UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8 REGISTRATION STATEMENT

Under

The Securities Act of 1933

CABALETTA BIO, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation)

2929 Arch Street, Suite 600 Philadelphia, PA (Address of principal executive offices) 82-1685768 (I.R.S. Employer Identification No.)

> 19104 (Zip Code)

Cabaletta Bio, Inc. 2019 Stock Option and Incentive Plan Cabaletta Bio, Inc. 2019 Employee Stock Purchase Plan (Full title of the plans)

Steven Nichtberger President and Chief Executive Officer Cabaletta Bio, Inc. 2929 Arch Street, Suite 600 Philadelphia, PA 19104 (267) 759-3100 (Name, address, including zip code, and telephone number, including area code, of agent for service)

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, anon-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	\boxtimes	Emerging growth company	
		Smaller reporting company	\times

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(6)
2019 Stock Option and Incentive Plan, Common Stock, \$0.00001				
par value per share	961,361(2)	\$8.02(3)	\$7,710,115.22	\$1,000.78
2019 Employee Stock Purchase Plan, Common Stock, \$0.00001 par				
value per share	234,229(4)	\$6.82(5)	\$1,597,441.78	\$207.35
Total	1,195,590		\$9,307,557.00	\$1,208.13

(1) In accordance with Rule 416(a) under the Securities Act of 1933, as amended, this registration statement shall be deemed to cover any additional securities that may from time to time be offered or issued to prevent dilution resulting from stock splits, stock dividends or similar transactions effected without the receipt of consideration which results in an increase in the number of our outstanding shares of common stock.

(2) Consists of 961,361 additional shares issuable under the 2019 Stock Option and Incentive Plan (the "2019 Plan"), which represents the automatic annual increase to the number of shares available for issuance under the 2019 Plan effective as of January 1, 2020. Shares available for issuance under the 2019 Plan were previously registered on registration statement on Form S-8 filed with the Securities and Exchange Commission on October 29, 2019 (File No. 333-234367).

(3) Estimated solely for the purpose of calculating the registration fee pursuant to Rules 457(c) and 457(h) of the Securities Act of 1933, as amended. The price per share and aggregate offering price are calculated on the basis of \$8.02, the average of the high and low price of the registrant's Common Stock as reported on the Nasdaq Global Select Market on March 26, 2020.

(4) Consists of 234,229 additional shares issuable under the 2019 Employee Stock Purchase Plan (the "2019 ESPP"), which represents the automatic annual increase to the number of shares available for issuance under the 2019 ESPP effective as of January 1, 2020. Shares available for issuance under the 2019 ESPP were previously registered on registration statement on Form S-8 filed with the Securities and Exchange Commission on October 29, 2019 (File No. 333-234367).

(6) Calculated pursuant to Section 6(b) of the Securities Act of 1933, as amended.

⁽⁵⁾ The price of \$6.82 per share, which is 85% of the average of the high and low sale prices of the Common Stock of the Registrant as quoted on the Nasdaq Global Select Market on March 26, 2020, is set forth solely for purposes of calculating the registration fee pursuant to Rules 457(c) and (h) of the Securities Act of 1933, as amended, and has been used as these shares are without a fixed price. Pursuant to the 2019 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.

STATEMENT OF INCORPORATION BY REFERENCE

This Registration Statement on Form S-8 is filed to register the offer and sale of (i) an additional 961,361 shares of the Registrant's common stock, \$0.00001 par value per share, to be issued under the Registrant's 2019 Stock Option and Incentive Plan and (ii) an additional 234,229 shares of the Registrant's common stock, \$0.00001 par value per share, to be issued under the Registrant's 2019 Employee Stock Purchase Plan. This Registration Statement incorporates by reference the contents of the registration statement on Form S-8, File No. 333-234367, filed by the Registrant on October 29, 2019, relating to the Registrant's 2019 Stock Option and Incentive Plan and 2019 Employee Stock Purchase Plan pursuant to General Instruction E.

Part II

Information Required in the Registration Statement

Item 8. Exhibits

Refer to the Exhibit Index on the next page for a list of exhibits filed as part of this registration statement, which Exhibit Index is incorporated herein by reference.

EXHIBIT INDEX

Exhibit No.	Description of Exhibit
4.1	Third Amended and Restated Certificate of Incorporation of the Registrant, as currently in effect (Incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K (File No. 001-39103) filed on October 30, 2019).
4.2	Amended and Restated Bylaws (Incorporated by reference to Exhibit 3.2 of the registrant's Current Report on Form8-K (File No. 001-39103) filed on October 30, 2019).
4.3	Amended and Restated Investors' Rights Agreement by and among the Registrant and certain of its stockholders, dated January 2, 2019 (Incorporated by reference to Exhibit 4.2 to the Registrant's Registration Statement on Form S-1, as amended (File No. 333-234017) filed on October 16, 2019).
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	2019 Stock Option and Incentive Plan, and forms of award agreements thereunder (Incorporated by reference to Exhibit 10.2 to the registrant's Registration Statement on Form S-1, as amended (File No. 333-234017) filed with the SEC on October 16, 2019).
99.2	2019 Employee Stock Purchase Plan (Incorporated by reference to Exhibit 10.3 to the registrant's Registration Statement on FormS-1, as amended (File No. 333-234017) filed with the SEC on October 16, 2019).

* 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 Philadelphia, Commonwealth of Pennsylvania, on this 30th day of March, 2020.

CABALETTA BIO, INC.

By:

/s/ Steven Nichtberger

Steven Nichtberger 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 Steven Nichtberger and Anup Marda 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/ Steven Nichtberger Steven Nichtberger, M.D.	President, Chief Executive Officer and Director (<i>Principal Executive Officer</i>)	March 30, 2020
/s/ Anup Marda Anup Marda	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 30, 2020
/s/ Catherine Bollard Catherine Bollard, M.D.	Director	March 30, 2020
/s/ Brian Daniels Brian Daniels, M.D.	Director	March 30, 2020
/s/ Richard Henriques Richard Henriques	Director	March 30, 2020
/s/ Mark Simon Mark Simon	Director	March 30, 2020

Cabaletta Bio, Inc. 2929 Arch Street, Suite 600 Philadelphia, PA 19104

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 FormS-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 1,195,590 shares (the "Shares") of Common Stock, \$0.00001 par value per share ("Common Stock"), of Cabaletta Bio, Inc., a Delaware corporation (the "Company"), that may be issued pursuant to the Company's 2019 Stock Option and Incentive Plan and 2019 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 No. 333-XXXXX) pertaining to the Cabaletta Bio, Inc. 2019 Stock Option and Incentive Plan and the Cabaletta Bio, Inc. 2019 Employee Stock Purchase Plan of our report dated March 30, 2020, with respect to the financial statements of Cabaletta Bio, 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

Philadelphia, Pennsylvania March 30, 2020