
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-8
REGISTRATION STATEMENT
Under
The Securities Act of 1933

AURA BIOSCIENCES, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

32-0271970
(I.R.S. Employer
Identification No.)

80 Guest Street
Boston, MA 02135
(617) 500-8864
(Address, including zip code and telephone number, including area code, of Registrant's principal executive offices)

Restricted Stock Unit Award Agreements (Inducement Awards)
Non-Qualified Stock Option Agreements (Inducement Awards)
(Full title of the plans)

Natalie Holles
Chief Executive Officer and President
Aura Biosciences, Inc.
80 Guest Street
Boston, MA 02135
(617) 500-8864
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

**Effie Toshav, Esq.
Ryan Mitteness, Esq.
Chelsea Anderson, Esq.
Fenwick & West LLP
401 Union Street
Seattle, Washington 98101
(206) 389-4510**

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ☐

EXPLANATORY NOTE

This Registration Statement on Form S-8 registers shares of common stock, \$0.00001 par value per share (the “Common Stock”), of Aura Biosciences, Inc. (the “Registrant”) issuable pursuant to the inducement awards, as described below. As a material inducement to three newly hired employees to accept employment with the Registrant, the Registrant granted the following equity awards to such individuals (the “Inducement Awards”) on the date detailed below:

- Restricted stock unit awards with respect to an aggregate of 343,009 shares of Common Stock granted to three newly-hired employees on September 1, 2026; and
- Stock options to purchase an aggregate of 676,991 shares of Common Stock granted to three newly-hired employees on September 1, 2026.

Each Inducement Award was approved by the Registrant’s Board of Directors in compliance with and in reliance on Nasdaq Listing Rule 5635(c)(4). The Inducement Awards were granted outside of the Registrant’s Amended and Restated 2021 Stock Option and Incentive Plan, and its predecessor plans.

PART I INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The information specified in Part I of Form S-8 is omitted from this filing in accordance with the provisions of Rule 428 under the Securities Act of 1933, as amended (the “Securities Act”) and the introductory note to Part I of the Form S-8 instructions. The documents containing the information specified in Part I will be delivered to persons to whom the Inducement Awards have been granted as required by Rule 428(b)(1) under the Securities Act.

Part II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents, which have been filed by the Registrant with the Securities and Exchange Commission (the “Commission”), are incorporated by reference in, and shall be deemed to be a part of, this Registration Statement:

(a) The Registrant’s Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2025, filed with the Commission on March 30, 2026;

(b) The information specifically incorporated by reference into the Annual Report on Form 10-K for the year ended December 31, 2025 from the [definitive proxy statement on Schedule 14a](#) (other than information furnished rather than filed) filed with the Commission on April 20, 2026;

(c) All other reports filed pursuant to Section 13(a) or 15(d) of the Exchange Act since the end of the fiscal year covered by the Registrant’s Annual Report on Form 10-K referred to in (a) above;

(d) The description of the Registrant’s Common Stock contained in the Registrant’s Registration Statement on [Form 8-A](#) filed with the Commission on October 26, 2021, including any other amendments or reports filed for the purpose of updating such description, including [Exhibit 4.1](#) to the Registrant’s Registration Statement on [Form S-3](#) filed on August 11, 2026; and

(e) All documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, as amended, prior to the filing of a post-effective amendment to this Registration Statement, which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference into this Registration Statement; provided, however, that documents, reports and definitive proxy or information statements, or portions thereof, which are furnished and not filed in accordance with the rules of the Commission shall not be deemed incorporated by reference into this Registration Statement.

Any statement contained herein or in a document, all or a portion of which is incorporated or deemed to be incorporated by reference herein, shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or amended, to constitute a part of this Registration Statement.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law, or DGCL, authorizes a corporation to indemnify its directors and officers against liabilities arising out of actions, suits and proceedings to which they are made or threatened to be made a party by reason of the fact that they have served or are currently serving as a director or officer to a corporation. The indemnity may cover expenses (including attorneys' fees) judgments, fines and amounts paid in settlement actually and reasonably incurred by the director or officer in connection with any such action, suit or proceeding. Section 145 permits corporations to pay expenses (including attorneys' fees) incurred by directors and officers in advance of the final disposition of such action, suit or proceeding. In addition, Section 145 provides that a corporation has the power to purchase and maintain insurance on behalf of its directors and officers against any liability asserted against them and incurred by them in their capacity as a director or officer, or arising out of their status as such, whether or not the corporation would have the power to indemnify the director or officer against such liability under Section 145.

The Registrant's certificate of incorporation and bylaws limit or eliminate the personal liability of the Registrant's directors and officers to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended. Consequently, a director or officer will not be personally liable to the Registrant or its stockholders for monetary damages or breach of fiduciary duty as a director or officer, except for liability for:

- any breach of the director's or officer's duty of loyalty to the Registrant or its stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- for a director, any unlawful payments related to dividends or unlawful stock purchases, redemptions or other distributions;
- any transaction from which the director or officer derived an improper personal benefit; or
- for an officer, arising from any claim brought by or in right of the Company.

These limitations of liability do not alter director liability under the federal securities laws and do not affect the availability of equitable remedies such as an injunction or rescission.

In addition, the Registrant's bylaws provide that:

- the Registrant will indemnify its directors, officers and, in the discretion of the Registrant's board of directors, certain employees to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended; and
- the Registrant will advance reasonable expenses, including attorneys' fees, to its directors and, in the discretion of the Registrant's board of directors, to its officers and certain employees, in connection with legal proceedings relating to their service for or on behalf of the Registrant, subject to limited exceptions.

The Registrant has entered into indemnification agreements with each of its directors and executive officers. These agreements provide that the Registrant will indemnify each of its directors, its executive officers and, at times, their affiliates to the fullest extent permitted by Delaware law. The Registrant will advance expenses, including attorneys' fees (but excluding judgments, fines and settlement amounts), to each indemnified director, executive officer or affiliate in connection with any proceeding in which indemnification is available and the Registrant will indemnify its directors and officers for any action or proceeding arising out of that person's services as a director or officer brought on behalf of the Registrant or in furtherance of the Registrant's rights. Additionally, certain of the Registrant's directors or officers may have certain rights to indemnification, advancement of expenses or insurance provided by their affiliates or other third parties, which indemnification relates to and might apply to the same proceedings arising out of such director's or officer's services as a director referenced herein. Nonetheless, the Registrant has agreed in the indemnification agreements that the Registrant's obligations to those same directors or officers are primary and any obligation of such affiliates or other third parties to advance expenses or to provide indemnification for the expenses or liabilities incurred by those directors are secondary.

The Registrant also maintains general liability insurance which covers certain liabilities of its directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers, including liabilities under the Securities Act.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

EXHIBIT INDEX

Exhibit No.	Description
4.1	<u>Specimen Common Stock Certificate of the Registrant (Incorporated by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form S-1, as amended (File No. 333-260156), filed with the Securities and Exchange Commission on October 25, 2021).</u>
4.2	<u>Tenth Amended and Restated Certificate of Incorporation of the Registrant, as currently in effect, as amended by the Certificate of Amendment, dated June 20, 2024 and the Certificate of Amendment, dated August 5, 2026 (Incorporated by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-40971) filed with the Securities and Exchange Commission on August 11, 2026).</u>
4.3	<u>Amended and Restated Bylaws of the Registrant, as currently in effect (Incorporated by reference to Exhibit 3.2 to the Registrant's Annual Report on Form 10-K (File No. 001-40971) filed with the Securities and Exchange Commission on March 23, 2022).</u>
4.4	<u>Fifth Amended and Restated Investors' Rights Agreement (Incorporated by reference to Exhibit 4.2 to the Registration Statement on Form S-1 (File No. 333-260156) filed with the Securities and Exchange Commission on October 8, 2021).</u>
4.5	<u>Form of Pre-Funded Warrant to Purchase Common Stock (Incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K (File No. 001-40971) filed with the Securities and Exchange Commission on May 16, 2025).</u>
4.6	<u>Form of Common Stock Warrant to Purchase Common Stock (Incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K (File No. 001-40971) filed with the Securities and Exchange Commission on May 16, 2025).</u>
4.7	<u>Form of Pre-Funded Warrant to Purchase Common Stock (Incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K (File No. 001-40971) filed with the Securities and Exchange Commission on May 5, 2026).</u>
5.1*	<u>Opinion of Fenwick & West LLP.</u>
23.1*	<u>Consent of Ernst & Young, Independent Registered Public Accounting Firm.</u>
23.2*	<u>Consent of Fenwick & West LLP (included in Exhibit 5.1).</u>
24.1*	<u>Power of Attorney (included on signature page).</u>
99.1#	<u>Form of Restricted Stock Unit Award Agreement (Inducement Award) (Incorporated by reference to Exhibit 99.1 to the Registrant's Registration Statement on Form S-8 (File No. 296029) filed with the Securities and Exchange Commission on May 19, 2026).</u>
99.2#	<u>Form of Non-Qualified Stock Option Agreement (Inducement Award) (Incorporated by reference to Exhibit 99.2 to the Registrant's Registration Statement on Form S-8 (File No. 296029) filed with the Securities and Exchange Commission on May 19, 2026).</u>
107*	<u>Filing Fee Table.</u>

* Filed herewith.

Denotes management contract or compensatory plan or arrangement.

Item 9. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) to include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) to reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement; and

(iii) to include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) of this section do not apply if the registration statement is on Form S-8, and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a new Registration Statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Boston, Commonwealth of Massachusetts, on this 1st day of September, 2026.

AURA BIOSCIENCES, INC.

By: /s/ Natalie Holles
Name: Natalie Holles
Title: Chief Executive Officer and President

POWER OF ATTORNEY AND SIGNATURES

KNOW ALL BY THESE PRESENT, that each individual whose signature appears below hereby constitutes and appoints each of Natalie Holles and Amy Elazzouzi as such person's true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for such person in such person's name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement on Form S-8, and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that any said attorney-in-fact and agent, or any substitute or substitutes of any of them, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following person in the capacities and on the date indicated.

Name	Title	Date
<u>/s/ Natalie Holles</u> Natalie Holles	Chief Executive Officer, President and Director <i>Principal Executive Officer</i>	September 1, 2026
<u>/s/ Anthony Gibney</u> Anthony Gibney	Chief Financial and Business Officer <i>Principal Financial Officer</i>	September 1, 2026
<u>/s/ Amy Elazzouzi</u> Amy Elazzouzi	Senior Vice President, Finance <i>Principal Accounting Officer</i>	September 1, 2026
<u>/s/ Teresa Bitetti</u> Teresa Bitetti	Director	September 1, 2026
<u>/s/ David Johnson</u> David Johnson	Director	September 1, 2026
<u>/s/ Giovanni Mariggi</u> Giovanni Mariggi, Ph.D.	Director	September 1, 2026
<u>/s/ Antony Mattessich</u> Antony Mattessich	Director	September 1, 2026

/s/ Sapna Srivastava Director
Sapna Srivastava, Ph.D.

September 1, 2026

/s/ Jeremy Bender Director
Jeremy Bender, Ph.D., M.B.A.

September 1, 2026

September 1, 2026

Aura Biosciences, Inc.
80 Guest Street, Boston, MA 02135

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

As counsel to Aura Biosciences, Inc., a Delaware corporation (the “**Company**”), we have examined the Registration Statement on Form S-8 (the “**Registration Statement**”) to be filed by the Company with the Securities and Exchange Commission (the “**Commission**”) on or about September 1, 2026 in connection with the registration under the Securities Act of 1933, as amended (the “**Securities Act**”), of an aggregate of 1,020,000 shares (the “**Shares**”) of the Company’s Common Stock, \$0.00001 par value per share (the “**Common Stock**”), that consists of shares issuable pursuant to the Restricted Stock Unit Award Agreements (Inducement Award) and the Non-Qualified Stock Option Agreements (Inducement Award) (collectively, the “**Award Agreements**”).

As to matters of fact relevant to the opinions rendered herein, we have examined such documents, certificates and other instruments which we have deemed necessary or advisable, including a certificate addressed to us and dated the date hereof executed by the Company. We have not undertaken any independent investigation to verify the accuracy of any such information, representations or warranties or to determine the existence or absence of any fact, and no inference as to our knowledge of the existence or absence of any fact should be drawn from our representation of the Company or the rendering of the opinion set forth below. We have not considered parol evidence in connection with any of the agreements or instruments reviewed by us in connection with this letter.

In our examination of documents for purposes of this letter, we have assumed, and express no opinion as to, the genuineness and authenticity of all signatures on original documents, the authenticity and completeness of all documents submitted to us as originals, that each document is what it purports to be, the conformity to originals of all documents submitted to us as copies or facsimile copies, the absence of any termination, modification or waiver of or amendment to any document reviewed by us (other than as has been disclosed to us), the legal competence or capacity of all persons or entities (other than the Company) executing the same and (other than the Company) the due authorization, execution and delivery of all documents by each party thereto. We have also assumed the conformity of the documents filed with the Commission via the Electronic Data Gathering, Analysis and Retrieval System (“**EDGAR**”), except for required EDGAR formatting changes, to physical copies submitted for our examination.

The opinions in this letter are limited to the existing General Corporation Law of the State of Delaware now in effect. We express no opinion with respect to any other laws.

Based upon, and subject to, the foregoing, it is our opinion that the Shares, when issued and sold by the Company in accordance with the terms (including, without limitation, payment and authorization provisions) of the applicable Award Agreements, against the Company's receipt of payment therefor (in an amount and type of consideration not less than the par value per Share), and duly registered on the books of the transfer agent and registrar for the Shares in the name or on behalf of the holders thereof, will be validly issued, fully paid and non-assessable.

We consent to the use of this opinion as an exhibit to the Registration Statement and further consent to all references to us, if any, in the Registration Statement, the prospectuses constituting a part thereof and any amendments thereto. We do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission thereunder.

This opinion is intended solely for your use in connection with the issuance and sale of the Shares subject to the Registration Statement and is not to be relied upon for any other purpose. In providing this letter, we are opining only as to the specific legal issues expressly set forth above, and no opinion shall be inferred as to any other matter or matters. This opinion is rendered on, and speaks only as of, the date of this letter first written above, and does not address any potential change in facts or law that may occur after the date of this opinion letter. We assume no obligation to advise you of any fact, circumstance, event or change in the law or the facts that may hereafter be brought to our attention, whether or not such occurrence would affect or modify any of the opinions expressed herein.

Very truly yours,

/s/ Fenwick & West LLP

FENWICK & WEST LLP

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the Restricted Stock Unit Award Agreements and Non-Qualified Stock Option Agreements (Inducement Awards) of Aura Biosciences, Inc. of our report dated March 30, 2026, with respect to the consolidated financial statements of Aura Biosciences, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2025 filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Boston, Massachusetts
September 1, 2026

CALCULATION OF REGISTRATION FEE

Form S-8
(Form Type)

Aura Biosciences, Inc.
(Exact name of registrant as specified in its charter)

Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered(1)	Proposed Maximum Offering Price Per Share	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Non-Qualified Stock Option Agreement (Inducement Award) Common Stock, \$0.00001 par value per share	Other	676,991 (2)	\$7.69 (3)	\$5,206,061.00	\$0.00013810	\$718.96
Equity	Restricted Stock Unit Award Agreement (Inducement Award) Common Stock, \$0.00001 par value per share	Other	343,009 (4)	\$7.69 (3)	\$2,637,740.00	\$0.00013810	\$364.28
Total Offering Amounts					\$7,843,801.00		\$1,083.24
Total Fees Previously Paid							—
Total Fee Offsets							—
Net Fee Due							\$1,083.24

- (1) Pursuant to Rule 416 under the Securities Act of 1933, as amended (the “Securities Act”), this Registration Statement shall also cover any additional shares of the Registrant’s common stock, \$0.00001 par value per share (the “Common Stock”), which may become issuable by reason of any stock dividend, stock split, recapitalization or any other similar transaction effected without the receipt of consideration which results in an increase in the number of the Registrant’s outstanding shares of Common Stock.
- (2) Represents shares of the Registrant's Common Stock issuable upon the exercise of non-qualified stock options granted to three newly-hired employees pursuant to the Form of Non-Qualified Stock Option Agreement (Inducement Award) as an inducement material to entry into employment with the Registrant under Nasdaq Listing Rule 5635(c)(4).

- (3) Estimated solely for purposes of calculating the registration fee pursuant to Rules 457(c) and (h) of the Securities Act, and based on the average of the high and low sale prices of the Common Stock on the Nasdaq Global Market on August 26, 2026.
 - (4) Represents shares of the Registrant's Common Stock issuable upon the settlement of restricted stock units granted to three newly-hired employees pursuant to the Form of Restricted Stock Unit Award Agreement (Inducement Award), as an inducement material to entry into employment with the Registrant under Nasdaq Listing Rule 5635(c)(4).
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