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

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

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

Delaware
(State or other jurisdiction of
incorporation or organization)

81-0710585
(I.R.S. Employer
Identification Number)

**One Kendall Square
Building 300, Suite 201
Cambridge, Massachusetts**
(Address of Principal Executive Offices)

02139
(Zip Code)

**2018 Stock Option and Incentive Plan
2018 Employee Stock Purchase Plan**
(Full Title of the Plans)

Geoff MacKay
President and Chief Executive Officer
**One Kendall Square
Building 300, Suite 201
Cambridge, MA 02139**
(Name and address of agent for service)

(617) 914-8420
(Telephone number, including area code, of agent for service)

Copies to:

**Arthur R. McGivern, Esq.
James Xu, Esq.
Goodwin Procter LLP
100 Northern Avenue
Boston, Massachusetts 02210
(617) 570-1000**

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
Non-accelerated filer

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.

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, \$0.0001 par value per share	1,266,922 shares (2)	\$15.52 (3)	\$19,662,629.44	\$2,552.21
Common Stock, \$0.0001 par value per share	316,730 shares (4)	\$13.20 (5)	\$4,180,836.00	\$542.68
Total	1,583,652		\$23,843,465.44	\$3,094.89

- (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 common stock which become issuable under the Registrant’s 2018 Stock Option and Incentive Plan (the “Plan”) and 2018 Employee Stock Purchase Plan (the “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) Represents an automatic increase of 1,266,922 shares of common stock to the number of shares available for issuance under the Plan, effective January 1, 2020. Shares available for issuance under the Plan were previously registered on a registration statement on Form S-8 filed with the Securities and Exchange Commission on June 21, 2018 (Registration No. 333-225788) and March 25, 2019 (Registration No. 333-230494).
- (3) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(h) of the Securities Act, and based on the average of the high and low sale prices of the Registrant’s common stock, as quoted on the Nasdaq Global Select Market, on March 12, 2020.
- (4) Represents an automatic increase of 316,730 shares of common stock to the number of shares available for issuance under the ESPP, effective January 1, 2020. Shares available for issuance under the ESPP were previously registered on a registration statement on Form S-8 filed with the Securities and Exchange Commission on June 21, 2018 (Registration No. 333-225788) and March 25, 2019 (Registration No. 333-230494).
- (5) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457 of the Securities Act, and based on 85% of \$15.52 per share, which represents the average of the high and low prices of the Registrant’s common stock reported on the Nasdaq Global Select Market on March 12, 2020. Pursuant to the ESPP, the purchase price of the shares of common stock reserved for issuance thereunder will be 85% of the fair market value of a share of common stock on the first trading day of the offering period or on the exercise date, whichever is less.

EXPLANATORY NOTE

This Registration Statement on Form S-8 registers additional shares of Common Stock under the Registrant's Plan and ESPP.

The number of shares of common stock reserved and available for issuance under the Plan is subject to an automatic annual increase on each January 1, by an amount equal to the lesser of (i) 4.0% of the number of shares of common stock issued and outstanding on the immediately preceding December 31 or (ii) such amount as determined by the Administrator (as defined in the Plan), currently the Compensation Committee of the Registrant's Board of Directors. Accordingly, on January 1, 2020, the number of shares of common stock reserved and available for issuance under the Plan increased by 1,266,922 shares.

The number of shares of common stock reserved and available for issuance under the ESPP is subject to an automatic annual increase on each January 1, by an amount equal to the lesser of (i) 1.0% of the number of shares of common stock issued and outstanding on the immediately preceding December 31, (ii) 1,115,700 shares or (iii) such amount as determined by the Administrator (as defined in the ESPP), currently the Compensation Committee of the Registrant's Board of Directors. Accordingly, on January 1, 2020, the number of shares of common stock reserved and available for issuance under the ESPP increased by 316,730 shares.

The additional shares described above are of the same class as other securities relating to the Plan and the ESPP for which the Registrant's registration statements filed on Form S-8 (Registration No. 333-225788) on June 21, 2018 and on Form S-8 (Registration No. 333-230494) on March 25, 2019, are effective. The information contained in the Registrant's registration statement on Form S-8 (Registration No. 333-225788) is hereby incorporated by reference pursuant to General Instruction E.

Part II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 8. Exhibits.

Exhibit No.	Description
4.1	Fourth Amended and Restated Certificate of Incorporation of the Registrant (filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on June 25, 2018 (File No. 001-38537) and incorporated herein by reference).
4.2	Amended and Restated By-laws of the Registrant (filed as Exhibit 3.2 to the Registrant's Current Report on Form 8-K filed on June 25, 2018 (File No. 001-38537) and incorporated herein by reference).
4.3	Second Amended and Restated Investors' Rights Agreement by and among the Registrant and certain of its stockholders, dated January 9, 2018 (filed as Exhibit 4.2 to the Registrant's Registration Statement on Form S-1 filed on May 25, 2018 (File No. 333-225213) and incorporated herein by reference).
5.1*	Opinion of Goodwin Procter LLP.
23.1*	Consent of Ernst & Young LLP, 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	2018 Stock Option and Incentive Plan and forms of award agreements thereunder (filed as Exhibit 10.2 to the Registrant's Second Amendment to the Registration Statement on Form S-1 filed on June 11, 2018 (File No. 333-225213) and incorporated herein by reference).
99.2	2018 Employee Stock Purchase Plan (filed as Exhibit 10.14 to the Registrant's Second Amendment to the Registration Statement on Form S-1 filed on June 11, 2018 (File No. 333-225213) and incorporated herein by reference).

* Filed herewith.

SIGNATURES

Pursuant to the requirements of the Securities Act, 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, Commonwealth of Massachusetts, on the 16th day of March, 2020.

AVROBIO, INC.

By: /s/ Geoff MacKay
Geoff MacKay
*President, Chief Executive Officer and
Principal 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 Geoff MacKay and Erik Ostrowski 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, this Registration Statement has been signed by the following person in the capacities and on the date indicated.

Name	Title	Date
<u>/s/ Geoff MacKay</u> Geoff MacKay	<i>Director, President, Chief Executive Officer and Principal Executive Officer</i>	March 16, 2020
<u>/s/ Erik Ostrowski</u> Erik Ostrowski	<i>Chief Financial Officer and Principal Financial and Accounting Officer</i>	March 16, 2020
<u>/s/ Bruce Booth</u> Bruce Booth, D.Phil.	<i>Chairman of the Board of Directors</i>	March 16, 2020
<u>/s/ Ian T. Clark</u> Ian T. Clark	<i>Director</i>	March 16, 2020
<u>/s/ Phillip B. Donenberg</u> Phillip B. Donenberg	<i>Director</i>	March 16, 2020
<u>/s/ Annalisa Jenkins</u> Annalisa Jenkins, M.B.B.S., F.R.C.P.	<i>Director</i>	March 16, 2020
<u>/s/ Christopher Paige</u> Christopher Paige, Ph.D.	<i>Director</i>	March 16, 2020
<u>/s/ Philip Vickers</u> Philip Vickers, Ph.D.	<i>Director</i>	March 16, 2020

March 16, 2020

AVROBIO, Inc.
One Kendall Square
Building 300, Suite 201
Cambridge, MA 02139

Re: Securities Being Registered under Registration Statement on Form S-8

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 1,583,652 shares (the "Shares") of Common Stock, \$0.0001 par value per share ("Common Stock"), of AVROBIO, Inc., a Delaware corporation (the "Company"), that may be issued pursuant to the Company's 2018 Stock Option and Incentive Plan and 2018 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 issuance and 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 2018 Stock Option and Incentive Plan and the 2018 Employee Stock Purchase Plan of AVROBIO, Inc. of our report dated March 16, 2020, with respect to the consolidated financial statements of AVROBIO, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2019, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Boston, Massachusetts
March 16, 2020