

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

SCHEDULE 13D

(Rule 13d-102)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT
TO RULE 13d-1(a) AND AMENDMENTS THERETO FILED PURSUANT
TO RULE 13d-2(a)

(Amendment No. 3)*

Cabaletta Bio, Inc.

(Name of Issuer)

Common Stock

(Title of Class of Securities)

12674W109

(CUSIP Number)

Rebecca Lucia
5AM Venture Management, LLC
501 2nd Street, Suite 350
San Francisco, CA 94107
(415) 993-8565

(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

September 7, 2021

(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box.

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act.

CUSIP No. 12674W109

13D

Page 2 of 11

1. Name of Reporting Persons

5AM Ventures V, L.P.

2. Check the Appropriate Box if a Member of a Group (see instructions)

(a)

(b)

(1)

3. SEC USE ONLY

4. Source of Funds (see instructions)

WC

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

Delaware

7. Sole Voting Power

0

Number of

| | | |
|--|-----|--------------------------------------|
| Shares | 8. | Shared Voting Power |
| Beneficially Owned by Each Reporting Person With | | 1,989,575 shares of Common Stock (2) |
| | 9. | Sole Dispositive Power |
| | | 0 |
| | 10. | Shared Dispositive Power |
| | | 1,989,575 shares of Common Stock (2) |

11. Aggregate Amount Beneficially Owned by Each Reporting Person

1,989,575 shares of Common Stock (2)

12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (see instructions)

13. Percent of Class Represented by Amount in Row 11

9.6% of Common Stock; 8.0% of Combined Common Stock (3)

14. Type of Reporting Person (see instructions)

PN

- (1) This Schedule 13D is filed by 5AM Partners V, LLC ("5AM Partners V"), 5AM Ventures V, L.P. ("5AM V"), 5AM Opportunities I, L.P. ("5AM Opportunities"), 5AM Opportunities I (GP), LLC ("5AM Opportunities GP"), Andrew J. Schwab ("Schwab"), Dr. Kush Parmar ("Dr. Parmar") and Dr. Scott M. Rocklage ("Dr. Rocklage" and, with 5AM Partners V, 5AM V, 5AM Opportunities, 5AM Opportunities GP, Schwab, Dr. Parmar and Dr. Rocklage, collectively, the "Reporting Persons"). The Reporting Persons expressly disclaim status as a "group" for purposes of this Schedule 13D.
- (2) These shares are held by 5AM V, Schwab, Dr. Parmar and Dr. Rocklage, as managing members of 5AM Partners V, share voting and investment authority over the shares held by 5AM V.
- (3) Based on 20,660,330 shares of voting common stock ("Common Stock") and 4,312,500 shares of non-voting common stock ("Non-Voting Common Stock" and, together with the Common Stock, the "Combined Common Stock") outstanding as of June 30, 2021 as set forth in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2021, filed with the SEC on August 5, 2021.

CUSIP No. 12674W109

13D

Page 3 of 11

| | | |
|---|--|---|
| 1. | Name of Reporting Persons | |
| | 5AM Partners V, LLC | |
| 2. | Check the Appropriate Box if a Member of a Group (see instructions) | <input type="checkbox"/> |
| | (a) | <input type="checkbox"/> |
| | (b) | <input checked="" type="checkbox"/> (1) |
| 3. | SEC USE ONLY | |
| 4. | Source of Funds (see instructions) | |
| | AF | |
| 5. | Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e) | <input type="checkbox"/> |
| 6. | Citizenship or Place of Organization | |
| | Delaware | |
| | 7. | Sole Voting Power |
| | | 0 |
| Number of Shares Beneficially Owned by Each Reporting Person With | 8. | Shared Voting Power |
| | | 1,989,575 shares of Common Stock (2) |
| | 9. | Sole Dispositive Power |
| | | 0 |
| | 10. | Shared Dispositive Power |
| | | 1,989,575 shares of Common Stock (2) |

11. Aggregate Amount Beneficially Owned by Each Reporting Person

1,989,575 shares of Common Stock (2)

12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (see instructions)

13. Percent of Class Represented by Amount in Row 11

9.6% of Common Stock; 8.0% of Combined Common Stock (3)

14. Type of Reporting Person (see instructions)

OO

(1) This Schedule 13D is filed by the Reporting Persons. The Reporting Persons expressly disclaim status as a "group" for purposes of this Schedule 13D.

(2) These shares are held by 5AM V. Schwab, Dr. Parmar and Dr. Rocklage, as managing members of 5AM Partners V, share voting and investment authority over the shares held by 5AM V.

(3) Based on 20,660,330 shares of voting common stock ("Common Stock") and 4,312,500 shares of non-voting common stock ("Non-Voting Common Stock" and, together with the Common Stock, the "Combined Common Stock") outstanding as of June 30, 2021 as set forth in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2021, filed with the SEC on August 5, 2021.

CUSIP No. 12674W109

13D

Page 4 of 11

1. Name of Reporting Persons

5AM Opportunities I, L.P.

2. Check the Appropriate Box if a Member of a Group (see instructions)

(a)

(b)

(1)

3. SEC USE ONLY

4. Source of Funds (see instructions)

WC

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

Delaware

7. Sole Voting Power

0

Number of
Shares

8. Shared Voting Power

369,688 shares of Common Stock (2)

Beneficially
Owned by
Each

9. Sole Dispositive Power

0

Reporting
Person With

10. Shared Dispositive Power

369,688 shares of Common Stock (2)

11. Aggregate Amount Beneficially Owned by Each Reporting Person

369,688 shares of Common Stock (2)

12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (see instructions)

13. Percent of Class Represented by Amount in Row 11

1.8% of Common Stock; 1.5 % of Combined Common Stock (3)

14. Type of Reporting Person (see instructions)

PN

(1) This Schedule 13D is filed by the Reporting Persons. The Reporting Persons expressly disclaim status as a "group" for purposes of this Schedule 13D.

(2) These shares are held by 5AM Opportunities. Schwab and Dr. Parmar, as managing members of 5AM Opportunities GP, share voting and investment authority over the shares held by 5AM Opportunities.

(3) Based on 20,660,330 shares of voting common stock ("Common Stock") and 4,312,500 shares of non-voting common stock ("Non-Voting Common Stock" and, together with the Common Stock, the "Combined Common Stock") outstanding as of June 30, 2021 as set forth in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2021, filed with the SEC on August 5, 2021.

CUSIP No. 12674W109

13D

Page 5 of 11

| | | | |
|-----|--|---|--------------------------|
| 1. | Name of Reporting Persons | | |
| | 5AM Opportunities I (GP), LLC | | |
| 2. | Check the Appropriate Box if a Member of a Group (see instructions) | | |
| | (a) | <input type="checkbox"/> | |
| | (b) | <input checked="" type="checkbox"/> (1) | |
| 3. | SEC USE ONLY | | |
| 4. | Source of Funds (see instructions) | | |
| | AF | | |
| 5. | Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e) | <input type="checkbox"/> | |
| 6. | Citizenship or Place of Organization | | |
| | Delaware | | |
| | 7. | Sole Voting Power | |
| | Number of Shares | 0 | |
| | Beneficially Owned by Each Reporting Person With | 8. | Shared Voting Power |
| | | 369,688 shares of Common Stock (2) | |
| | | 9. | Sole Dispositive Power |
| | | 0 | |
| | | 10. | Shared Dispositive Power |
| | | 369,688 shares of Common Stock (2) | |
| 11. | Aggregate Amount Beneficially Owned by Each Reporting Person | | |
| | 369,688 shares of Common Stock (2) | | |
| 12. | Check if the Aggregate Amount in Row (11) Excludes Certain Shares (see instructions) | <input type="checkbox"/> | |
| 13. | Percent of Class Represented by Amount in Row 11 | | |
| | 1.8% of Common Stock; 1.5% of Combined Common Stock (3) | | |
| 14. | Type of Reporting Person (see instructions) | | |
| | OO | | |

(1) This Schedule 13D is filed by the Reporting Persons. The Reporting Persons expressly disclaim status as a "group" for purposes of this Schedule 13D.

(2) These shares are held by 5AM Opportunities. Schwab and Dr. Parmar, as managing members of 5AM Opportunities GP, share voting and investment authority over the shares held by 5AM Opportunities.

(3) Based on 20,660,330 shares of voting common stock ("Common Stock") and 4,312,500 shares of non-voting common stock ("Non-Voting Common Stock" and, together with the Common Stock, the "Combined Common Stock") outstanding as of June 30, 2021 as set forth in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2021, filed with the SEC on August 5, 2021.

CUSIP No. 12674W109

13D

Page 6 of 11

| | | |
|----|---|---|
| 1. | Name of Reporting Persons | |
| | Dr. Kush Parmar | |
| 2. | Check the Appropriate Box if a Member of a Group (see instructions) | |
| | (a) | <input type="checkbox"/> |
| | (b) | <input checked="" type="checkbox"/> (1) |
| 3. | SEC USE ONLY | |

| | | |
|---|--|--------------------------|
| 4. | Source of Funds (see instructions) | |
| | AF | |
| 5. | Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e) | <input type="checkbox"/> |
| 6. | Citizenship or Place of Organization | |
| | United States | |
| | 7. Sole Voting Power | |
| Number of Shares Beneficially Owned by Each Reporting Person With | 0 | |
| | 8. Shared Voting Power | |
| | 2,359,263 shares of Common Stock (2) | |
| | 9. Sole Dispositive Power | |
| | 0 | |
| | 10. Shared Dispositive Power | |
| | 2,359,263 shares of Common Stock (2) | |
| 11. | Aggregate Amount Beneficially Owned by Each Reporting Person | |
| | 2,359,263 shares of Common Stock (2) | |
| 12. | Check if the Aggregate Amount in Row (11) Excludes Certain Shares (see instructions) | <input type="checkbox"/> |
| 13. | Percent of Class Represented by Amount in Row 11 | |
| | 11.4% of Common Stock; 9.4% of Combined Common Stock (3) | |
| 14. | Type of Reporting Person (see instructions) | |
| | IN | |

- (1) This Schedule 13D is filed by the Reporting Persons. The Reporting Persons expressly disclaim status as a "group" for purposes of this Schedule 13D.
- (2) Includes (i) 1,989,575 shares held by 5AM V; and (ii) 369,688 shares held by 5AM Opportunities. Dr. Rocklage, Schwab and Dr. Parmar, as managing members of 5AM Partners V, share voting and investment authority over the shares held by 5AM V. Schwab and Dr. Parmar, as managing members of 5AM Opportunities GP, share voting and investment authority over the shares held by 5AM Opportunities.
- (3) Based on 20,660,330 shares of voting common stock ("Common Stock") and 4,312,500 shares of non-voting common stock ("Non-Voting Common Stock" and, together with the Common Stock, the "Combined Common Stock") outstanding as of June 30, 2021 as set forth in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2021, filed with the SEC on August 5, 2021.

CUSIP No. 12674W109

13D

Page 7 of 11

| | | |
|---|--|---|
| 1. | Name of Reporting Persons | |
| | Andrew J. Schwab | |
| 2. | Check the Appropriate Box if a Member of a Group (see instructions) | |
| (a) | | <input type="checkbox"/> |
| (b) | | <input checked="" type="checkbox"/> (1) |
| 3. | SEC USE ONLY | |
| 4. | Source of Funds (see instructions) | |
| | AF | |
| 5. | Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e) | <input type="checkbox"/> |
| 6. | Citizenship or Place of Organization | |
| | United States | |
| | 7. Sole Voting Power | |
| Number of Shares Beneficially Owned by Each | 0 | |
| | 8. Shared Voting Power | |
| | 2,359,263 shares of Common Stock (2) | |
| | 9. Sole Dispositive Power | |
| | 0 | |

Reporting
Person With

10. Shared Dispositive Power
2,359,263 shares of Common Stock (2)

11. Aggregate Amount Beneficially Owned by Each Reporting Person

2,359,263 shares of Common Stock (2)

12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (see instructions)

13. Percent of Class Represented by Amount in Row 11

11.4% of Common Stock; 9.4% of Combined Common Stock (3)

14. Type of Reporting Person (see instructions)

IN

(1) This Schedule 13D is filed by the Reporting Persons. The Reporting Persons expressly disclaim status as a "group" for purposes of this Schedule 13D.

(2) Includes (i) 1,989,575 shares held by 5AM V; and (ii) 369,688 shares held by 5AM Opportunities. Schwab, Dr. Rocklage and Dr. Parmar, as managing members of 5AM Partners V, share voting and investment authority over the shares held by 5AM V. Schwab and Dr. Parmar, as managing members of 5AM Opportunities GP, share voting and investment authority over the shares held by 5AM Opportunities.

(3) Based on 20,660,330 shares of voting common stock ("Common Stock") and 4,312,500 shares of non-voting common stock ("Non-Voting Common Stock" and, together with the Common Stock, the "Combined Common Stock") outstanding as of June 30, 2021 as set forth in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2021, filed with the SEC on August 5, 2021.

CUSIP No. 12674W109

13D

Page 8 of 11

1. Name of Reporting Persons

Dr. Scott M. Rocklage

2. Check the Appropriate Box if a Member of a Group (see instructions)

(a)

(b)

(1)

3. SEC USE ONLY

4. Source of Funds (see instructions)

AF

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

United States

7. Sole Voting Power

0

Number of
Shares

8. Shared Voting Power

1,989,575 shares of Common Stock (2)

Beneficially
Owned by

9. Sole Dispositive Power

Each
Reporting

0

10. Shared Dispositive Power

Person With

1,989,575 shares of Common Stock (2)

11. Aggregate Amount Beneficially Owned by Each Reporting Person

1,989,575 shares of Common Stock (2)

12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (see instructions)

13. Percent of Class Represented by Amount in Row 11

9.6% of Common Stock; 8.0% of Combined Common Stock (3)

14. Type of Reporting Person (see instructions)

IN

(1) This Schedule 13D is filed by the Reporting Persons. The Reporting Persons expressly disclaim status as a "group" for purposes of this Schedule 13D.

(2) The shares held by 5AM V. Dr. Parmar, Schwab and Dr. Rocklage, as managing members of 5AM Partners V, share voting and investment authority over the shares held by 5AM V.

(3) Based on 20,660,330 shares of voting common stock (“Common Stock”) and 4,312,500 shares of non-voting common stock (“Non-Voting Common Stock” and, together with the Common Stock, the “Combined Common Stock”) outstanding as of June 30, 2021 as set forth in the Issuer’s Quarterly Report on Form 10-Q for the quarter ended June 30, 2021, filed with the SEC on August 5, 2021.

Explanatory Note: This Amendment No. 3 (the “Amendment”), which further amends the Schedule 13D filed with the Securities and Exchange Commission (the “SEC”) on November 12, 2019 and amended on December 14, 2020 and January 12, 2021 (as amended, the “Original Schedule 13D”) is being filed on behalf of 5AM Partners V, LLC (“5AM Partners V”), 5AM Ventures V, L.P. (“5AM V”), 5AM Opportunities I, L.P. (“5AM Opportunities”), 5AM Opportunities I (GP), LLC (“5AM Opportunities GP”), Andrew J. Schwab (“Schwab”), Dr. Kush Parmar (“Dr. Parmar”) and Dr. Scott M. Rocklage (“Dr. Rocklage”) and, with 5AM Partners V, 5AM V, 5AM Opportunities, 5AM Opportunities GP, Schwab, Dr. Parmar and Dr. Rocklage, collectively, the “Reporting Persons”) in respect of the Voting Common Stock, \$0.0001 par value per share (“Common Stock”), of Cabaletta Bio, Inc., a Delaware corporation (the “Issuer”) This Amendment is being filed by the Reporting Persons to report open market sales of Common Stock on September 7, 2021. Accordingly, the number of securities beneficially owned by the Reporting Persons has decreased as described in Items 4 and 5 below.

Items 4 and 5 of the Original Schedule 13D are hereby amended and supplemented to the extent hereinafter expressly set forth and, except as amended and supplemented hereby, the Original Schedule 13D remains in full force and effect. All capitalized terms used in this Amendment but not defined herein shall have the meanings ascribed thereto in the Original Schedule 13D.

Item 4. Purpose of Transaction

Item 4 of the Original Schedule 13D is hereby amended and supplemented by adding the following paragraph at the end of Item 4:

On September 7, 2021, 5AM Ventures V, L.P. sold 625,000 shares of Common Stock in open market transactions for \$9.70 per share.

Item 5. Interest in Securities of the Issuer

Item 5 of the Original Schedule 13D is hereby amended and restated in its entirety as follows:

(a) – (b). The following information with respect to the ownership of the Common Stock of the Issuer by the persons filing this statement on Schedule 13D is provided as of September 9, 2021:

| Reporting Persons | Shares Held Directly | Sole Voting Power | Shared Voting Power(1) | Sole Dispositive Power | Shared Dispositive Power (1) | Beneficial Ownership | Percentage of Class (3) | Percentage of Combined Common Stock (4) |
|--------------------------|----------------------|-------------------|------------------------|------------------------|------------------------------|----------------------|-------------------------|---|
| 5AM V | 1,989,575 | 0 | 1,989,575 | 0 | 1,989,575 | 1,989,575 | 9.6% | 8.0% |
| 5AM Partners V | | | | | | | | |
| (1) | 0 | 0 | 1,989,575 | 0 | 1,989,575 | 1,989,575 | 9.6% | 8.0% |
| 5AM Opportunities | 369,688 | 0 | 369,688 | 0 | 369,688 | 369,688 | 1.8% | 1.5% |
| 5AM Opportunities GP (2) | 0 | 0 | 369,688 | 0 | 369,688 | 369,688 | 1.8% | 1.5% |
| Dr. Parmar (1)(2) | 0 | 0 | 2,359,263 | 0 | 2,359,263 | 2,359,263 | 11.4% | 9.4% |
| Schwab (1) (2) | 0 | 0 | 2,359,263 | 0 | 2,359,263 | 2,359,263 | 11.4% | 9.4% |
| Dr. Rocklage (1) | 0 | 0 | 1,989,575 | 0 | 1,989,575 | 1,989,575 | 9.6% | 8.0% |

(1) Includes 1,989,575 shares of Common Stock held by 5AM V, Dr. Parmar, Schwab and Dr. Rocklage, as managing members of 5AM Partners V, share voting and investment authority over the shares held by 5AM V.

(2) Includes 369,688 shares of Common Stock held by 5AM Opportunities, Schwab and Dr. Parmar, as managing members of 5AM Opportunities GP, share voting and investment authority over the shares held by 5AM Opportunities.

(3) Based on 20,660,330 shares of voting Common Stock outstanding as of June 30, 2021 as set forth in the Issuer’s Quarterly Report on Form 10-Q for the quarter ended June 30, 2021, filed with the SEC on August 5, 2021.

(4) Based on 4,312,500 shares of non-voting common stock (the “Non-Voting Common Stock,” together with the Common Stock, the “Combined Common Stock”) outstanding as of June 30, 2021 as set forth in the Issuer’s Quarterly Report on Form 10-Q for the quarter ended June 30, 2021, filed with the SEC on August 5, 2021

(c) Except as set forth herein, none of the Reporting Persons has effected any transactions in shares of the Issuer’s Common Stock in the last sixty days.

(d) No other person is known to have the right to receive or the power to direct the receipt of dividends from, or any proceeds from the sale of, the shares of Common Stock beneficially owned by any of the Reporting Persons.

(e) Not applicable.

SIGNATURES

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: September 9, 2021

5AM VENTURES V, L.P.

By: 5AM Partners V, LLC,
its General Partner

By: /s/ Scott M. Rocklage
Dr. Scott M. Rocklage
Managing Member

5AM PARTNERS V, LLC

By: /s/ Scott M. Rocklage
Dr. Scott M. Rocklage
Managing Member

5AM OPPORTUNITIES I, L.P.

By: 5AM Opportunities I (GP), LLC,
its General Partner

By: /s/ Kush Parmar
Dr. Kush Parmar
Managing Member

5AM OPPORTUNITIES I (GP), LLC

By: /s/ Kush Parmar
Dr. Kush Parmar
Managing Member

/s/ Kush Parmar
Dr. Kush Parmar

/s/ Scott Rocklage
Dr. Scott Rocklage

/s/ Andrew J. Schwab
Andrew J. Schwab
