to, statements about:

- the initiation, timing, progress, results, and cost of our research and development programs and our current and future preclinical studies and clinical trials, including statements regarding the timing of initiation and completion of studies or trials and related preparatory work, the period during which the results of the trials will become available, and our research and development programs;
- our ability to efficiently develop our existing product candidates and discover new product candidates;
- our ability to successfully manufacture our drug substances and product candidates for preclinical use, for clinical trials and on a larger scale for commercial use, if approved;
- the ability and willingness of our third-party strategic collaborators to continue research and development activities relating to our development candidates and product candidates;
- our ability to obtain funding for our operations necessary to complete further development and commercialization of our product candidates;
- our ability to obtain and maintain regulatory approval of our product candidates;
- our ability to commercialize our products, if approved;
- the pricing and reimbursement of our product candidates, if approved;
- the implementation of our business model, and strategic plans for our business and product candidates;
- the scope of protection we are able to establish and maintain for intellectual property rights covering our product candidates;
- estimates of our future expenses, revenues, capital requirements and our needs for additional financing;
- the potential benefits of strategic collaboration agreements, our ability to enter into strategic collaborations or arrangements and our ability to attract collaborators with development, regulatory and commercialization expertise;
- future agreements with third parties in connection with the commercialization of product candidates and any other approved product;
- the size and growth potential of the markets for our product candidates and our ability to serve those markets;
- our financial performance;
- the rate and degree of market acceptance of our product candidates;
- regulatory developments in the United States and foreign countries;

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- our ability to produce our products or product candidates with advantages in turnaround times or manufacturing cost;
- the success of competing therapies that are or may become available;
- our ability to attract and retain key scientific or management personnel;
- the impact of laws and regulations;
- developments relating to our competitors and our industry;
- the effects of macroeconomic conditions, including rising interest rates and inflation, on our business operations; and
- other risks and uncertainties, including those listed under the caption “Risk Factors.”

We may from time-to-time provide estimates, projections and other information concerning our industry, our business and the markets for our programs and product candidates. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances that are assumed in this information. Unless otherwise expressly stated, we obtained this industry, business, market, and other data from our own internal estimates and research as well as from reports, research surveys, studies, and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data and similar sources. While we are not aware of any misstatements regarding any third-party information presented in this prospectus, their estimates, in particular, as they relate to projections, involve numerous assumptions, are subject to risks and uncertainties and are subject to change based on various factors. You should read this prospectus, any applicable prospectus supplement and any related free writing prospectus and the documents that we reference therein and have filed with the SEC as exhibits thereto completely and with the understanding that our actual future results may be materially different from any future results expressed or implied by these forward-looking statements. These estimates involve numerous assumptions, are subject to risks and uncertainties and are subject to change based on various factors, including those discussed under “Item 1A: Risk Factors” and elsewhere in our most recent Annual Report on Form 10-K, our subsequent Quarterly Reports on Form 10-Q and our Current Reports on Form 8-K, and the section of any accompanying prospectus supplement titled “Risk Factors.”

OUR COMPANY

Overview

We are a clinical-stage biotechnology company developing precision immunotherapies to treat a range of solid tumors designed to preserve the function of organs afflicted with cancer. Our lead candidate bel-sar is in late-stage clinical development for the treatment of patients with primary choroidal melanoma, and other ocular oncology indications as well as in early-stage clinical development in bladder cancer. There is significant unmet need for novel treatments for patients with choroidal melanoma, given the limitations of the current standard of care, or SoC, and patient reluctance to undergo radiotherapy in the form of either plaque brachytherapy or proton beam therapy, both highly-invasive therapies that result in significant vision loss, and potential blindness. Enucleation, or surgical removal of the affected eye is another treatment option for patients with choroidal melanoma, in which patients lose all vision without the possibility of vision restoration. We are evaluating the safety and efficacy of bel-sar as a potential vision-sparing therapy in our ongoing global Phase 3 CoMpass trial for the first-line treatment of adult patients with early-stage choroidal melanoma. Moreover, we intend to assess the safety and efficacy of bel-sar in treating a range of other solid tumors, including bladder cancer as an alternative to Bacillus Calmette–Guérin, or BCG, therapy. We believe bel-sar, if approved, has the potential to change the current treatment paradigm for patients with ocular cancers and other solid tumors.

Bel-sar has shown clinical benefit and has been generally well-tolerated in clinical trials to date. Interim 12-month results from a Phase 2 trial that evaluated 22 patients in an open label dose escalation study of bel-sar delivered via suprachoroidal, or SC, injection followed by laser light activation was presented at the 2023 American Academy of Ophthalmology. The results demonstrated that patients who received three cycles of bel-sar therapy showed a local complete response with a tumor control rate of 80% (8/10) and a visual acuity preservation rate of 90% (9/10). The majority of patients were at high-risk for vision loss with tumors close to the fovea or optic disk. For 80% of patients that showed a local complete response, data showed a statistically significant reduction in tumor growth rate (-0.382 mm/yr, $p = <0.0001$) compared to each patient's documented growth rate at study entry. The overall tolerability profile of bel-sar was favorable, with no dose-limiting toxicities, treatment-related serious adverse events or significant adverse events reported as of August 3, 2023. The interim Phase 2 results demonstrated an improved risk-benefit profile over intravitreal therapy, or IVT, administration and confirmed the SC delivery route of administration for the Phase 3 program. Final Phase 2 data from this study is expected to be presented by the end of 2024.

We are developing a pipeline of virus-like drug conjugates, or VDCs, a novel class of drugs with a dual mechanism of action, that promote cancer cell death by both the delivery of the cytotoxic payload to generate acute necrosis and activation of a secondary immune mediated response. Bel-sar, our lead VDC candidate, consists of an HPV, or human papilloma virus-derived virus-like particle, or VLP, conjugated to hundreds of infrared laser-activated molecules. The VDC is designed in a way that prevents the conjugation from interfering with tumor binding enabling its selectivity to tumor cells but not to normal cells.

Laser activation of bel-sar is designed to result in precise tumor cell killing with minimal damage to surrounding healthy tissues. In the absence of bel-sar activation or binding to the tumor cell membrane, there is no cytotoxic effect. Multiple laser treatments, following a single dose of bel-sar, increase antitumor activity because of the reoxygenation of the tumor and the photostability of bel-sar. Finally, acute necrosis triggers immunogenic cell death leading to the generation of an adaptive, long-term antitumor immune response. The tumor targeting specificity of VDCs is driven by the selective binding of the VLPs to a subset of modified tumor associated glycosaminoglycans, or GAGs, that are part of the heparan sulphate chain of heparan sulfate proteoglycans or HSPGs, expressed on the tumor cell membrane. This targeting mechanism enables the delivery of multiple types of cytotoxic payloads directly to a wide range of solid tumors.

Our goal is to develop precision oncology immunotherapeutics in solid cancer indications where we can preserve the function of the organ afflicted by the cancer. We are developing bel-sar in a number of indications in ocular

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oncology, with the goal of preserving vision and preventing blindness in patients. Our lead indication is a potential multi-billion dollar market opportunity. We are also evaluating bel-sar in urologic oncology indications, initially in bladder cancer, which is one of the most expensive cancers to treat on a per patient basis. The global market for bladder cancer is expected to be greater than \$8.0 billion by 2032.

Our initial focus is in ocular and urologic oncology, both areas of high unmet medical need where local targeted therapies may enable early intervention. We envision the potential for development of additional therapeutic areas in addition to ocular and urologic cancers.

Corporate History

Aura Biosciences, Inc. was incorporated in Delaware in January 2009. Our principal executive office is located at 80 Guest Street, Boston, MA 02135 and our telephone number is (617) 500-8864. Information about us is available on our corporate websites at www.aurabiosciences.com. Information available on our website is not a part of, and is not incorporated into, this prospectus. We trade on The Nasdaq Global Market under the ticker symbol "AURA". We do not incorporate the information on or accessible through our website into this prospectus, and you should not consider any information on, or that can be accessed through, our website as part of this prospectus.

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

We qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, as amended, or the JOBS Act. As an emerging growth company, we may take advantage of specified reduced disclosure and other requirements that are otherwise applicable generally to public companies. These provisions include:

- being permitted to only disclose two years of audited financial statements in addition to any required unaudited interim financial statements with correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure;
- reduced disclosure about our executive compensation arrangements;
- not being required to hold advisory votes on executive compensation or to obtain stockholder approval of any golden parachute arrangements not previously approved; and
- an exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting.

We may take advantage of these exemptions until the fifth anniversary of our initial public offering or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company on the date that is the earliest of (i) the last day of the fiscal year in which we have total annual gross revenue of \$1.235 billion or more; (ii) December 31, 2026; (iii) the date on which we have issued more than \$1.0 billion in nonconvertible debt during the previous three years; or (iv) the last day of the fiscal year in which we are deemed to be a large accelerated filer under the rules of the SEC, which means the market value of our common stock that is held by non-affiliates exceeds \$700 million as of the prior June 30th. We may choose to take advantage of some but not all of these exemptions. We have taken advantage of reduced reporting requirements in this prospectus. Accordingly, the information contained herein may be different from the information you receive from other public companies in which you hold stock. We are in the process of evaluating the benefits of relying on other exemptions and reduced reporting requirements under the JOBS Act. Subject to certain conditions, as an emerging growth company, we may rely on certain of these exemptions, including without limitation, providing an auditor's attestation report on our system of internal controls over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act.

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We are also a “smaller reporting company” as defined in the Exchange Act. We may continue to be a smaller reporting company even after we are no longer an emerging growth company. We may take advantage of certain of the scaled disclosures available to smaller reporting companies until the fiscal year following the determination that our voting and non-voting common stock held by non-affiliates is more than \$250 million measured on the last business day of our second fiscal quarter, or our annual revenues are less than \$100 million during the most recently completed fiscal year and our voting and non-voting common stock held by non-affiliates is more than \$700 million measured on the last business day of our second fiscal quarter.

USE OF PROCEEDS

We intend to use the net proceeds from the sale of any securities offered under this prospectus for general corporate purposes unless otherwise indicated in the applicable prospectus supplement. General corporate purposes may include research and development and clinical development costs to support the advancement of our product candidates, potential strategic acquisitions or licensing of complementary businesses, services or technologies, expansion of our technology infrastructure and capabilities, working capital, capital expenditures and other general corporate purposes. We may temporarily invest the net proceeds in a variety of capital preservation instruments, including short-term, investment-grade, interest-bearing instruments and U.S. government securities, or may hold such proceeds as cash, until they are used for their stated purpose. We have not determined the amount of net proceeds to be used specifically for such purposes. As a result, management will retain broad discretion over the allocation of net proceeds.

SECURITIES THAT MAY BE OFFERED

This prospectus contains summary descriptions of the securities we may offer from time to time. These summary descriptions are not meant to be complete descriptions of each security. The particular terms of any security will be described in the applicable prospectus supplement. This prospectus provides you with a general description of the securities we may offer. Each time we sell securities described herein, we will provide prospective investors with a supplement to this prospectus that will contain specific information about the terms of that offering, including the specific amounts, prices and terms of the securities offered.

We may sell the securities to or through underwriters, dealers or agents, directly to purchasers or through a combination of any of these methods of sale or as otherwise set forth below under “Plan of Distribution.” We, as well as any agents acting on our behalf, reserve the sole right to accept and to reject in whole or in part any proposed purchase of securities. Any prospectus supplement will set forth the names of any underwriters, dealers, agents or other entities involved in the sale of securities described in that prospectus supplement and any applicable fee, commission or discount arrangements with them.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock is intended as a summary only and therefore is not a complete description of our capital stock. This description is based upon, and is qualified by reference to, our certificate of incorporation, our bylaws, and applicable provisions of Delaware corporate law. You should read our certificate of incorporation and our bylaws, in each case, as amended and supplemented, which are filed as exhibits to the registration statement of which this prospectus forms a part, for the provisions that are important to you.

General

Our authorized capital stock consists of 150,000,000 shares of common stock, par value \$0.00001 per share, and 10,000,000 shares of preferred stock, par value \$0.00001 per share, all of which shares of preferred stock are undesignated.

Common stock

The holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of common stockholders. The holders of our common stock do not have any cumulative voting rights. The holders of our common stock are entitled to receive ratably any dividends declared by our board of directors out of funds legally available for that purpose, subject to any preferential dividend rights of any outstanding preferred stock. Our common stock has no preemptive rights, conversion rights or other subscription rights or redemption or sinking fund provisions.

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in all assets remaining after payment of all debts and other liabilities and any liquidation preference of any outstanding preferred stock.

Preferred stock

Our board of directors has the authority, without further action by our stockholders, to issue up to 10,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting, or the designation of, such series, any or all of which may be greater than the rights of common stock. The issuance of our preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon our liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of our Company or other corporate action.

No shares of preferred stock are outstanding as of the date of this prospectus.

Registration rights

Certain of our stockholders are entitled to rights with respect to the registration of these securities under the Securities Act. These rights are provided under the terms of our Fifth Amended and Restated Investors' Rights Agreement, dated as of March 18, 2021, or the Investors' Rights Agreement. The Investors' Rights Agreement is between us and the holders of our preferred stock. The Investors' Rights Agreement includes demand registration rights, short-form registration rights, and piggyback registration rights. All fees, costs and expenses of underwritten registrations under this agreement will be borne by us and all selling expenses, including underwriting discounts and selling commissions, will be borne by the holders of the shares being registered.

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Demand Registration Rights

Certain of our stockholders are entitled to demand registration rights. Under the terms of our Investors' Rights Agreement, we will be required, upon the written request of a majority of holders of the registrable securities then outstanding that would result in an aggregate offering price of at least \$5.0 million, to file a registration statement and to use commercially reasonable efforts to effect the registration of all or a portion of these shares for public resale.

Short-Form Registration Rights

Pursuant to the Investors' Rights Agreement, if we are eligible to file a registration statement on Form S-3, upon the written request from any such holder to sell registrable securities at an aggregate price of at least \$3.0 million, we will be required to use commercially reasonable efforts to effect a registration of such shares. We are required to effect only two registrations in any twelve-month period pursuant to this provision of the Investors' Rights Agreement.

Piggyback Registration Rights

If we register any of our securities either for our own account or for the account of other security holders, the holders of these shares are entitled to include their shares in the registration. Subject to certain exceptions contained in the Investors' Rights Agreement, we and the underwriters may limit the number of shares included in the underwritten offering to the number of shares which we and the underwriters determine in our sole discretion will not jeopardize the success of the offering.

Indemnification

The Investors' Rights Agreement contains customary cross-indemnification provisions, under which we are obligated to indemnify holders of registrable securities in the event of material misstatements or omissions in the registration statement attributable to us, and they are obligated to indemnify us for material misstatements or omissions attributable to them.

Expiration of Registration Rights

The demand registration rights and short-form registration rights granted under the Investors' Rights Agreement will terminate upon the earlier of (i) November 2, 2026 (ii) a liquidation event and (iii) with respect to any particular stockholder, when such stockholder is able to sell all of its shares pursuant to Rule 144 or any similar exemption under the Securities Act during any three-month period without registration.

Anti-takeover effects of Delaware law and certain provisions of our certificate of incorporation and bylaws

Our certificate of incorporation and bylaws include a number of provisions that may have the effect of delaying, deferring or preventing another party from acquiring control of us and encouraging persons considering unsolicited tender offers or other unilateral takeover proposals to negotiate with our board of directors rather than pursue non-negotiated takeover attempts. These provisions include the items described below.

Board composition and filling vacancies

Our certificate of incorporation provides for the division of our board of directors into three classes serving staggered three-year terms, with one class being elected each year. Our certificate of incorporation also provides that directors may be removed only for cause and then only by the affirmative vote of the holders of two-thirds or more of the shares then entitled to vote at an election of directors. Furthermore, any vacancy on our board of directors, however occurring, including a vacancy resulting from an increase in the size of our board, may only

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be filled by the affirmative vote of a majority of our directors then in office even if less than a quorum. The classification of directors, together with the limitations on removal of directors and treatment of vacancies, has the effect of making it more difficult for stockholders to change the composition of our board of directors.

No written consent of stockholders

Our certificate of incorporation provides that all stockholder actions are required to be taken by a vote of the stockholders at an annual or special meeting, and that stockholders may not take any action by written consent in lieu of a meeting. This limit may lengthen the amount of time required to take stockholder actions and would prevent the amendment of our bylaws or removal of directors by our stockholders without holding a meeting of stockholders.

Meetings of stockholders

Our certificate of incorporation and bylaws provide that only a majority of the members of our board of directors then in office may call special meetings of stockholders and only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders. Our bylaws limit the business that may be conducted at an annual meeting of stockholders to those matters properly brought before the meeting.

Advance notice requirements

Our bylaws establish advance notice procedures with regard to stockholder proposals relating to the nomination of candidates for election as directors or new business to be brought before meetings of our stockholders. These procedures provide that notice of stockholder proposals must be timely given in writing to our corporate secretary prior to the meeting at which the action is to be taken. Generally, to be timely, notice must be received at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary date of the annual meeting for the preceding year. Our bylaws specify the requirements as to form and content of all stockholders' notices. These requirements may preclude stockholders from bringing matters before the stockholders at an annual or special meeting.

Amendment to certificate of incorporation and bylaws

Any amendment of our certificate of incorporation must first be approved by a majority of our board of directors, and if required by law or our certificate of incorporation, must thereafter be approved by a majority of the outstanding shares entitled to vote on the amendment and a majority of the outstanding shares of each class entitled to vote thereon as a class, except that the amendment of the provisions relating to stockholder action, board composition, and limitation of liability must be approved by not less than two-thirds of the outstanding shares entitled to vote on the amendment, and not less than two-thirds of the outstanding shares of each class entitled to vote thereon as a class. Our bylaws may be amended by the affirmative vote of a majority of the directors then in office, subject to any limitations set forth in the bylaws; and may also be amended by the affirmative vote of a majority of the outstanding shares entitled to vote on the amendment, voting together as a single class, except that the amendment of the provisions relating to notice of stockholder business and nominations and special meetings must be approved by not less than two-thirds of the outstanding shares entitled to vote on the amendment, and not less than two-thirds of the outstanding shares of each class entitled to vote thereon as a class, or, if our board of directors recommends that the stockholders approve the amendment, by the affirmative vote of the majority of the outstanding shares entitled to vote on the amendment, in each case voting together as a single class.

Undesignated preferred stock

Our certificate of incorporation provides for 10,000,000 authorized shares of preferred stock. The existence of authorized but unissued shares of preferred stock may enable our board of directors to discourage an attempt to

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obtain control of us by means of a merger, tender offer, proxy contest or otherwise. For example, if in the due exercise of its fiduciary obligations, our board of directors were to determine that a takeover proposal is not in the best interests of our stockholders, our board of directors could cause shares of preferred stock to be issued without stockholder approval in one or more private offerings or other transactions that might dilute the voting or other rights of the proposed acquirer or insurgent stockholder or stockholder group. In this regard, our certificate of incorporation grants our board of directors broad power to establish the rights and preferences of authorized and unissued shares of preferred stock. The issuance of shares of preferred stock could decrease the amount of earnings and assets available for distribution to holders of shares of common stock. The issuance may also adversely affect the rights and powers, including voting rights, of these holders and may have the effect of delaying, deterring or preventing a change in control of us.

Exclusive Forum

Our bylaws provide that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for any state law claims for: (1) any derivative action or proceeding brought on our behalf; (2) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers and employees to us or our stockholders; (3) any action asserting a claim arising pursuant to the Delaware General Corporation Law or our certificate of incorporation or bylaws (including the interpretation, validity or enforceability thereof); or (4) any action asserting a claim that is governed by the internal affairs doctrine; provided, however, that this provision shall not apply to any causes of action arising under the Securities Act or the Exchange Act. In addition, our bylaws provide that, unless we consent to an alternative forum, the federal district courts of the United States shall be the sole and exclusive forum for resolving any complaint asserting a cause of action under the Securities Act (the Federal Forum Provision). Any person or entity purchasing or otherwise acquiring any interest in our securities shall be deemed to have notice of and consented to these forum provisions. These forum provisions may impose additional costs on stockholders and may limit our stockholders' ability to bring a claim in a forum they find favorable, and the designated courts may reach different judgements or results than other courts. In addition, there is uncertainty as to whether our Federal Forum Provision will be enforced, which may impose additional costs on us and our stockholders.

Section 203 of the Delaware General Corporation Law

We are subject to the provisions of Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a three-year period following the time that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

- before the stockholder became interested, our board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder
- upon consummation of 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, shares owned by persons who are directors and also officers, and employee stock plans, in some instances, but not the outstanding voting stock owned by the interested stockholder; or
- at or after the time the stockholder became interested, the business combination was approved by our board of directors and authorized at an annual or special meeting of the stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

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Section 203 defines a business combination to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, lease, pledge or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- subject to exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; and
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges, or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

Stock exchange listing

Our common stock is listed on The Nasdaq Global Market under the trading symbol “AURA”.

Transfer agent and registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A. The transfer agent and registrar’s address is 150 Royall Street, Canton, Massachusetts 02021, and its telephone number is (800) 962-4284.

DESCRIPTION OF DEBT SECURITIES

We may issue debt securities from time to time, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. While the terms we have summarized below will apply generally to any debt securities that we may offer under this prospectus, we will describe the particular terms of any debt securities that we may offer in more detail in the applicable prospectus supplement. The terms of any debt securities offered under a prospectus supplement may differ from the terms described below. Unless the context requires otherwise, whenever we refer to the indenture, we also are referring to any supplemental indentures that specify the terms of a particular series of debt securities.

We will issue the debt securities under the indenture that we will enter into with the trustee named in the indenture. The indenture will be qualified under the Trust Indenture Act of 1939, as amended, or the Trust Indenture Act. We have filed the form of indenture as an exhibit to the registration statement of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part, or will be incorporated by reference from, reports that we file with the SEC.

The following summary of material provisions of the debt securities and the indenture is subject to, and qualified in its entirety by reference to, all of the provisions of the indenture applicable to a particular series of debt securities. We urge you to read the applicable prospectus supplements and any related free writing prospectuses related to the debt securities that we may offer under this prospectus, as well as the complete indenture that contains the terms of the debt securities.

General

The indenture does not limit the amount of debt securities that we may issue. It provides that we may issue debt securities up to the principal amount that we may authorize and may be in any currency or currency unit that we may designate. Except for the limitations on consolidation, merger and sale of all or substantially all of our assets contained in the indenture, the terms of the indenture do not contain any covenants or other provisions designed to give holders of any debt securities protection against changes in our operations, financial condition or transactions involving us.

We may issue the debt securities issued under the indenture as “discount securities,” which means they may be sold at a discount below their stated principal amount. These debt securities, as well as other debt securities that are not issued at a discount, may be issued with “original issue discount,” or OID, for U.S. federal income tax purposes because of interest payment and other characteristics or terms of the debt securities. Material U.S. federal income tax considerations applicable to debt securities issued with OID will be described in more detail in any applicable prospectus supplement.

We will describe in the applicable prospectus supplement the terms of the series of debt securities being offered, including:

- the title of the series of debt securities;
- any limit upon the aggregate principal amount that may be issued;
- the maturity date or dates;
- the form of the debt securities of the series;
- the applicability of any guarantees;
- whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;
- whether the debt securities rank as senior debt, senior subordinated debt, subordinated debt or any combination thereof, and the terms of any subordination;

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- if the price (expressed as a percentage of the aggregate principal amount thereof) at which such debt securities will be issued is a price other than the principal amount thereof, the portion of the principal amount thereof payable upon declaration of acceleration of the maturity thereof, or if applicable, the portion of the principal amount of such debt securities that is convertible into another security or the method by which any such portion shall be determined;
- the interest rate or rates, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;
- our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- if applicable, the date or dates after which, or the period or periods during which, and the price or prices at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;
- the date or dates, if any, on which, and the price or prices at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;
- the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof;
- any and all terms, if applicable, relating to any auction or remarketing of the debt securities of that series and any security for our obligations with respect to such debt securities and any other terms which may be advisable in connection with the marketing of debt securities of that series;
- whether the debt securities of the series shall be issued in whole or in part in the form of a global security or securities; the terms and conditions, if any, upon which such global security or securities may be exchanged in whole or in part for other individual securities; and the depository for such global security or securities;
- if applicable, the provisions relating to conversion or exchange of any debt securities of the series and the terms and conditions upon which such debt securities will be so convertible or exchangeable, including the conversion or exchange price, as applicable, or how it will be calculated and may be adjusted, any mandatory or optional (at our option or the holders' option) conversion or exchange features, the applicable conversion or exchange period and the manner of settlement for any conversion or exchange;
- if other than the full principal amount thereof, the portion of the principal amount of debt securities of the series which shall be payable upon declaration of acceleration of the maturity thereof;
- additions to or changes in the covenants applicable to the particular debt securities being issued, including, among others, the consolidation, merger or sale covenant;
- additions to or changes in the events of default with respect to the securities and any change in the right of the trustee or the holders to declare the principal, premium, if any, and interest, if any, with respect to such securities to be due and payable;
- additions to or changes in or deletions of the provisions relating to covenant defeasance and legal defeasance;
- additions to or changes in the provisions relating to satisfaction and discharge of the indenture;
- additions to or changes in the provisions relating to the modification of the indenture both with and without the consent of holders of debt securities issued under the indenture;
- the currency of payment of debt securities if other than U.S. dollars and the manner of determining the equivalent amount in U.S. dollars;

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- whether interest will be payable in cash or additional debt securities at our or the holders' option and the terms and conditions upon which the election may be made;
- the terms and conditions, if any, upon which we will pay amounts in addition to the stated interest, premium, if any and principal amounts of the debt securities of the series to any holder that is not a "United States person" for federal tax purposes;
- any restrictions on transfer, sale or assignment of the debt securities of the series; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, any other additions or changes in the provisions of the indenture, and any terms that may be required by us or advisable under applicable laws or regulations.

Conversion or Exchange Rights

We will set forth in the applicable prospectus supplement the terms on which a series of debt securities may be convertible into or exchangeable for our common stock or our other securities. We will include provisions as to settlement upon conversion or exchange and whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of shares of our common stock or our other securities that the holders of the series of debt securities receive would be subject to adjustment.

Consolidation, Merger or Sale

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the indenture will not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of our assets as an entirety or substantially as an entirety. However, any successor to or acquirer of such assets (other than any subsidiary of ours) must assume all of our obligations under the indenture or the debt securities, as appropriate.

Events of Default under the Indenture

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the following are events of default under the indenture with respect to any series of debt securities that we may issue:

- if we fail to pay any installment of interest on any series of debt securities, as and when the same shall become due and payable, and such default continues for a period of 90 days; provided, however, that a valid extension of an interest payment period by us in accordance with the terms of any indenture supplemental thereto shall not constitute a default in the payment of interest for this purpose;
- if we fail to pay the principal of, or premium, if any, on any series of debt securities as and when the same shall become due and payable whether at maturity, upon redemption, by declaration or otherwise, or in any payment required by any sinking or analogous fund established with respect to such series; provided, however, that a valid extension of the maturity of such debt securities in accordance with the terms of any indenture supplemental thereto shall not constitute a default in the payment of principal or premium, if any;
- if we fail to observe or perform any other covenant or agreement contained in the debt securities or the indenture, other than a covenant specifically relating to another series of debt securities, and our failure continues for 90 days after we receive written notice of such failure, requiring the same to be remedied and stating that such is a notice of default thereunder, from the trustee or holders of at least 25% in aggregate principal amount of the outstanding debt securities of the applicable series; and
- if specified events of bankruptcy, insolvency or reorganization occur.

If an event of default with respect to debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the trustee or the holders of at least 25% in aggregate principal

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amount of the outstanding debt securities of that series, by notice to us in writing, and to the trustee if notice is given by such holders, may declare the unpaid principal of, premium, if any, and accrued interest, if any, due and payable immediately. If an event of default specified in the last bullet point above occurs with respect to us, the principal amount of and accrued interest, if any, of each issue of debt securities then outstanding shall be due and payable without any notice or other action on the part of the trustee or any holder.

The holders of a majority in principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the indenture. Any waiver shall cure the default or event of default.

Subject to the terms of the indenture, if an event of default under an indenture shall occur and be continuing, the trustee will be under no obligation to exercise any of its rights or powers under such indenture at the request or direction of any of the holders of the applicable series of debt securities, unless such holders have offered the trustee reasonable indemnity. The holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee, with respect to the debt securities of that series, provided that:

- the direction so given by the holder is not in conflict with any law or the applicable indenture; and
- subject to its duties under the Trust Indenture Act, the trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

A holder of the debt securities of any series will have the right to institute a proceeding under the indenture or to appoint a receiver or trustee, or to seek other remedies only if:

- the holder has given written notice to the trustee of a continuing event of default with respect to that series;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made written request,
- such holders have offered to the trustee indemnity satisfactory to it against the costs, expenses and liabilities to be incurred by the trustee in compliance with the request; and
- the trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions within 90 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities.

We will periodically file statements with the trustee regarding our compliance with specified covenants in the indenture.

Modification of Indenture; Waiver

We and the trustee may change an indenture without the consent of any holders with respect to specific matters:

- to cure any ambiguity, defect or inconsistency in the indenture or in the debt securities of any series;
- to comply with the provisions described above under “Description of Debt Securities—Consolidation, Merger or Sale”;
- to provide for uncertificated debt securities in addition to or in place of certificated debt securities;

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- to add to our covenants, restrictions, conditions or provisions such new covenants, restrictions, conditions or provisions for the benefit of the holders of all or any series of debt securities, to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default or to surrender any right or power conferred upon us in the indenture;
- to add to, delete from or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication and delivery of debt securities, as set forth in the indenture;
- to make any change that does not adversely affect the interests of any holder of debt securities of any series in any material respect;
- to provide for the issuance of and establish the form and terms and conditions of the debt securities of any series as provided above under “Description of Debt Securities—General” to establish the form of any certifications required to be furnished pursuant to the terms of the indenture or any series of debt securities, or to add to the rights of the holders of any series of debt securities;
- to evidence and provide for the acceptance of appointment under any indenture by a successor trustee; or
- to comply with any requirements of the SEC in connection with the qualification of any indenture under the Trust Indenture Act.

In addition, under the indenture, the rights of holders of a series of debt securities may be changed by us and the trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected. However, unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, we and the trustee may make the following changes only with the consent of each holder of any outstanding debt securities affected:

- extending the fixed maturity of any debt securities of any series;
- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption of any series of any debt securities; or
- reducing the percentage of debt securities, the holders of which are required to consent to any amendment, supplement, modification or waiver.

Discharge

Each indenture provides that we can elect to be discharged from our obligations with respect to one or more series of debt securities, except for specified obligations, including obligations to:

- provide for payment;
- register the transfer or exchange of debt securities of the series;
- replace stolen, lost or mutilated debt securities of the series;
- pay principal of and premium and interest on any debt securities of the series;
- maintain paying agencies;
- hold monies for payment in trust;
- recover excess money held by the trustee;
- compensate and indemnify the trustee; and
- appoint any successor trustee.

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In order to exercise our rights to be discharged, we must deposit with the trustee money or government obligations sufficient to pay all the principal of, any premium, if any, and interest on, the debt securities of the series on the dates payments are due.

Form, Exchange and Transfer

We will issue the debt securities of each series only in fully registered form without coupons and, unless we provide otherwise in the applicable prospectus supplement, in denominations of \$1,000 and any integral multiple thereof. The indenture provides that we may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company or another depository named by us and identified in the applicable prospectus supplement with respect to that series. To the extent the debt securities of a series are issued in global form and as book-entry, a description of terms relating to any book-entry securities will be set forth in the applicable prospectus supplement.

At the option of the holder, subject to the terms of the indenture and the limitations applicable to global securities described in the applicable prospectus supplement, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indenture and the limitations applicable to global securities set forth in the applicable prospectus supplement, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, we will impose no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

If we elect to redeem the debt securities of any series, we will not be required to:

- issue, register the transfer of, or exchange any debt securities of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or
- register the transfer of or exchange any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities we are redeeming in part.

Information Concerning the Trustee

The trustee, other than during the occurrence and continuance of an event of default under an indenture, undertakes to perform only those duties as are specifically set forth in the applicable indenture. Upon an event of default under an indenture, the trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs. Subject to this provision, the trustee is under no obligation to exercise any of the powers given it by the indenture at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur.

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Payment and Paying Agents

Unless we otherwise indicate in the applicable prospectus supplement, we will make payment of the interest on any debt securities on any interest payment date to the person in whose name the debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest.

We will pay principal of and any premium and interest on the debt securities of a particular series at the office of the paying agents designated by us, except that unless we otherwise indicate in the applicable prospectus supplement, we will make interest payments by check that we will mail to the holder or by wire transfer to certain holders. Unless we otherwise indicate in the applicable prospectus supplement, we will designate the corporate trust office of the trustee as our sole paying agent for payments with respect to debt securities of each series. We will name in the applicable prospectus supplement any other paying agents that we initially designate for the debt securities of a particular series. We will maintain a paying agent in each place of payment for the debt securities of a particular series.

All money we pay to a paying agent or the trustee for the payment of the principal of or any premium or interest on any debt securities that remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of the debt security thereafter may look only to us for payment thereof.

Governing Law

The indenture and the debt securities will be governed by and construed in accordance with the laws of the state of New York, except to the extent that the Trust Indenture Act is applicable.

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the warrants that we may offer under this prospectus and the related warrant agreements and warrant certificates. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. If we indicate in the prospectus supplement, the terms of any warrants offered under that prospectus supplement may differ from the terms described below. Specific warrant agreements will contain additional important terms and provisions and will be incorporated by reference as an exhibit to the registration statement, which includes this prospectus.

General

We may issue warrants for the purchase of common stock, preferred stock in one or more series. We may issue warrants independently or together with common stock, preferred stock, and the warrants may be attached to or separate from these securities.

We will evidence each series of warrants by warrant certificates that we will issue under a separate warrant agreement. We will enter into the warrant agreement with a warrant agent. We will indicate the name and address of the warrant agent in the applicable prospectus supplement relating to a particular series of warrants.

We will describe in the applicable prospectus supplement the terms of the series of warrants, including:

- the offering price and aggregate number of warrants offered;
- the currency for which the warrants may be purchased;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- if applicable, the date on and after which the warrants and the related securities will be separately transferable;
- in the case of warrants to purchase common stock or preferred stock, the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- in the case of warrants to purchase debt securities, the principal amount of debt securities purchasable upon exercise of one warrant and the price at, and currency in which, this principal amount of debt securities may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreement and the warrants;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- the periods during which, and places at which, the warrants are exercisable;
- the manner of exercise;
- the dates on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreement and warrants may be modified;
- federal income tax consequences of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

DESCRIPTION OF UNITS

We may issue units comprised of shares of common stock, shares of preferred stock and warrants in any combination. We may issue units in such amounts and in as many distinct series as we wish. This section outlines certain provisions of the units that we may issue. If we issue units, they will be issued under one or more unit agreements to be entered into between us and a bank or other financial institution, as unit agent. The information described in this section may not be complete in all respects and is qualified entirely by reference to the unit agreement with respect to the units of any particular series. The specific terms of any series of units offered will be described in the applicable prospectus supplement. If so described in a particular supplement, the specific terms of any series of units may differ from the general description of terms presented below. We urge you to read any prospectus supplement related to any series of units we may offer, as well as the complete unit agreement and unit certificate that contain the terms of the units. If we issue units, forms of unit agreements and unit certificates relating to such units will be incorporated by reference as exhibits to the registration statement, which includes this prospectus.

Each unit that we may issue will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date. The applicable prospectus supplement may describe:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement;
- the price or prices at which such units will be issued;
- the applicable United States federal income tax considerations relating to the units;
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and
- any other terms of the units and of the securities comprising the units.

The provisions described in this section, as well as those described under “Description of Capital Stock,” and “Description of Warrants” will apply to the securities included in each unit, to the extent relevant and as may be updated in any prospectus supplements.

Issuance in Series

We may issue units in such amounts and in as many distinct series as we wish. This section summarizes terms of the units that apply generally to all series. Most of the financial and other specific terms of a particular series of units will be described in the applicable prospectus supplement.

Unit Agreements

We will issue the units under one or more unit agreements to be entered into between us and a bank or other financial institution, as unit agent. We may add, replace or terminate unit agents from time to time. We will identify the unit agreement under which each series of units will be issued and the unit agent under that agreement in the applicable prospectus supplement.

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The following provisions will generally apply to all unit agreements unless otherwise stated in the applicable prospectus supplement:

Modification without Consent

We and the applicable unit agent may amend any unit or unit agreement without the consent of any holder:

- to cure any ambiguity; any provisions of the governing unit agreement that differ from those described below;
- to correct or supplement any defective or inconsistent provision; or
- to make any other change that we believe is necessary or desirable and will not adversely affect the interests of the affected holders in any material respect.

We do not need any approval to make changes that affect only units to be issued after the changes take effect. We may also make changes that do not adversely affect a particular unit in any material respect, even if they adversely affect other units in a material respect. In those cases, we do not need to obtain the approval of the holder of the unaffected unit; we need only obtain any required approvals from the holders of the affected units.

Modification with Consent

We may not amend any particular unit or a unit agreement with respect to any particular unit unless we obtain the consent of the holder of that unit, if the amendment would:

- impair any right of the holder to exercise or enforce any right under a security included in the unit if the terms of that security require the consent of the holder to any changes that would impair the exercise or enforcement of that right; or
- reduce the percentage of outstanding units or any series or class the consent of whose holders is required to amend that series or class, or the applicable unit agreement with respect to that series or class, as described below.

Any other change to a particular unit agreement and the units issued under that agreement would require the following approval:

- If the change affects only the units of a particular series issued under that agreement, the change must be approved by the holders of a majority of the outstanding units of that series; or
- If the change affects the units of more than one series issued under that agreement, it must be approved by the holders of a majority of all outstanding units of all series affected by the change, with the units of all the affected series voting together as one class for this purpose.

These provisions regarding changes with majority approval also apply to changes affecting any securities issued under a unit agreement, as the governing document.

In each case, the required approval must be given by written consent.

Unit Agreements Will Not Be Qualified under Trust Indenture Act

No unit agreement will be qualified as an indenture, and no unit agent will be required to qualify as a trustee, under the Trust Indenture Act. Therefore, holders of units issued under unit agreements will not have the protections of the Trust Indenture Act with respect to their units.

Mergers and Similar Transactions Permitted; No Restrictive Covenants or Events of Default

The unit agreements will not restrict our ability to merge or consolidate with, or sell our assets to, another corporation or other entity or to engage in any other transactions. If at any time we merge or consolidate with, or

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sell our assets substantially as an entirety to, another corporation or other entity, the successor entity will succeed to and assume our obligations under the unit agreements. We will then be relieved of any further obligation under these agreements.

The unit agreements will not include any restrictions on our ability to put liens on our assets, nor will they restrict our ability to sell our assets. The unit agreements also will not provide for any events of default or remedies upon the occurrence of any events of default.

Governing Law

The unit agreements and the units will be governed by New York law.

Form, Exchange and Transfer

We will issue each unit in global—i.e., book-entry—form only. Units in book-entry form will be represented by a global security registered in the name of a depository, which will be the holder of all the units represented by the global security. Those who own beneficial interests in a unit will do so through participants in the depository's system, and the rights of these indirect owners will be governed solely by the applicable procedures of the depository and its participants. We will describe book-entry securities, and other terms regarding the issuance and registration of the units in the applicable prospectus supplement.

Each unit and all securities comprising the unit will be issued in the same form.

If we issue any units in registered, non-global form, the following will apply to them.

The units will be issued in the denominations stated in the applicable prospectus supplement. Holders may exchange their units for units of smaller denominations or combined into fewer units of larger denominations, as long as the total amount is not changed.

- Holders may exchange or transfer their units at the office of the unit agent. Holders may also replace lost, stolen, destroyed or mutilated units at that office. We may appoint another entity to perform these functions or perform them ourselves.
- Holders will not be required to pay a service charge to transfer or exchange their units, but they may be required to pay for any tax or other governmental charge associated with the transfer or exchange. The transfer or exchange, and any replacement, will be made only if our transfer agent is satisfied with the holder's proof of legal ownership. The transfer agent may also require an indemnity before replacing any units.
- If we have the right to redeem, accelerate or settle any units before their maturity, and we exercise our right as to less than all those units or other securities, we may block the exchange or transfer of those units during the period beginning 15 days before the day we mail the notice of exercise and ending on the day of that mailing, in order to freeze the list of holders to prepare the mailing. We may also refuse to register transfers of or exchange any unit selected for early settlement, except that we will continue to permit transfers and exchanges of the unsettled portion of any unit being partially settled. We may also block the transfer or exchange of any unit in this manner if the unit includes securities that are or may be selected for early settlement.

Only the depository will be entitled to transfer or exchange a unit in global form, since it will be the sole holder of the unit.

Payments and Notices

In making payments and giving notices with respect to our units, we will follow the procedures as described in the applicable prospectus supplement.

PLAN OF DISTRIBUTION

We may sell the securities offered through this prospectus and any accompanying prospectus supplement, if required, in any of the following ways: (i) to or through underwriters or dealers, (ii) directly to purchasers, including our affiliates, (iii) through agents, (iv) in an “at the market offering,” within the meaning of Rule 415(a)(4) of the Securities Act or (v) through a combination of any of these methods or any other method permitted by law. The securities may be distributed at a fixed price or prices, which may be changed, market prices prevailing at the time of sale, prices related to the prevailing market prices, or negotiated prices, either:

- on or through the facilities of The Nasdaq Global Market or any other securities exchange or quotation or trading service on which such securities may be listed, quoted or traded at the time of sale; and/or
- to or through a market maker otherwise than on The Nasdaq Global Market or such other securities exchanges or quotation or trading services.

In addition, we may issue the securities as a dividend or distribution or in a subscription rights offering to our existing security holders.

We may directly solicit offers to purchase securities, or agents may be designated to solicit such offers. In the prospectus supplement relating to such offering, we will name any agent that could be viewed as an underwriter under the Securities Act and describe any commissions that we must pay to any such agent. Any such agent will be acting on a best efforts basis for the period of its appointment or, if indicated in the applicable prospectus supplement, on a firm commitment basis. This prospectus may be used in connection with any offering of our securities through any of these methods or other methods described in the applicable prospectus supplement.

Each prospectus supplement will describe the method of distribution of the securities and any applicable restrictions.

The prospectus supplement with respect to the securities of a particular series will describe the terms of the offering of the securities, including the following:

- the name of the agent or any underwriters;
- the public offering or purchase price;
- any discounts and commissions to be allowed or paid to the agent or underwriters;
- all other items constituting underwriting compensation;
- any discounts and commissions to be allowed or paid to dealers; and
- any exchanges on which the securities will be listed.

If any underwriters or agents are used in the sale of the securities in respect of which this prospectus is delivered, we will enter into an underwriting agreement, sales agreement or other agreement with them at the time of sale to them, and we will set forth in the prospectus supplement relating to such offering the names of the underwriters or agents and the terms of the related agreement with them.

In connection with the offering of securities, we may grant to the underwriters an option to purchase additional securities with an additional underwriting commission, as may be set forth in the accompanying prospectus supplement. If we grant any such option, the terms of such option will be set forth in the prospectus supplement for such securities.

If a dealer is used in the sale of the securities in respect of which the prospectus is delivered, we will sell such securities to the dealer, as principal. The dealer, who may be deemed to be an “underwriter” as that term is defined in the Securities Act, may then resell such securities to the public at varying prices to be determined by such dealer at the time of resale.

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If we offer securities in a subscription rights offering to our existing security holders, we may enter into a standby underwriting agreement with dealers, acting as standby underwriters. We may pay the standby underwriters a commitment fee for the securities they commit to purchase on a standby basis. If we do not enter into a standby underwriting arrangement, we may retain a dealer-manager to manage a subscription rights offering for us.

Agents, underwriters, dealers and other persons may be entitled under agreements which they may enter into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, and may be customers of, engage in transactions with or perform services for us in the ordinary course of business.

If so indicated in the applicable prospectus supplement, we will authorize underwriters or other persons acting as our agents to solicit offers by certain institutions to purchase securities from us pursuant to delayed delivery contracts providing for payment and delivery on the date stated in the prospectus supplement. Each contract will be for an amount not less than, and the aggregate amount of securities sold pursuant to such contracts shall not be less nor more than, the respective amounts stated in the prospectus supplement. Institutions with whom the contracts, when authorized, may be made include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and other institutions, but shall in all cases be subject to our approval. Delayed delivery contracts will not be subject to any conditions except that:

- the purchase by an institution of the securities covered under that contract shall not at the time of delivery be prohibited under the laws of the jurisdiction to which that institution is subject; and
- if the securities are also being sold to underwriters acting as principals for their own account, the underwriters shall have purchased such securities not sold for delayed delivery. The underwriters and other persons acting as our agents will not have any responsibility in respect of the validity or performance of delayed delivery contracts.

Offered securities may also be offered and sold, if so indicated in the prospectus supplement, in connection with a remarketing upon their purchase, in accordance with a redemption or repayment pursuant to their terms, or otherwise, by one or more remarketing firms, acting as principals for their own accounts or as agents for us. Any remarketing firm will be identified and the terms of its agreement, if any, with us and its compensation will be described in the applicable prospectus supplement. Remarketing firms may be deemed to be underwriters in connection with their remarketing of offered securities.

Certain agents, underwriters and dealers, and their associates and affiliates, may be customers of, have borrowing relationships with, engage in other transactions with, or perform services, including investment banking services, for us or one or more of our respective affiliates in the ordinary course of business.

In order to facilitate the offering of the securities, any underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the securities or any other securities the prices of which may be used to determine payments on such securities. Specifically, any underwriters may overallocate in connection with the offering, creating a short position for their own accounts. In addition, to cover overallocations or to stabilize the price of the securities or of any such other securities, the underwriters may bid for, and purchase, the securities or any such other securities in the open market. Finally, in any offering of the securities through a syndicate of underwriters, the underwriting syndicate may reclaim selling concessions allowed to an underwriter or a dealer for distributing the securities in the offering if the syndicate repurchases previously distributed securities in transactions to cover syndicate short positions, in stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of the securities above independent market levels. Any such underwriters are not required to engage in these activities and may end any of these activities at any time.

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

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prospectus supplement so indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in 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 may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and, if not identified in this prospectus, will be named in the applicable prospectus supplement (or a post-effective amendment). 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 and an applicable prospectus supplement. Such 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.

Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in two business days, unless the parties to any such trade expressly agree otherwise. Pursuant to recent amendments to Rule 15c6-1 of the Exchange Act, after May 28, 2024, trades may settle on the first business day that is also a trading day. The applicable prospectus supplement may provide that the original issue date for your securities may be more than two scheduled business days 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 two scheduled business days after the trade date for your securities, to make alternative settlement arrangements to prevent a failed settlement.

The securities may be new issues of securities and may have no established trading market. The securities may or may not be listed on a national securities exchange. We can make no assurance as to the liquidity of or the existence of trading markets for any of the securities.

The specific terms of any lock-up provisions in respect of any given offering will be described in the applicable prospectus supplement.

Any underwriters, dealers and agents may engage in transactions with us, or perform services for us, in the ordinary course of business for which they receive compensation.

The anticipated date of delivery of offered securities will be set forth in the applicable prospectus supplement relating to each offer.

LEGAL MATTERS

Unless the applicable prospectus supplement indicates otherwise, the validity of the securities in respect of which this prospectus is being delivered will be passed upon by Goodwin Procter LLP, Boston, Massachusetts. Additional legal matters may be passed upon for us or any underwriters, dealers or agents, by counsel that we will name in the applicable prospectus supplement.

EXPERTS

The consolidated financial statements of Aura Biosciences, Inc. incorporated by reference in Aura Biosciences, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2023, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon incorporated by reference therein, and incorporated herein by reference. Such financial statements are, and audited financial statements to be included in subsequently filed documents will be, incorporated herein in reliance upon the reports of Ernst & Young LLP pertaining to such financial statements (to the extent covered by consents filed with the Securities and Exchange Commission) given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at www.sec.gov and on our investor website at ir.aurabiosciences.com. Our website is not a part of this prospectus and is not incorporated by reference in this prospectus.

We have the authority to designate and issue more than one class or series of stock having various preferences, conversion and other rights, voting powers, restrictions, limitations as to dividends, qualifications, and terms and conditions of redemption. See "Description of Capital Stock." We will furnish a full statement of the relative rights and preferences of each class or series of our stock which has been so designated and any restrictions on the ownership or transfer of our stock to any stockholder upon request and without charge. Written requests for such copies should be directed to Aura Biosciences, Inc., 80 Guest Street, Boston, MA 02135, Attention: Corporate Secretary.

This prospectus is part of a registration statement on Form S-3 we filed with the SEC. This prospectus omits some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits in the registration statement for further information about us and our consolidated subsidiaries and the securities we are offering. Statements in this prospectus concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings. You should review the complete document to evaluate these statements.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus is considered to be part of this prospectus. Because we are incorporating by reference future filings with the SEC, this prospectus is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus or in any document previously incorporated by reference have been modified or superseded. This prospectus incorporates by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (in each case, other than those documents or the portions of those documents not deemed to be filed) between the date of the initial registration statement and the effectiveness of the registration statement and following the effectiveness of the registration statement until the offering of the securities under the registration statement is terminated or completed:

- Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2023, filed with the SEC on March 27, 2024; and
- The description of our common stock contained in our Registration Statement on [Form 8-A](#) filed on October 26, 2021, and as set forth by the description of the Registrant's common stock set forth in [Exhibit 4.1](#) to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on March 27, 2024, including any other amendments or reports filed for the purpose of updating such description.

In addition, all reports and other documents filed by us pursuant to the Exchange Act after the date of the initial registration statement and prior to effectiveness of the registration statement shall be deemed to be incorporated by reference into this prospectus.

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address or telephone number:

Aura Biosciences, Inc.
80 Guest Street
Boston, MA 02135
Attn: Investor Relations
(617) 500-8864



**39,591,000 Shares of Common Stock
Pre-Funded Warrants to Purchase up to 3,800,000 Shares of Common Stock**

Prospectus Supplement

Joint Bookrunning Managers

Leerink Partners

TD Cowen

Evercore ISI

Bookrunning Manager

LifeSci Capital

Co-Manager

Citizens Capital Markets

May 4, 2026
