

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.)*

IDEAYA Biosciences, Inc.

(Name of Issuer)

Common Stock, par value \$0.0001 per share

(Title of Class of Securities)

45166A 102

(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)

May 28, 2019

(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.

1. Name of Reporting Persons
5AM Ventures IV, 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, United States

7. Sole Voting Power
0

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With

8. Shared Voting Power
2,844,545 shares of common stock (2)

9. Sole Dispositive Power
0

10. Shared Dispositive Power
2,844,545 shares of common stock (2)

11. Aggregate Amount Beneficially Owned by Each Reporting Person
2,844,545 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
14.1% (3)

14. Type of Reporting Person (See Instructions)
PN

(1) This Schedule 13D is filed by 5AM Partners IV, LLC (“5AM Partners IV”), 5AM Ventures IV, L.P. (“5AM IV”), 5AM Co-Investors IV, L.P. (“5AM Co-Investors IV”), 5AM Opportunities I, L.P. (“5AM Opportunities”), 5AM Opportunities I (GP), LLC (“5AM Opportunities GP”), Dr. John D. Diekman (“Diekman”), Andrew J. Schwab (“Schwab”) and Dr. Scott M. Rocklage (“Rocklage” and, with 5AM Partners IV, 5AM IV, 5AM Co-Investors IV, 5AM Opportunities, 5AM Opportunities GP, Diekman and Schwab, 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 IV. Diekman, Schwab and Rocklage, as managing members of 5AM Partners IV, share voting and investment authority over the shares held by 5AM IV.

(3) This calculation is based on 20,228,654 shares of Common Stock, par value \$0.0001 per share, outstanding as of May 28, 2019 upon the closing of the Issuer’s initial public offering, as reported in the Issuer’s prospectus dated May 24, 2019 (the “Final Prospectus”) filed with the Securities and Exchange Commission (the “SEC”) pursuant to Rule 424(b)(4) of the Securities Act of 1933, as amended (the “Securities Act”).

| | | |
|---|---|--|
| 1. | Name of Reporting Persons 5AM Co-Investors IV, L.P. | |
| <hr/> | | |
| 2. | Check the Appropriate Box if a Member of a Group (See Instructions) | |
| (a) | <input type="checkbox"/> | |
| (b) | <input checked="" type="checkbox"/> (1) | |
| <hr/> | | |
| 3. | SEC Use Only | |
| <hr/> | | |
| 4. | Source of Funds (See Instructions) WC | |
| <hr/> | | |
| 5. | Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e) <input type="checkbox"/> | |
| <hr/> | | |
| 6. | Citizenship or Place of Organization Delaware, United States | |
| <hr/> | | |
| | 7. Sole Voting Power 0 | |
| <hr/> | | |
| Number of Shares Beneficially Owned by Each Reporting Person With | 8. Shared Voting Power 118,521 shares of common stock (2) | |
| | <hr/> | |
| | 9. Sole Dispositive Power 0 | |
| <hr/> | | |
| | 10. Shared Dispositive Power 118,521 shares of common stock (2) | |
| <hr/> | | |
| 11. | Aggregate Amount Beneficially Owned by Each Reporting Person 118,521 shares of common stock (2) | |
| <hr/> | | |
| 12. | Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) <input type="checkbox"/> | |
| <hr/> | | |
| 13. | Percent of Class Represented by Amount in Row 11 0.6% (3) | |
| <hr/> | | |

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 Co-Investors IV. Diekman, Schwab and Rocklage, as managing members of 5AM Partners IV, share voting and investment authority over the shares held by 5AM Co-Investors IV.
- (3) This calculation is based on 20,228,654 shares of Common Stock, par value \$0.0001 per share, outstanding as of May 28, 2019 upon the closing of the Issuer’s initial public offering, as reported in the Final Prospectus.

1. Name of Reporting Persons
5AM Partners IV, LLC

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
Delaware, United States

7. Sole Voting Power
0

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With

8. Shared Voting Power
2,963,066 shares of common stock (2)

9. Sole Dispositive Power
0

10. Shared Dispositive Power
2,963,066 shares of common stock (2)

11. Aggregate Amount Beneficially Owned by Each Reporting Person
2,963,066 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
14.6% (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) Includes (i) 2,844,545 shares held by 5AM IV; and (ii) 118,521 shares held by 5AM Co-Investors IV. Diekman, Schwab and Rocklage, as managing members of 5AM Partners IV, share voting and investment authority over the shares held by 5AM IV and 5AM Co-Investors IV.
- (3) This calculation is based on 20,228,654 shares of Common Stock, par value \$0.0001 per share, outstanding as of May 28, 2019 upon the closing of the Issuer's initial public offering, as reported in the Final Prospectus.

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, United States

7. Sole Voting Power
0

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With

8. Shared Voting Power
500,000 shares of common stock (2)

9. Sole Dispositive Power
0

10. Shared Dispositive Power
500,000 shares of common stock (2)

11. Aggregate Amount Beneficially Owned by Each Reporting Person
500,000 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
2.5% (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 Kush Parmar, as managing members of 5AM Opportunities GP, share voting and investment authority over the shares held by 5AM Opportunities.
- (3) This calculation is based on 20,228,654 shares of Common Stock, par value \$0.0001 per share, outstanding as of May 28, 2019 upon the closing of the Issuer’s initial public offering, as reported in the Final Prospectus.

1. Name of Reporting Persons
5AM Opportunities I (GP), LLC

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
Delaware, United States

7. Sole Voting Power
0

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With

8. Shared Voting Power
500,000 shares of common stock (2)

9. Sole Dispositive Power
0

10. Shared Dispositive Power
500,000 shares of common stock (2)

11. Aggregate Amount Beneficially Owned by Each Reporting Person
500,000 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
2.5% (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) Includes 500,000 shares held by 5AM Opportunities. Schwab and Kush Parmar, as managing members of 5AM Opportunities GP, share voting and investment authority over the shares held by 5AM Opportunities.
- (3) This calculation is based on 20,228,654 shares of Common Stock, par value \$0.0001 per share, outstanding as of May 28, 2019 upon the closing of the Issuer’s initial public offering, as reported in the Final Prospectus.

1. Name of Reporting Persons
Dr. John D. Diekman

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
Beneficially
Owned by
Each
Reporting
Person With

8. Shared Voting Power
2,963,066 shares of common stock (2)

9. Sole Dispositive Power
0

10. Shared Dispositive Power
2,963,066 shares of common stock (2)

11. Aggregate Amount Beneficially Owned by Each Reporting Person
2,963,066 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
14.6% (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) 2,844,545 shares held by 5AM IV; and (ii) 118,521 shares held by 5AM Co-Investors IV. Diekman, Schwab and Rocklage, as managing members of 5AM Partners IV, share voting and investment authority over the shares held by 5AM IV and 5AM Co-Investors IV.
- (3) This calculation is based on 20,228,654 shares of Common Stock, par value \$0.0001 per share, outstanding as of May 28, 2019 upon the closing of the Issuer’s initial public offering, as reported in the Final Prospectus.

1. Name of Reporting Persons
Andrew J. Schwab

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
Beneficially
Owned by
Each
Reporting
Person With

8. Shared Voting Power
3,463,066 shares of common stock (2)

9. Sole Dispositive Power
0

10. Shared Dispositive Power
3,463,066 shares of common stock (2)

11. Aggregate Amount Beneficially Owned by Each Reporting Person
3,463,066 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
17.1% (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) 2,844,545 shares held by 5AM IV; (ii) 118,521 shares held by 5AM Co-Investors IV; and (iii) 500,000 shares held by 5AM Opportunities. Diekman, Schwab and Rocklage, as managing members of 5AM Partners IV, share voting and investment authority over the shares held by 5AM IV and 5AM Co-Investors IV. Schwab and Kush Parmar, as managing members of 5AM Opportunities GP, share voting and investment authority over the shares held by 5AM Opportunities.
- (3) This calculation is based on 20,228,654 shares of Common Stock, par value \$0.0001 per share, outstanding as of May 28, 2019 upon the closing of the Issuer’s initial public offering, as reported in the Final Prospectus.

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
Beneficially
Owned by
Each
Reporting
Person With

8. Shared Voting Power
2,963,066 shares of common stock (2)

9. Sole Dispositive Power
0

10. Shared Dispositive Power
2,963,066 shares of common stock (2)

11. Aggregate Amount Beneficially Owned by Each Reporting Person
2,963,066 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
14.6% (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) 2,844,545 shares held by 5AM IV; and (ii) 118,521 shares held by 5AM Co-Investors IV. Diekman, Schwab and Rocklage, as managing members of 5AM Partners IV, share voting and investment authority over the shares held by 5AM IV and 5AM Co-Investors IV.
- (3) This calculation is based on 20,228,654 shares of Common Stock, par value \$0.0001 per share, outstanding as of May 28, 2019 upon the closing of the Issuer’s initial public offering, as reported in the Final Prospectus.

Explanatory Note: This 13D relates to shares of Common Stock, \$0.0001 par value per share (“Common Stock”), of IDEAYA Biosciences, Inc., a Delaware corporation (the “Issuer” or “IDEAYA”).

Item 1. Security and Issuer

The class of equity security to which this statement on Schedule 13D relates is the common stock, par value \$0.0001 per share (the “Common Stock”) of IDEAYA Biosciences, Inc., a corporation organized under the laws of the state of Delaware (the “Company”). The address of the principal executive offices of the Company is 7000 Shoreline Court, Suite 350, South San Francisco, California 94080. Information given in response to each item shall be deemed incorporated by reference in all other items, as applicable.

Item 2. Identity and Background

This Schedule 13D is filed by 5AM Partners IV, LLC (“5AM Partners IV”), 5AM Ventures IV, L.P. (“5AM IV”), 5AM Co-Investors IV, L.P. (“5AM Co-Investors IV”), 5AM Opportunities I, L.P. (“5AM Opportunities”), 5AM Opportunities I (GP), LLC (“5AM Opportunities GP”), Dr. John D. Diekman (“Diekman”), Andrew J. Schwab (“Schwab”) and Dr. Scott M. Rocklage (“Rocklage”) and, with 5AM Partners IV, 5AM IV, Co-Investors IV, 5AM Opportunities, 5AM Opportunities GP, Diekman and Schwab, collectively, the “Reporting Persons”). The Reporting Persons expressly disclaim status as a “group” for purposes of this Schedule 13D.

The principal business and principal business office of the Reporting Persons is 5AM Ventures IV, L.P., 501 2nd Street, Suite 350, San Francisco, CA 94107.

(c) The principal business of the Reporting Persons is venture capital investments. Each of the individuals serves as a managing member of 5AM Partners IV, which is the general partner of 5AM IV and 5AM Co-Investors IV. Schwab serves as a managing member of 5AM Opportunities GP, which is the general partner of 5AM Opportunities.

(d) During the last five years, none of the Reporting Persons has been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).

(e) During the last five years, none of the Reporting Persons was a party to a civil proceeding of a judicial or administrative body of competent jurisdiction or were subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

(f) Each of 5AM Partners IV, 5AM IV, 5AM Co-Investors IV, 5AM Opportunities and 5AM Opportunities GP are incorporated in the state of Delaware and each of the individuals is a citizen of the United States.

Item 3. Source and Amount of Funds or Other Consideration

5AM IV and 5AM Co-Investors IV acquired 17,660,481 shares and 735,850 shares of the Issuer’s Series A Preferred Stock, respectively, for aggregate purchase prices of \$13,039,113 and \$543,296, respectively, at various times between March 2016 and January 2018. Such shares of Series A Preferred Stock automatically converted to 1,721,898 shares and 71,745 shares of Common Stock, respectively, upon the closing of the Issuer’s initial public offering without payment of consideration. 5AM IV and 5AM Co-Investors IV acquired 5,932,792 shares and 247,199 shares of the Issuer’s Series B Preferred Stock, respectively, for aggregate purchase prices of \$7,679,999 and \$319,999, respectively, in January 2018. Such shares of Series B Preferred Stock automatically converted to 578,447 shares and 24,101 shares of Common Stock, respectively, upon the closing of the Issuer’s initial public offering without payment of consideration. On May 28, 2019, 5AM IV, 5AM Co-Investors and 5AM Opportunities acquired 240,000 shares, 10,000 shares and 500,000 shares of Common Stock, respectively, in the Issuer’s initial public offering (the “IPO”) at the price of \$10.00 per share.

The source of funds for the purchases of the Issuer's securities was working capital of 5AM IV, 5AM Co-Investors IV and 5AM Opportunities.

Item 4. Purpose of Transaction

The Reporting Persons purchased the aforementioned securities for investment purposes with the aim of increasing the value of their investments and the Issuer. Subject to applicable legal requirements, one or more of the Reporting Persons may purchase additional securities of the Issuer from time to time in open market or private transactions, depending on its evaluation of the Issuer's business, prospects and financial condition, the market for the Issuer's securities, other developments concerning the Issuer, the reaction of the Issuer to the Reporting Persons' ownership of the Issuer's securities, other opportunities available to the Reporting Persons, and general economic, money market and stock market conditions. In addition, depending upon the factors referred to above, the Reporting Persons may dispose of all or a portion of their securities of the Issuer at any time. Each of the Reporting Persons reserve the right to increase or decrease its holdings on such terms and at such times as each may decide.

Diekman is a member of the Board of Directors of the Issuer and is also a managing member of 5AM Partners IV.

Except as set forth in this Item 4 and Item 6 below, none of the Reporting Persons have a present plan or proposal that relates to or would result in any of the actions specified in clauses (a) through (j) of Item 4 of Schedule 13D of the Act. However, each of the Reporting Persons reserves the right to propose or participate in future transactions which may result in one or more of such actions, including but not limited to, an extraordinary corporate transaction, such as a merger, reorganization or liquidation, sale of a material amount of assets of the Issuer or its subsidiaries, or other transactions which might have the effect of causing the Common Stock to become eligible for termination of registration under Section 12(g) of the Securities Exchange Act of 1934 (the "Act"). The Reporting Persons also retain the right to change their investment intent at any time, to acquire additional shares of Common Stock or other securities of the Issuer from time to time, or to sell or otherwise dispose of all or part of the Common Stock beneficially owned by them (or any shares of Common Stock into which such securities are converted) in any manner permitted by law. The Reporting Persons may engage from time to time in ordinary course transactions with financial institutions with respect to the securities described herein.

Item 5. Interest in Securities of the Issuer

(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 May 28, 2019:

| 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) |
|--------------------------|----------------------|-------------------|------------------------|------------------------|------------------------------|----------------------|-------------------------|
| 5AM IV | 2,844,545 | 0 | 2,844,545 | 0 | 2,844,545 | 2,844,545 | 14.1% |
| 5AM Co-Investors IV | 118,521 | 0 | 118,521 | 0 | 118,521 | 118,521 | 0.6% |
| 5AM Partners IV (1) | 0 | 0 | 2,963,066 | 0 | 2,963,066 | 2,963,066 | 14.6% |
| 5AM Opportunities | 500,000 | 0 | 500,000 | 0 | 500,000 | 500,000 | 2.5% |
| 5AM Opportunities GP (2) | 0 | 0 | 500,000 | 0 | 500,000 | 500,000 | 2.5% |
| Diekman (1) | 0 | 0 | 2,963,066 | 0 | 2,963,066 | 2,963,066 | 14.6% |
| Schwab (1) (2) | 0 | 0 | 3,463,066 | 0 | 3,463,066 | 3,463,066 | 17.1% |
| Rocklage (1) | 0 | 0 | 2,963,066 | 0 | 2,963,066 | 2,963,066 | 14.6% |

(1) Includes 2,844,545 shares of Common Stock held by 5AM IV and 118,521 shares of Common Stock held by 5AM Co-Investors IV. Diekman, Schwab and Rocklage, as managing members of 5AM Partners IV, share voting and investment authority over the shares held by 5AM IV and 5AM Co-Investors IV.

(2) Includes 500,000 shares of Common Stock held by 5AM Opportunities. Schwab and Parmar, as managing members of 5AM Opportunities GP, share voting and investment authority over the shares held by 5AM Opportunities.

(3) This calculation is based on 20,228,654 shares of Common Stock, par value \$0.0001 per share, outstanding as of May 28, 2019 upon the closing of the Issuer's initial public offering, as reported in the Issuer's prospectus dated May 24, 2019 (the "Final Prospectus") filed with the Securities and Exchange Commission (the "SEC") pursuant to Rule 424(b)(4) of the Securities Act of 1933, as amended (the "Securities Act").

(c) Except as set forth herein, none of the Reporting Persons has effected any transactions in shares of the Issuer's Common Stock during the last 60 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.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer**Investor Rights Agreement**

Certain of the Reporting Persons and certain other stockholders of the Issuer entered into an Amended and Restated Investor Rights Agreement dated January 31, 2018 (the "**Investor Rights Agreement**"), with the Issuer. Under the Investor Rights Agreement, holders of registrable securities ("**Holders**"), including certain of the Reporting Persons, can demand that the Issuer file a registration statement or request that their registrable shares (the "**Registrable Securities**") be included on a registration statement that the Issuer is otherwise filing, in either case, registering the resale of their shares of Common Stock. These registration rights are subject to conditions and limitations, including the right, in certain circumstances, of the underwriters of an offering to limit the number of shares included in such registration.

Demand Registration Rights

At any time beginning after November 24, 2019, upon the written request of the Holders representing at least 65% of the Registrable Securities, the Issuer is obligated to register the sale of all registrable securities that the holders may request in writing to be registered if the anticipated aggregate offering price would exceed \$10 million. The Issuer is required to effect no more than two registration statements that are declared or ordered effective.

Piggyback Registration Rights

If the Issuer registers any of its securities for public sale, either for its own account or for the account of other security holders, it will also have to register all registrable securities that the Holders of such securities request in writing be registered. This piggyback registration right does not apply to a registration relating to any of the Issuer's stock plans or a registration related to stock issued upon conversion of debt securities. In an underwritten offering, the managing underwriter, if any, has the right, subject to specified conditions, to limit the number of shares such Holders may include.

Form S-3 Registration Rights

The Holders representing at least 65% of the Registrable Securities can request that the Issuer register all or a portion of their shares on Form S-3 if it is eligible to file a registration statement on Form S-3 and if the aggregate price to the public of the shares offered is at least \$5 million (net of certain expenses related to the sale of the shares). The Issuer is required to effect no more than two Form S-3 registration statements that are declared or ordered effective in any 12-month period.

Expenses of Registration

The Issuer will pay the registration expenses (other than underwriting discounts, selling commissions and stock transfer taxes) of the shares registered pursuant to the demand, piggyback and Form S-3 registrations described above.

Expiration of Registration Rights

The demand, piggyback and Form S-3 registration rights described above will expire upon the earlier of (i) three years after the consummation of the IPO, (ii) when the Reporting Persons can sell all of their shares under Rule 144 of the Securities Act during any 90-day period, or (iii) upon the consummation of an acquisition.

Lock-Up Agreements

Each of the Reporting Persons, along with all of the Issuer's directors and officers and the other holders of substantially all of the Issuer's Common Stock and securities convertible into or exercisable or exchangeable for the Issuer's Common Stock outstanding immediately upon the closing of the IPO have agreed with JP Morgan Securities LLC, Citigroup Global Markets Inc. and Jefferies LLC that, for a period ending on and including November 20, 2018, subject to certain exceptions, they will not, directly or indirectly, dispose of any of the Issuer's Common Stock or securities convertible into or exercisable or exchangeable for Common Stock (but not including the shares of Common Stock purchased in the IPO), except with the prior written consent of JP Morgan Securities LLC, Citigroup Global Markets Inc. and Jefferies LLC, in their sole discretion, with or without notice, on behalf of the underwriters.

Other than as described in this Schedule 13D, to the knowledge of the Reporting Persons, there are no other contracts, arrangements, understandings or relationships (legal or otherwise) among the persons named in Item 2 and between such persons and any person with respect to any securities of the Issuer.

The foregoing description of the terms of the Investor Rights Agreement and the lock-up agreement is not complete and is qualified in its entirety by reference to the text of the Investor Rights Agreement and form of lock-up agreement, which are filed herewith as Exhibits B and C, respectively, and incorporated herein by reference.

Other than as described in this Item 6, to the knowledge of the Reporting Persons, there are no contracts, arrangements, understandings or relationships (legal or otherwise) between the Reporting Persons and any person with respect to any securities of the Issuer, including, but not limited to, the transfer or voting of any of the securities, finder's fees, joint ventures, loan or option arrangements, puts or calls, guarantees of profits, division of profits or loss, or the giving or withholding of proxies or any pledge or contingency, the occurrence of which would give another person voting or investment power of the securities of the Issuer.

Item 7. Materials to be Filed as Exhibits.

- A. Joint Filing Agreement as required by Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended
- B. Form of Lock-up Agreement (incorporated by reference to Exhibit C to Exhibit 1.1 to the Issuer's Registration Statement on Form S-1/A (Registration No. 333-231081, filed May 13, 2019).
- C. Amended and Restated Investors' Rights Agreement (incorporated by reference to Exhibit 10.3 to the Issuer's Registration Statement on Form S-1 (Registration No. 333-231081), filed April 26, 2019).

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: June 10, 2019

5AM Ventures IV, L.P.

By: 5AM Partners IV, LLC,
Its General Partner

By: /s/ Andrew J. Schwab
Andrew J. Schwab
Managing Member

5AM Co-Investors IV, L.P.

By: 5AM Partners IV, LLC,
Its General Partner

By: /s/ Andrew J. Schwab
Andrew J. Schwab
Managing Member

5AM Partners IV, LLC

By: /s/ Andrew J. Schwab
Andrew J. Schwab
Managing Member

5AM Opportunities I, L.P.

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

By: /s/ Andrew J. Schwab
Andrew J. Schwab
Managing Member

5AM Opportunities I (GP), LLC

By: /s/ Andrew J. Schwab
Andrew J. Schwab
Managing Member

DR. JOHN D. DIEKMAN

By: /s/ Dr. John D. Diekman
Dr. John D. Diekman

ANDREW J. SCHWAB

By: /s/ Andrew J. Schwab
Andrew J. Schwab

DR. SCOTT M. ROCKLAGE

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

Exhibit 1

Joint Filing Agreement

The undersigned hereby agree that a single Schedule 13D (or any amendment thereto) relating to the Common Stock of IDEAYA Biosciences, Inc. shall be filed on behalf of each of the undersigned and that this Agreement shall be filed as an exhibit to such Schedule 13D.

Date: June 10, 2019

5AM Ventures IV, L.P.

By: 5AM Partners IV, LLC,
Its General Partner

By: /s/ Andrew J. Schwab
Andrew J. Schwab
Managing Member

5AM Co-Investors IV, L.P.

By: 5AM Partners IV, LLC,
Its General Partner

By: /s/ Andrew J. Schwab
Andrew J. Schwab
Managing Member

5AM Partners IV, LLC

By: /s/ Andrew J. Schwab
Andrew J. Schwab
Managing Member

5AM Opportunities I, L.P.

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

By: /s/ Andrew J. Schwab
Andrew J. Schwab
Managing Member

5AM Opportunities I (GP), LLC

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By: /s/ Dr. John D. Diekman
Dr. John D. Diekman

ANDREW J. SCHWAB

By: /s/ Andrew J. Schwab
Andrew J. Schwab

DR. SCOTT M. ROCKLAGE

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