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.)

85 Bolton Street
Cambridge, MA 02140
(617) 500-8864
(Address, including zip code and telephone number, including area code, of Registrant's principal executive offices)

Aura Biosciences, Inc. 2021 Stock Option and Incentive Plan Aura Biosciences, Inc. 2021 Employee Stock Purchase Plan (Full title of the plans)

Elisabet de los Pinos, Ph.D.
Chief Executive Officer
Aura Biosciences, Inc.
85 Bolton Street
Cambridge, MA 02140
(617) 500-8864

 $(Name, address, including \ zip\ code, and\ telephone\ number, including\ area\ code, of\ agent\ for\ service)$

Copies to:

Stuart Cable, Esq.
Danielle Lauzon, Esq.
Stephanie A. Richards, Esq.
Goodwin Procter LLP
100 Northern Avenue
Boston, Massachusetts 02210
(617) 570-1000

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

Smaller reporting company

Emerging growth company

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

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. \Box

EXPLANATORY NOTE

This registration statement on Form S-8 relating to the 2021 Stock Option and Incentive Plan (the "2021 Plan") and the 2021 Employee Stock Purchase Plan ("the "2021 ESPP") (together, the "Plans") of Aura Biosciences, Inc. is being filed for the purpose of registering additional securities of the same class as other securities for which a registration statement on Form S-8 relating to the Plans has previously been filed and is effective. Accordingly, pursuant to General Instruction E, the information contained in the registrant's registration statement on Form S-8 (File No. 333-260589) is hereby incorporated by reference and made a part of this registration statement, except as presented below in Part II, Item 8. Exhibits.

Part II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 8. Exhibits.

EXHIBIT INDEX

Exhibit No.	Description						
4.1	Specimen Common Stock Certificate of the Registrant (Incorporated by reference to Exhibit 4.1 to the Registration Statement on Form S-1/A filed on October 25, 2021, (File No. 333-260156)).						
4.2	Tenth Amended and Restated Certificate of Incorporation (Incorporated by reference to Exhibit 3.1 to the Annual Report on Form 10-K filed on March 23, 2022, (File No. 001-40971)).						
4.3	Amended and Restated Bylaws (Incorporated by reference to Exhibit 3.2 to the Annual Report on Form 10-K filed on March 23, 2022, (File No. 001-40971)).						
4.4	Fifth Amended and Restated Investors' Rights Agreement (Incorporated by reference to Exhibit 4.2 to the Registration Statement on Form S-1 filed on October 8, 2021, (File No. 333-260156))						
5.1*	Opinion of Goodwin Procter LLP.						
23.1*	Consent of Ernst & Young, Independent Registered Public Accounting Firm.						
23.2*	Consent of Goodwin Procter LLP (included in Exhibit 5.1).						
24.1*	Power of Attorney (included on signature page).						
99.1	2021 Stock Option and Incentive Plan, and form of award agreements thereunder (Incorporated by reference to Exhibit 10.1 to the Registrant's Registration Statement on Form S-8, as amended (File No. 333-260589)).						
99.2	2021 Employee Stock Purchase Plan (Incorporated by reference to Exhibit 10.4 to the Registrant's Registration Statement on Form S-1, as amended (File No. 333-260156)).						
107*	Filing Fee Table						

 ^{*} Filed herewith.

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 Cambridge, State of Massachusetts, on this 23rd day of March, 2022.

AURA BIOSCIENCES, INC.

By: /s/ Elisabet de los Pinos

Name: Elisabet de los Pinos, Ph.D.

Title: President and Chief Executive Officer

POWER OF ATTORNEY AND SIGNATURES

KNOW ALL BY THESE PRESENT, that each individual whose signature appears below hereby constitutes and appoints each of Elisabet de los Pinos, Ph.D. and Julie Feder, 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
/s/ Elisabet de los Pinos Elisabet de los Pinos, Ph.D.	President, Chief Executive Officer and Director <i>Principal Executive Officer</i>	March 23, 2022
/s/ Julie Feder Julie Feder	Chief Financial Officer Principal Financial Officer and Principal Accounting Officer	March 23, 2022
/s/ David Johnson David Johnson	Director	March 23, 2022
/s/ Giovanni Mariggi Giovanni Mariggi, Ph.D.	_ Director	March 23, 2022
/s/ Antony Mattessich Antony Mattessich	_ Director	March 23, 2022
/s/ Raj Parekh Raj Parekh, Ph.D.	_ Director	March 23, 2022
/s/ Sapna Srivastava Sapna Srivastava, Ph.D.	_ Director	March 23, 2022
/s/ Karan Takhar Karan Takhar	_ Director	March 23, 2022



Goodwin Procter LLP 100 Northern Ave. Boston, MA 02210 goodwinlaw.com +1 617 570 1000

March 23, 2022

Aura Biosciences, Inc. 85 Bolton St, Cambridge, MA 02140

Re: <u>Securities Being Registered under Registration Statement on Form S-8</u>

We have acted as counsel to you in connection with your filing of a Registration Statement on Form S-8 (the "Registration Statement") pursuant to the Securities Act of 1933, as amended (the "Securities Act"), on or about the date hereof relating to an aggregate of 1,752,698 shares (the "Shares") of Common Stock, par value \$0.00001 per share ("Common Stock"), of Aura Biosciences, Inc., a Delaware corporation (the "Company"), that may be issued pursuant to the Company's 2021 Stock Option and Incentive Plan and 2021 Employee Stock Purchase Plan (collectively, the "Plans").

We have reviewed such documents and made such examination of law as we have deemed appropriate to give the opinions set forth below. We have relied, without independent verification, on certificates of public officials and, as to matters of fact material to the opinion set forth below, on certificates of officers of the Company.

The opinion set forth below is limited to the Delaware General Corporation Law.

For purposes of the opinion set forth below, we have assumed that no event occurs that causes the number of authorized shares of Common Stock available for issuance by the Company to be less than the number of then unissued Shares.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized and, upon delivery against payment therefor in accordance with the terms of the Plans, will be validly issued, fully paid and nonassessable.

We hereby consent to the inclusion of this opinion as Exhibit 5.1 to the Registration Statement. In giving our consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations thereunder.

Very truly yours,

/S/ GOODWIN PROCTER LLP

GOODWIN PROCTER 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 Aura Biosciences, Inc. 2021 Stock Option and Incentive Plan and Aura Biosciences, Inc. 2021 Employee Stock Purchase Plan of our report dated March 23, 2022, 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, 2021, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Boston, Massachusetts March 23, 2022

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(2)	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Common Stock,	Rule 457(c) and	1,460,582(3)	\$21.06	\$30,759,856.92	\$0.0000927	\$2,851.44
	\$0.00001 par value per share,	Rule 457(h)					
	2021 Stock Option and Incentive						
	Plan						
Equity	Common Stock, \$0.00001 par	Rule 457(c) and	292,116(4)	\$21.06	\$6,151,962.96	\$0.0000927	\$570.29
	value per share, 2021 Employee	Rule 457(h)					
	Stock Purchase Plan						
Total Offering Amounts					\$36,911,819.88		_
Total Fees Previously Paid							_
Total Fee Offsets							_
Net Fee Due							\$3,421.73

- (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 become issuable under the under the 2021 Stock Option and Incentive Plan (the "2021 Plan") and the 2021 Employee Stock Purchase Plan (the "2021 ESPP") 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) The price of \$21.06 per share, which is the average of the high and low sale prices of the common stock on the Nasdaq Global Market on March 18, 2022, is set forth solely for purposes of calculating the registration fee pursuant to Rules 457(c) and (h) of the Securities Act.
- (3) Represents an automatic increase to the number of shares available for issuance under the 2021 Plan, of 1,460,582 effective as of January 1, 2022. Shares available for issuance under the 2021 Plan were previously registered on registration statements on Form S-8 filed with the Securities and Exchange Commission on October 29, 2022 (File No. 333-260589).
- (4) Represents an automatic increase to the number of shares available for issuance under the 2021 ESPP, of 292,116 effective as of January 1, 2022. Shares available for issuance under the 2021 ESPP were previously registered on registration statements on Form S-8 filed with the Securities and Exchange Commission on October 29, 2022 (File No. 333-260589).