

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

SCHEDULE 13G  
(Rule 13d-102)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO RULES 13d-1 (b),  
(c) AND (d) AND AMENDMENTS THERETO FILED PURSUANT TO 13d-2 (b)  
(Amendment No. 2)\*

**Audentes Therapeutics, Inc.**

(Name of Issuer)

**Common Stock, par value \$0.00001 per share**

(Title of Class of Securities)

**05070R104**

(CUSIP Number)

**December 31, 2018**

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)  
 Rule 13d-1(c)  
 Rule 13d-1(d)

\*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 (however, see the Notes).

1	Names of Reporting Persons. 5AM Ventures III, L.P.
2	Check the Appropriate Box if a Member of a Group* (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/> (1)
3	SEC Use Only
4	Citizenship or Place of Organization Delaware, United States of America
	5 Sole Voting Power 0 shares
Number of Shares Beneficially Owned by Each Reporting Person With	6 Shared Voting Power 1,476,492 shares (2)
	7 Sole Dispositive Power 0 shares
	8 Shared Dispositive Power 1,476,492 shares (2)
9	Aggregate Amount Beneficially Owned by Each Reporting Person 1,476,492 shares (2)
10	Check Box if the Aggregate Amount in Row (9) Excludes Certain Shares* <input type="checkbox"/>
11	Percent of Class Represented by Amount in Row 9 3.5% (3)
12	Type of Reporting Person* PN

- (1) This Schedule 13G is filed by 5AM Ventures III, L.P., a Delaware limited partnership ("Ventures III"), 5AM Co-Investors III, L.P., a Delaware limited partnership ("Co-Investors III"), 5AM Partners III, LLC, a Delaware limited liability company ("Partners III"), Dr. John Diekman ("Diekman"), Andrew Schwab ("Schwab"), and Dr. Scott Rocklage ("Rocklage" and together with Ventures III, Co-Investors III, Partners III, Diekman and Schwab, collectively, the "Reporting Persons"). The Reporting Persons expressly disclaim status as a "group" for purposes of this Schedule 13G.
- (2) Partners III serves as the sole general partner of Ventures III. Diekman, Schwab and Rocklage are managing members of Partners III and share voting and dispositive power over the shares held by Ventures III; however, they disclaim beneficial ownership of the shares held by Ventures III except to the extent of their pecuniary interests therein. The information with respect to the ownership of the Common Stock by the Reporting Persons filing this statement on Schedule 13G is provided as of December 31, 2018.
- (3) This percentage is calculated based upon 42,689,894 shares of Common Stock outstanding as of October 31, 2018 as indicated in the Issuer's Form 10-Q filed on November 7, 2018.

1 Names of Reporting Persons.  
5AM Co-Investors III, L.P.

2 Check the Appropriate Box if a Member of a Group\*  
 (a)   
 (b)  (1)

3 SEC Use Only

4 Citizenship or Place of Organization  
Delaware, United States of America

Number of Shares Beneficially Owned by Each Reporting Person With	5	Sole Voting Power 0 shares
	6	Shared Voting Power 38,052 shares (2)
	7	Sole Dispositive Power 0 shares
	8	Shared Dispositive Power 38,052 shares (2)

9 Aggregate Amount Beneficially Owned by Each Reporting Person  
38,052 shares of Common Stock (2)

10 Check Box if the Aggregate Amount in Row (9) Excludes Certain Shares\*

11 Percent of Class Represented by Amount in Row 9  
0.1% (3)

12 Type of Reporting Person\*  
PN

(1) This Schedule 13G is filed by the Reporting Persons. The Reporting Persons expressly disclaim status as a “group” for purposes of this Schedule 13G.  
 (2) Partners III serves as the sole general partner of Co-Investors III. Diekman, Schwab and Rocklage are managing members of Partners III and share voting and dispositive power over the shares held by Co-Investors III; however, they disclaim beneficial ownership of the shares held by Co-Investors III except to the extent of their pecuniary interests therein. The information with respect to the ownership of the Common Stock by the Reporting Persons filing this statement on Schedule 13G is provided as of December 31, 2018.  
 (3) This percentage is calculated based upon 42,689,894 shares of Common Stock outstanding as of October 31, 2018 as indicated in the Issuer’s Form 10-Q filed on November 7, 2018.

1 Names of Reporting Persons.  
5AM Partners III, LLC

2 Check the Appropriate Box if a Member of a Group\*

(a)

(b)  (1)

3 SEC Use Only

4 Citizenship or Place of Organization  
Delaware, United States of America

5 Sole Voting Power  
0 shares

Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With

6 Shared Voting Power  
1,514,544 shares (2)

7 Sole Dispositive Power  
0 shares

8 Shared Dispositive Power  
1,514,544 shares (2)

9 Aggregate Amount Beneficially Owned by Each Reporting Person  
1,514,544 shares (2)

10 Check Box if the Aggregate Amount in Row (9) Excludes Certain Shares\*

11 Percent of Class Represented by Amount in Row 9  
3.5% (3)

12 Type of Reporting Person\*  
OO

- (1) This Schedule 13G is filed by the Reporting Persons. The Reporting Persons expressly disclaim status as a “group” for purposes of this Schedule 13G.
- (2) Includes 1,476,492 shares of Common Stock held by Ventures III and 38,052 shares of Common Stock held by Co-Investors III. Partners III serves as the sole general partner of Ventures III and Co-Investors III. Diekman, Schwab and Rocklage are managing members of Partners III and share voting and dispositive power over the shares held by Ventures III and Co-Investors III; however, they disclaim beneficial ownership of the shares held by such entities except to the extent of their pecuniary interests therein. The information with respect to the ownership of the Common Stock by the Reporting Persons filing this statement on Schedule 13G is provided as of December 31, 2018.
- (3) This percentage is calculated based upon 42,689,894 shares of Common Stock outstanding as of October 31, 2018 as indicated in the Issuer’s Form 10-Q filed on November 7, 2018.

1 Names of Reporting Persons.  
Dr. John Diekman

2 Check the Appropriate Box if a Member of a Group\*

(a)

(b)  (1)

3 SEC Use Only

4 Citizenship or Place of Organization  
United States of America

5 Sole Voting Power  
0 shares

Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With

6 Shared Voting Power  
1,514,544 shares (2)

7 Sole Dispositive Power  
0 shares

8 Shared Dispositive Power  
1,514,544 shares (2)

9 Aggregate Amount Beneficially Owned by Each Reporting Person  
1,514,544 shares (2)

10 Check Box if the Aggregate Amount in Row (9) Excludes Certain Shares\*

11 Percent of Class Represented by Amount in Row 9  
3.5% (3)

12 Type of Reporting Person\*  
IN

- (1) This Schedule 13G is filed by the Reporting Persons. The Reporting Persons expressly disclaim status as a “group” for purposes of this Schedule 13G.
- (2) Includes 1,476,492 shares of Common Stock held by Ventures III and 38,052 shares of Common Stock held by Co-Investors III. Partners III serves as the sole general partner of Ventures III and Co-Investors III. Diekman, Schwab and Rocklage are managing members of Partners III and share voting and dispositive power over the shares held by Ventures III and Co-Investors III; however, they disclaim beneficial ownership of the shares held by such entities except to the extent of their pecuniary interests therein. The information with respect to the ownership of the Common Stock by the Reporting Persons filing this statement on Schedule 13G is provided as of December 31, 2018.
- (3) This percentage is calculated based upon 42,689,894 shares of Common Stock outstanding as of October 31, 2018 as indicated in the Issuer’s Form 10-Q filed on November 7, 2018.

1	Names of Reporting Persons.	Andrew Schwab
<hr/>		
2	Check the Appropriate Box if a Member of a Group*	
(a)	<input type="checkbox"/>	
(b)	<input checked="" type="checkbox"/> (1)	
<hr/>		
3	SEC Use Only	
<hr/>		
4	Citizenship or Place of Organization	United States of America
<hr/>		
	5	Sole Voting Power 0 shares
<hr/>		
Number of Shares Beneficially Owned by Each Reporting Person With	6	Shared Voting Power 1,514,544 shares (2)
	<hr/>	
	7	Sole Dispositive Power 0 shares
<hr/>		
	8	Shared Dispositive Power 1,514,544 shares (2)
<hr/>		
9	Aggregate Amount Beneficially Owned by Each Reporting Person	1,514,544 shares (2)
<hr/>		
10	Check Box if the Aggregate Amount in Row (9) Excludes Certain Shares*	<input type="checkbox"/>
<hr/>		
11	Percent of Class Represented by Amount in Row 9	3.5% (3)
<hr/>		
12	Type of Reporting Person*	IN
<hr/>		

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

(2) Includes 1,476,492 shares of Common Stock held by Ventures III and 38,052 shares of Common Stock held by Co-Investors III. Partners III serves as the sole general partner of Ventures III and Co-Investors III. Diekman, Schwab and Rocklage are managing members of Partners III and share voting and dispositive power over the shares held by Ventures III and Co-Investors III; however, they disclaim beneficial ownership of the shares held by such entities except to the extent of their pecuniary interests therein. The information with respect to the ownership of the Common Stock by the Reporting Persons filing this statement on Schedule 13G is provided as of December 31, 2018.

(3) This percentage is calculated based upon 42,689,894 shares of Common Stock outstanding as of October 31, 2018 as indicated in the Issuer’s Form 10-Q filed on November 7, 2018.

1 Names of Reporting Persons.  
Dr. Scott Rocklage

2 Check the Appropriate Box if a Member of a Group\*

(a)

(b)  (1)

3 SEC Use Only

4 Citizenship or Place of Organization  
United States of America

5 Sole Voting Power  
0 shares

Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With

6 Shared Voting Power  
1,514,544 shares (2)

7 Sole Dispositive Power  
0 shares

8 Shared Dispositive Power  
1,514,544 shares (2)

9 Aggregate Amount Beneficially Owned by Each Reporting Person  
1,514,544 shares (2)

10 Check Box if the Aggregate Amount in Row (9) Excludes Certain Shares\*

11 Percent of Class Represented by Amount in Row 9  
3.5% (3)

12 Type of Reporting Person\*  
IN

- (1) This Schedule 13G is filed by the Reporting Persons. The Reporting Persons expressly disclaim status as a “group” for purposes of this Schedule 13G.
- (2) Includes 1,476,492 shares of Common Stock held by Ventures III and 38,052 shares of Common Stock held by Co-Investors III. Partners III serves as the sole general partner of Ventures III and Co-Investors III. Diekman, Schwab and Rocklage are managing members of Partners III and share voting and dispositive power over the shares held by Ventures III and Co-Investors III; however, they disclaim beneficial ownership of the shares held by such entities except to the extent of their pecuniary interests therein. The information with respect to the ownership of the Common Stock by the Reporting Persons filing this statement on Schedule 13G is provided as of December 31, 2018.
- (3) This percentage is calculated based upon 42,689,894 shares of Common Stock outstanding as of October 31, 2018 as indicated in the Issuer’s Form 10-Q filed on November 7, 2018.

Introductory Note: This Statement on Schedule 13G (this "Statement") is filed on behalf of the Reporting Persons, in respect of shares of Common Stock, par value \$0.00001 per share ("Common Stock"), of Audentes Therapeutics, Inc. (the "Issuer").

**Item 1**

- (a) Name of Issuer:  
Audentes Therapeutics, Inc.
- 
- Address of Issuer's Principal Executive Offices:  
600 California Street, 17<sup>th</sup> Floor  
San Francisco, CA 94108
- 

**Item 2**

- (a) Name of Person(s) Filing:  
5AM Ventures III, L.P. ("Ventures III")  
5AM Co-Investors III, L.P. ("Co-Investors III")  
5AM Partners III, LLC ("Partners III")  
Dr. John Diekman ("Diekman")  
Andrew Schwab ("Schwab")  
Dr. Scott Rocklage ("Rocklage")
- 
- (b) Address of Principal Business Office:  
c/o 5AM Ventures  
501 2<sup>nd</sup> Street, Suite 350  
San Francisco, CA 94107
- 
- (c) Citizenship:
- |              |                            |   |                          |
|--------------|----------------------------|---|--------------------------|
| Entities:    | 5AM Ventures III, L.P.     | - | Delaware                 |
|              | 5AM Co-Investors III, L.P. | - | Delaware                 |
|              | 5AM Partners III, LLC      | - | Delaware                 |
| Individuals: | Diekman                    | - | United States of America |
|              | Schwab                     | - | United States of America |
|              | Rocklage                   | - | United States of America |
- 
- (d) Title of Class of Securities:  
Common Stock
- 
- (e) CUSIP Number:  
05070R104
- 

**Item 3** Not applicable.



**Item 4 Ownership.**

The following information with respect to the ownership of the Common Stock by the Reporting Persons filing this statement on Schedule 13G is provided as of December 31, 2018:

Reporting Persons	Shares Held Directly	Sole Voting Power	Shared Voting Power	Sole Dispositive Power	Shared Dispositive Power	Beneficial Ownership	Percentage of Class (4)
Ventures III (1) (3)	1,476,492	—	1,476,492	—	1,476,492	1,476,492	3.5%
Co-Investors III (2) (3)	38,052	—	38,052	—	38,052	38,052	0.1%
Partners III (1) (2) (3)	—	—	1,514,544	—	1,514,544	1,514,544	3.5%
Diekman (1) (2) (3)	—	—	1,514,544	—	1,514,544	1,514,544	3.5%
Schwab (1) (2) (3)	—	—	1,514,544	—	1,514,544	1,514,544	3.5%
Rocklage (1) (2) (3)	—	—	1,514,544	—	1,514,544	1,514,544	3.5%

(1) Includes 1,476,492 shares of Common Stock held by Ventures III.

(2) Includes 38,052 shares of Common Stock held by Co-Investors III.

(3) Partners III serves as the sole general partner of Ventures III and Co-Investors III. Diekman, Schwab and Rocklage are managing members of Partners III and share voting and dispositive power over the shares held by Ventures III and Co-Investors III; however, they disclaim beneficial ownership of the shares held by such entities except to the extent of their pecuniary interests therein.

(4) This percentage is calculated based upon 42,689,894 shares of Common Stock outstanding as of October 31, 2018 as indicated in the Issuer's Form 10-Q filed on November 7, 2018.

**Item 5 Ownership of Five Percent or Less of a Class.**

If this statement is being filed to report the fact that as of the date hereof, the reporting persons have ceased to be the beneficial owner of more than five percent of the class of securities, check the following:

**Item 6 Ownership of More Than Five Percent on Behalf of Another Person.**

Not applicable.

**Item 7 Identification and Classification of the Subsidiary which Acquired the Security Being Reported on by the Parent Holding Company.**

Not applicable.

**Item 8 Identification and Classification of Members of the Group.**

Not applicable.

**Item 9 Notice of Dissolution of Group.**

Not applicable.

**Item 10 Certification.**  
Not applicable.

SIGNATURE

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.

Dated: February 13, 2019

5AM Ventures III, L.P.

By: 5AM Partners III, LLC  
its General Partner

By: /s/ Andrew Schwab  
Name: Andrew Schwab  
Title: Managing Member

5AM Co-Investors III, L.P.

By: 5AM Partners III, LLC  
its General Partner

By: /s/ Andrew Schwab  
Name: Andrew Schwab  
Title: Managing Member

5AM Partners III, LLC

By: /s/ Andrew Schwab  
Name: Andrew Schwab  
Title: Managing Member

/s/ Dr. John Diekman  
Dr. John Diekman

/s/ Andrew Schwab  
Andrew Schwab

/s/ Dr. Scott Rocklage  
Dr. Scott Rocklage

**Exhibit(s):**

A - Joint Filing Statement

EXHIBIT A

JOINT FILING STATEMENT

We, the undersigned, hereby express our agreement that the attached Schedule 13G (or any amendments thereto) relating to the Common Stock of Audentes Therapeutics, Inc. is filed on behalf of each of us.

Dated: February 13, 2019

5AM Ventures III, L.P.

5AM Co-Investors III, L.P.

By: 5AM Partners III, LLC  
its General Partner

By: 5AM Partners III, LLC  
its General Partner

By: /s/ Andrew Schwab  
Name: Andrew Schwab  
Title: Managing Member

By: /s/ Andrew Schwab  
Name: Andrew Schwab  
Title: Managing Member

5AM Partners III, LLC

By: /s/ Andrew Schwab  
Name: Andrew Schwab  
Title: Managing Member

/s/ Dr. John Diekman  
Dr. John Diekman

/s/ Andrew Schwab  
Andrew Schwab

/s/ Dr. Scott Rocklage  
Dr. Scott Rocklage

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