

**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)

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

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

**02139**  
(Zip Code)

**AVROBIO, Inc. 2020 Inducement Plan  
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	<input type="checkbox"/>		Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>		Smaller reporting company	<input checked="" type="checkbox"/>
			Emerging growth company	<input checked="" type="checkbox"/>

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	1,700,000 shares (2)	\$12.93 (3)	\$21,981,000.00	\$2,398.13
Common Stock, \$0.0001 par value per share	1,662,762 shares (4)	\$12.93 (5)	\$21,499,512.66	\$2,345.60

Common Stock, \$0.0001 par value per share	415,690 shares (6)	\$10.99 (7)	\$4,568,433.10	\$498.42
Total	3,778,452 shares		\$48,048,945.76	\$5,242.15

- (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 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 common stock reserved and available for future issuance under the registrant’s 2020 Inducement Plan (the “Inducement Plan”).
- (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 sales prices of the registrant’s common stock, as quoted on the Nasdaq Global Select Market, on March 12, 2021.
- (4) Represents an automatic increase of 1,662,762 shares of common stock to the number of shares available for issuance under the Registrant’s 2018 Stock Option and Incentive Plan (the “Plan”), effective January 1, 2021. 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), March 25, 2019 (Registration No. 333-230494), March 16, 2020 (Registration No. 333-237203) and August 6, 2020 (Registration No. 333-241400).
- (5) 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 sales prices of the registrant’s common stock, as quoted on the Nasdaq Global Select Market, on March 12, 2021.
- (6) Represents an automatic increase of 415,690 shares of common stock to the number of shares available for issuance under the registrant’s 2018 Employee Stock Purchase Plan (the “ESPP”), effective January 1, 2021. 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), March 25, 2019 (Registration No. 333-230494) and March 16, 2020 (Registration No. 333-237203).
- (7) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457 of the Securities Act, and based on 85% of \$12.93 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, 2021. 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.

Proposed sales to take place as soon after the effective date of the Registration Statement as awards are granted, exercised or distributed under the Inducement Plan.

## EXPLANATORY NOTE

This Registration Statement on Form S-8 (the “Registration Statement”) is being filed for the purpose of (i) registering 1,700,000 shares of common stock reserved and available for future issuance under the registrant’s Inducement Plan and (ii) registering additional shares of common stock under the registrant’s Plan and ESPP.

### *Plan and ESPP Increase*

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, 2021, the number of shares of common stock reserved and available for issuance under the Plan increased by 1,662,762 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, 2021, the number of shares of common stock reserved and available for issuance under the ESPP increased by 415,690 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, on Form S-8 (Registration No. 333-230494) on March 25, 2019, on Form S-8 (Registration No. 333-237203) on March 16, 2020 and on Form S-8 (Registration No. 333-241400) on August 6, 2020 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 I INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS**

### **Item 1. Plan Information.**

The documents containing the information specified in this Item 1 will be sent or given to participants as specified by Rule 428(b)(1) under the Securities Act. In accordance with the rules and regulations of the Securities and Exchange Commission (the “Commission”) and the instructions to Form S-8, such documents are not being filed with the Commission either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 under the Securities Act.

### **Item 2. Registrant Information and Employee Plan Annual Information.**

The documents containing the information specified in this Item 2 will be sent or given to participants as specified by Rule 428(b)(1) under the Securities Act. In accordance with the rules and regulations of the Commission and the instructions to Form S-8, such documents are not being filed with the Commission either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 under the Securities Act.

## **Part II INFORMATION REQUIRED IN THE REGISTRATION STATEMENT**

### **Item 3. Incorporation of Documents by Reference.**

The registrant hereby incorporates by reference into this Registration Statement the following documents filed with the Commission:

- (a) The registrant’s Annual Report on [Form 10-K](#) filed on March 18, 2021;
- (b) The registrant’s definitive proxy statement on [Schedule 14A](#) filed on April 22, 2020;

- (c) The registrant's Current Report on [Form 8-K](#) filed on February 8, 2021 (except for information contained therein which is furnished rather than filed); and
- (d) The description of the registrant's common stock contained in the registrant's Registration Statement on [Form 8-A](#) (File No. 001-38537), filed by the registrant with the Commission under Section 12(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), on June 18, 2018, including any amendments or reports filed for the purpose of updating such description.

All documents that the registrant subsequently files pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act prior to the filing of a post-effective amendment to this registration statement which indicates that all of the shares of common stock offered have been sold or which deregisters all of such shares then remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be a part hereof from the date of the filing of such documents.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded 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 superseded, to constitute a part of this registration statement.

Under no circumstances will any information filed under current items 2.02 or 7.01 of Form 8-K be deemed incorporated herein by reference unless such Form 8-K expressly provides to the contrary.

**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 (the "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.

We have adopted provisions in our certificate of incorporation and bylaws that limit or eliminate the personal liability of our directors to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended. Consequently, a director will not be personally liable to us or our stockholders for monetary damages or breach of fiduciary duty as a director, except for liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- any unlawful payments related to dividends or unlawful stock purchases, redemptions or other distributions; or
- any transaction from which the director derived an improper personal benefit.

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, our bylaws provide that:

- we will indemnify our directors, officers and, in the discretion of our 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
- we will advance reasonable expenses, including attorneys' fees, to our directors and, in the discretion of our board of directors, to our officers and certain employees, in connection with legal proceedings relating to their service for or on behalf of us, subject to limited exceptions.

We have entered into indemnification agreements with each of our directors and executive officers. These agreements provide that we will indemnify each of our directors, certain of our executive officers and, at times, their affiliates to the fullest extent permitted by Delaware law. We will advance expenses, including attorneys' fees (but excluding judgments, fines and settlement amounts), to each indemnified director or executive officer in connection with any proceeding in which indemnification is available and we will indemnify our directors and officers for any action or proceeding arising out of that person's services as a director or officer brought on behalf of us or in furtherance of our rights. Additionally, certain of our 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, we have agreed in the indemnification agreements that our 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.

We also maintain general liability insurance which covers certain liabilities of our 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**

<u>Exhibit No.</u>	<u>Description</u>
4.1	<a href="#"><u>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).</u></a>
4.2	<a href="#"><u>Certificate of Change of Registered Agent and/or Registered Office of the Registrant (filed as Exhibit 3.2 to the Registrant's Quarterly Report on Form 10-Q filed on November 5, 2020 (File No. 001-38537) and incorporated herein by reference).</u></a>
4.3	<a href="#"><u>Amended and Restated By-laws (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).</u></a>
4.4	<a href="#"><u>Second Amended and Restated Investors' Rights Agreement 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).</u></a>
5.1*	<a href="#"><u>Opinion of Goodwin Procter LLP</u></a>
23.1*	<a href="#"><u>Consent of Ernst &amp; Young LLP, Independent Registered Public Accounting Firm</u></a>
23.2*	<a href="#"><u>Consent of Goodwin Procter LLP (included in Exhibit 5.1)</u></a>
24.1*	<a href="#"><u>Power of Attorney (included on signature page)</u></a>
99.1	<a href="#"><u>AVROBIO, Inc. 2020 Inducement Plan and form of award agreement thereunder (filed as Exhibit 10.25 to the Registrant's Annual Report on Form 10-K filed on March 18, 2021 (File No. 001-38537) and incorporated herein by reference).</u></a>

\* Filed herewith.

**Item 9. Undertakings.**

(a) The 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.

(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) herein 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 Section 15(d) of the Exchange Act (15 U.S.C. 78m or 78o(d)) 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 Section 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.

(h) 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, 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 18<sup>th</sup> day of March, 2021.

### 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 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 persons 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 18, 2021
<u>/s/ Erik Ostrowski</u> Erik Ostrowski	<i>Chief Financial Officer and Principal Financial and Accounting Officer</i>	March 18, 2021
<u>/s/ Bruce Booth</u> Bruce Booth, D.Phil.	<i>Chairman of the Board of Directors</i>	March 18, 2021
<u>/s/ Ian T. Clark</u> Ian T. Clark	<i>Director</i>	March 18, 2021
<u>/s/ Phillip B. Donenberg</u> Phillip B. Donenberg	<i>Director</i>	March 18, 2021
<u>/s/ Gail M. Farfel</u> Gail M. Farfel, Ph.D.	<i>Director</i>	March 18, 2021
<u>/s/ Annalisa Jenkins</u> Annalisa Jenkins, M.B.B.S., F.R.C.P.	<i>Director</i>	March 18, 2021
<u>/s/ Christopher Paige</u> Christopher Paige, Ph.D.	<i>Director</i>	March 18, 2021
<u>/s/ Philip Vickers</u> Philip Vickers, Ph.D.	<i>Director</i>	March 18, 2021

March 18, 2021

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 3,778,452 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 2020 Inducement Plan, the Company's 2018 Stock Option and Incentive Plan and the Company's 2018 Employee Stock Purchase Plan, as amended (collectively with the Company's 2020 Inducement Plan and 2018 Stock Option and Incentive Plan, 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 AVROBIO, Inc. 2020 Inducement Plan, the 2018 Stock Option and Incentive Plan of AVROBIO, Inc. and the 2018 Employee Stock Purchase Plan of AVROBIO, Inc. of our report dated March 18, 2021, with respect to the consolidated financial statements of AVROBIO, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2020, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Boston, Massachusetts  
March 18, 2021