

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

SCHEDULE 13D/A

Under the Securities Exchange Act of 1934
(Amendment No. 3)*

Leap Therapeutics, Inc.

(Name of Issuer)

Common Stock, \$0.001 par value per share

(Title of Class of Securities)

52187K101

(CUSIP Number)

Douglas E. Onsi
47 Thorndike Street, Suite B1-1
Cambridge, Massachusetts 02141
Tel. No.: 617-252-4343

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

February 5, 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.

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7 for other parties to whom copies are to be sent.

* 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.
HealthCare Ventures IX, L.P.

2 Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3 SEC Use Only

4 Source of Funds (See Instructions):
OO

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

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
4,716,232 (See Item 5)

9 Sole Dispositive Power
0

10 Shared Dispositive Power
4,716,232 (See Item 5)

11 Aggregate Amount Beneficially Owned by Each Reporting Person
4,716,232 (See Item 5)

12 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13 Percent of Class Represented by Amount in Row (11)
20.7% (1) (See Item 5)

14 Type of Reporting Person (See Instructions)
PN

(1) Calculation is based upon (i) 14,703,159 shares of Common Stock outstanding as of November 6, 2018, as reported by the Issuer on its Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, as filed with the Securities and Exchange Commission on November 9, 2018, (ii) 7,557,142 total shares of Common Stock issued and sold on February 5, 2019 by the Issuer in a public offering as reported on the Issuer's Current Report on Form 8-K, as filed with the Securities and Exchange Commission on February 5, 2019, and (iii) 571,428 shares of Common Stock that the Reporting Person may acquire within 60 days after the date of this filing upon the exercise of warrants.

1 Names of Reporting Persons.
HealthCare Partners IX, L.P.

2 Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3 SEC Use Only

4 Source of Funds (See Instructions):
OO

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

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
4,716,232 (See Item 5)

9 Sole Dispositive Power
0

10 Shared Dispositive Power
4,716,232 (See Item 5)

11 Aggregate Amount Beneficially Owned by Each Reporting Person
4,716,232 (See Item 5)

12 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13 Percent of Class Represented by Amount in Row (11)
20.7% (1) (See Item 5)

14 Type of Reporting Person (See Instructions)
PN, HC

(1) Calculation is based upon (i) 14,703,159 shares of Common Stock outstanding as of November 6, 2018, as reported by the Issuer on its Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, as filed with the Securities and Exchange Commission on November 9, 2018, (ii) 7,557,142 total shares of Common Stock issued and sold on February 5, 2019 by the Issuer in a public offering as reported on the Issuer's Current Report on Form 8-K, as filed with the Securities and Exchange Commission on February 5, 2019, and (iii) 571,428 shares of Common Stock that Healthcare Ventures IX, L.P. may acquire within 60 days after the date of this filing upon the exercise of warrants.

1 Names of Reporting Persons.
HealthCare Partners IX, LLC

2 Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3 SEC Use Only

4 Source of Funds (See Instructions):
OO

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

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
4,716,232 (See Item 5)

9 Sole Dispositive Power
0

10 Shared Dispositive Power
4,716,232 (See Item 5)

11 Aggregate Amount Beneficially Owned by Each Reporting Person
4,716,232 (See Item 5)

12 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13 Percent of Class Represented by Amount in Row (11)
20.7% (1) (See Item 5)

14 Type of Reporting Person (See Instructions)
OO, HC

(1) Calculation is based upon (i) 14,703,159 shares of Common Stock outstanding as of November 6, 2018, as reported by the Issuer on its Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, as filed with the Securities and Exchange Commission on November 9, 2018, (ii) 7,557,142 total shares of Common Stock issued and sold on February 5, 2019 by the Issuer in a public offering as reported on the Issuer's Current Report on Form 8-K, as filed with the Securities and Exchange Commission on February 5, 2019, and (iii) 571,428 shares of Common Stock that Healthcare Ventures IX, L.P. may acquire within 60 days after the date of this filing upon the exercise of warrants.

1 Names of Reporting Persons.
HealthCare Ventures VIII, L.P.

2 Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3 SEC Use Only

4 Source of Funds (See Instructions):
OO

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

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
2,618,406 (See Item 5)

9 Sole Dispositive Power
0

10 Shared Dispositive Power
2,618,406 (See Item 5)

11 Aggregate Amount Beneficially Owned by Each Reporting Person
2,618,406 (See Item 5)

12 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13 Percent of Class Represented by Amount in Row (11)
11.8% (1) (See Item 5)

14 Type of Reporting Person (See Instructions)
PN

(1) Calculation is based upon (i) 14,703,159 shares of Common Stock outstanding as of November 6, 2018, as reported by the Issuer on its Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, as filed with the Securities and Exchange Commission on November 9, 2018, and (ii) 7,557,142 total shares of Common Stock issued and sold on February 5, 2019 by the Issuer in a public offering as reported on the Issuer's Current Report on Form 8-K, as filed with the Securities and Exchange Commission on February 5, 2019.

1 Names of Reporting Persons.
HealthCare Partners VIII, L.P.

2 Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3 SEC Use Only

4 Source of Funds (See Instructions):
OO

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

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
2,618,406 (See Item 5)

9 Sole Dispositive Power
0

10 Shared Dispositive Power
2,618,406 (See Item 5)

11 Aggregate Amount Beneficially Owned by Each Reporting Person
2,618,406 (See Item 5)

12 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13 Percent of Class Represented by Amount in Row (11)
11.8% (1) (See Item 5)

14 Type of Reporting Person (See Instructions)
PN, HC

(1) Calculation is based upon (i) 14,703,159 shares of Common Stock outstanding as of November 6, 2018, as reported by the Issuer on its Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, as filed with the Securities and Exchange Commission on November 9, 2018, and (ii) 7,557,142 total shares of Common Stock issued and sold on February 5, 2019 by the Issuer in a public offering as reported on the Issuer's Current Report on Form 8-K, as filed with the Securities and Exchange Commission on February 5, 2019.

1 Names of Reporting Persons.
HealthCare Partners VIII, LLC

2 Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3 SEC Use Only

4 Source of Funds (See Instructions):
OO

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

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
2,618,406 (See Item 5)

9 Sole Dispositive Power
0

10 Shared Dispositive Power
2,618,406 (See Item 5)

11 Aggregate Amount Beneficially Owned by Each Reporting Person
2,618,406 (See Item 5)

12 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13 Percent of Class Represented by Amount in Row (11)
11.8% (1) (See Item 5)

14 Type of Reporting Person (See Instructions)
PN, HC

(1) Calculation is based upon (i) 14,703,159 shares of Common Stock outstanding as of November 6, 2018, as reported by the Issuer on its Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, as filed with the Securities and Exchange Commission on November 9, 2018, and (ii) 7,557,142 total shares of Common Stock issued and sold on February 5, 2019 by the Issuer in a public offering as reported on the Issuer's Current Report on Form 8-K, as filed with the Securities and Exchange Commission on February 5, 2019.

1 Names of Reporting Persons.
HealthCare Ventures Strategic Fund, L.P.

2 Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3 SEC Use Only

4 Source of Funds (See Instructions):
OO

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

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
343,889 (See Item 5)

9 Sole Dispositive Power
0

10 Shared Dispositive Power
343,889 (See Item 5)

11 Aggregate Amount Beneficially Owned by Each Reporting Person
343,889 (See Item 5)

12 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13 Percent of Class Represented by Amount in Row (11)
1.5% (1) (See Item 5)

14 Type of Reporting Person (See Instructions)
PN

(1) Calculation is based upon (i) 14,703,159 shares of Common Stock outstanding as of November 6, 2018, as reported by the Issuer on its Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, as filed with the Securities and Exchange Commission on November 9, 2018, and (ii) 7,557,142 total shares of Common Stock issued and sold on February 5, 2019 by the Issuer in a public offering as reported on the Issuer's Current Report on Form 8-K, as filed with the Securities and Exchange Commission on February 5, 2019.

1 Names of Reporting Persons.
HealthCare Strategic Partners, LLC

2 Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3 SEC Use Only

4 Source of Funds (See Instructions):
OO

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

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
343,889 (See Item 5)

9 Sole Dispositive Power
0

10 Shared Dispositive Power
343,889 (See Item 5)

11 Aggregate Amount Beneficially Owned by Each Reporting Person
343,889 (See Item 5)

12 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13 Percent of Class Represented by Amount in Row (11)
1.5% (1) (See Item 5)

14 Type of Reporting Person (See Instructions)
PN, HC

(1) Calculation is based upon (i) 14,703,159 shares of Common Stock outstanding as of November 6, 2018, as reported by the Issuer on its Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, as filed with the Securities and Exchange Commission on November 9, 2018, and (ii) 7,557,142 total shares of Common Stock issued and sold on February 5, 2019 by the Issuer in a public offering as reported on the Issuer's Current Report on Form 8-K, as filed with the Securities and Exchange Commission on February 5, 2019.

1 Names of Reporting Persons.
Christopher Mirabelli

2 Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3 SEC Use Only

4 Source of Funds (See Instructions):
AF

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

6 Citizenship or Place of Organization.
United States

7 Sole Voting Power
253,138 (See Item 5)

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With

8 Shared Voting Power
7,699,896 (See Item 5)

9 Sole Dispositive Power
253,138 (See Item 5)

10 Shared Dispositive Power
7,699,896 (See Item 5)

11 Aggregate Amount Beneficially Owned by Each Reporting Person
7,974,403 (See Item 5)

12 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13 Percent of Class Represented by Amount in Row (11)
34.5% (1) (See Item 5)

14 Type of Reporting Person (See Instructions)
IN, HC

(1) Calculation is based upon: (i) 14,703,159 shares of Common Stock outstanding as of November 6, 2018, as reported by the Issuer on its Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, as filed with the Securities and Exchange Commission on November 9, 2018, (ii) 7,557,142 total shares of Common Stock issued and sold on February 5, 2019 by the Issuer in a public offering as reported on the Issuer's Current Report on Form 8-K, as filed with the Securities and Exchange Commission on February 5, 2019, (iii) 21,369 shares of Common Stock that Nine Capital Partners, LLC may acquire within 60 days from the date of this filing upon the exercise of warrants, (iv) 571,428 shares of Common Stock that Healthcare Ventures IX, L.P. may acquire within 60 days from the date of this filing upon the exercise of warrants, and (v) 253,138 shares of Common Stock that Reporting Person may acquire within 60 days from the date of this filing upon the exercise of options. The Reporting Person is a managing member of Nine Capital Partners, LLC and, as such, shares with Nine Capital Partners, LLC the power to vote and dispose of the 21,369 shares of Common Stock that Nine Capital Partners, LLC may acquire within 60 days from the date of this filing upon the exercise of warrants. Therefore, the Reporting Person may be deemed to beneficially own all of such 21,369 shares of Common Stock beneficially owned by Nine Capital Partners, LLC.

1 Names of Reporting Persons.
Augustine Lawlor

2 Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3 SEC Use Only

4 Source of Funds (See Instructions):
AF

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

6 Citizenship or Place of Organization.
United States

7 Sole Voting Power
253,138 (See Item 5)

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With

8 Shared Voting Power
7,699,896 (See Item 5)

9 Sole Dispositive Power
253,138 (See Item 5)

10 Shared Dispositive Power
7,699,896 (See Item 5)

11 Aggregate Amount Beneficially Owned by Each Reporting Person
7,974,403 (See Item 5)

12 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13 Percent of Class Represented by Amount in Row (11)
34.5% (1) (See Item 5)

14 Type of Reporting Person (See Instructions)
IN, HC

(1) Calculation is based upon: (i) 14,703,159 shares of Common Stock outstanding as of November 6, 2018, as reported by the Issuer on its Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, as filed with the Securities and Exchange Commission on November 9, 2018, (ii) 7,557,142 total shares of Common Stock issued and sold on February 5, 2019 by the Issuer in a public offering as reported on the Issuer's Current Report on Form 8-K, as filed with the Securities and Exchange Commission on February 5, 2019, (iii) 21,369 shares of Common Stock that Nine Capital Partners, LLC may acquire within 60 days from the date of this filing upon the exercise of warrants, (iv) 571,428 shares of Common Stock that Healthcare Ventures IX, L.P. may acquire within 60 days from the date of this filing upon the exercise of warrants, and (v) 253,138 shares of Common Stock that Reporting Person may acquire within 60 days from the date of this filing upon the exercise of options. The Reporting Person is a managing member of Nine Capital Partners, LLC and, as such, shares with Nine Capital Partners, LLC the power to vote and dispose of the 21,369 shares of Common Stock that Nine Capital Partners, LLC may acquire within 60 days from the date of this filing upon the exercise of warrants. Therefore, the Reporting Person may be deemed to beneficially own all of such 21,369 shares of Common Stock beneficially owned by Nine Capital Partners, LLC.

1 Names of Reporting Persons.
Douglas E. Onsi

2 Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3 SEC Use Only

4 Source of Funds (See Instructions):
AF

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

6 Citizenship or Place of Organization.
United States

7 Sole Voting Power
253,138 (See Item 5)

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With

8 Shared Voting Power
5,081,490 (See Item 5)

9 Sole Dispositive Power
253,138 (See Item 5)

10 Shared Dispositive Power
5,081,490 (See Item 5)

11 Aggregate Amount Beneficially Owned by Each Reporting Person
5,355,997 (See Item 5)

12 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13 Percent of Class Represented by Amount in Row (11)
23.2% (1) (See Item 5)

14 Type of Reporting Person (See Instructions)
IN, HC

(1) Calculation is based upon: (i) 14,703,159 shares of Common Stock outstanding as of November 6, 2018, as reported by the Issuer on its Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, as filed with the Securities and Exchange Commission on November 9, 2018, (ii) 7,557,142 total shares of Common Stock issued and sold on February 5, 2019 by the Issuer in a public offering as reported on the Issuer's Current Report on Form 8-K, as filed with the Securities and Exchange Commission on February 5, 2019, (iii) 21,369 shares of Common Stock that Nine Capital Partners, LLC may acquire within 60 days from the date of this filing upon the exercise of warrants, (iv) 571,428 shares of Common Stock that Healthcare Ventures IX, L.P. may acquire within 60 days from the date of this filing upon the exercise of warrants, and (v) 253,138 shares of Common Stock that Reporting Person may acquire within 60 days from the date of this filing upon the exercise of options. The Reporting Person is a managing member of Nine Capital Partners, LLC and, as such, shares with Nine Capital Partners, LLC the power to vote and dispose of the 21,369 shares of Common Stock that Nine Capital Partners, LLC may acquire within 60 days from the date of this filing upon the exercise of warrants. Therefore, the Reporting Person may be deemed to beneficially own all of such 21,369 shares of Common Stock beneficially owned by Nine Capital Partners, LLC.

1 Names of Reporting Persons.
James H. Cavanaugh

2 Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3 SEC Use Only

4 Source of Funds (See Instructions):
AF

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

6 Citizenship or Place of Organization.
United States

7 Sole Voting Power
35,325 (See Item 5)

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With

8 Shared Voting Power
2,618,406 (See Item 5)

9 Sole Dispositive Power
35,325 (See Item 5)

10 Shared Dispositive Power
2,618,406 (See Item 5)

11 Aggregate Amount Beneficially Owned by Each Reporting Person
2,653,731 (See Item 5)

12 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13 Percent of Class Represented by Amount in Row (11)
11.9% (1) (See Item 5)

14 Type of Reporting Person (See Instructions)
IN, HC

(1) Calculation is based upon: (i) 14,703,159 shares of Common Stock outstanding as of November 6, 2018, as reported by the Issuer on its Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, as filed with the Securities and Exchange Commission on November 9, 2018, (ii) 2,137 shares of Common Stock that the Reporting Person may acquire within 60 days from the date of this filing upon the exercise of warrants, and (iii) 33,188 shares of Common Stock that Reporting Person may acquire within 60 days from the date of this filing upon the exercise of options.

1 Names of Reporting Persons.
John W. Littlechild

2 Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3 SEC Use Only

4 Source of Funds (See Instructions):
AF

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

6 Citizenship or Place of Organization.
United States

7 Sole Voting Power
35,325 (See Item 5)

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With

8 Shared Voting Power
2,618,406 (See Item 5)

9 Sole Dispositive Power
35,325 (See Item 5)

10 Shared Dispositive Power
2,618,406 (See Item 5)

11 Aggregate Amount Beneficially Owned by Each Reporting Person
2,653,731 (See Item 5)

12 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13 Percent of Class Represented by Amount in Row (11)
11.9% (1) (See Item 5)

14 Type of Reporting Person (See Instructions)
IN, HC

(1) Calculation is based upon: (i) 14,703,159 shares of Common Stock outstanding as of November 6, 2018, as reported by the Issuer on its Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, as filed with the Securities and Exchange Commission on November 9, 2018, (ii) 2,137 shares of Common Stock that the Reporting Person may acquire within 60 days from the date of this filing upon the exercise of warrants, and (iii) 33,188 shares of Common Stock that Reporting Person may acquire within 60 days from the date of this filing upon the exercise of options.

1 Names of Reporting Persons.
Harold Wemer

2 Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3 SEC Use Only

4 Source of Funds (See Instructions):
AF

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

6 Citizenship or Place of Organization.
United States

7 Sole Voting Power
2,137

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With

8 Shared Voting Power
2,618,406 (See Item 5)

9 Sole Dispositive Power
2,137

10 Shared Dispositive Power
2,618,406 (See Item 5)

11 Aggregate Amount Beneficially Owned by Each Reporting Person
2,620,543 (See Item 5)

12 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13 Percent of Class Represented by Amount in Row (11)
11.8% (1) (See Item 5)

14 Type of Reporting Person (See Instructions)
IN, HC

(1) Calculation is based upon: (i) 14,703,159 shares of Common Stock outstanding as of November 6, 2018, as reported by the Issuer on its Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, as filed with the Securities and Exchange Commission on November 9, 2018, and (ii) 2,137 shares of Common Stock that Werner Family Investment L.P. may acquire within 60 days from the date of this filing upon the exercise of warrants. The Reporting Person is the general partner of Werner Family Investment, L.P. and, as such, shares with Werner Family Investment, L.P. the power to vote and dispose of the 2,137 shares of Common Stock that Werner Family Investment, L.P. may acquire within 60 days from the date of this filing upon the exercise of warrants. Therefore, the Reporting Person is deemed to beneficially own all of such 2,137 shares of Common Stock beneficially owned by Werner Family Investment L.P.

SCHEDULE 13D

Item 1. Security and Issuer

This Amendment No. 3 to Schedule 13D relates to Common Stock, par value \$0.001 per share (the “Common Stock”), of Leap Therapeutics, Inc., a Delaware corporation (the “Issuer” or the “Company” or “Issuer”). The address of the principal executive offices of the Issuer is 47 Thorndike Street, Suite B1-1, Cambridge, Massachusetts 02141.

Item 2. Identity and Background

(a) This Amendment No. 3 to Schedule 13D is being filed on behalf of:

- (i) HealthCare Ventures IX, L.P., a Delaware limited partnership (“HCV IX”);
- (ii) HealthCare Partners IX, L.P., a Delaware limited partnership, and the general partner of HCV IX (“HCP IX”);
- (iii) HealthCare Partners IX, LLC, a Delaware limited liability company, and the general partner of HCP IX (“HCP IX LLC”, and together with HCV IX and HCP IX, “HealthCare IX”);
- (iv) HealthCare Ventures VIII, L.P., a Delaware limited partnership (“HCV VIII”);
- (v) HealthCare Partners VIII, L.P., a Delaware limited partnership, and the general partner of HCV VIII (“HCP VIII”);
- (vi) HealthCare Partners VIII, LLC, a Delaware limited liability company, and the general partner of HCP VIII (“HCP VIII LLC”, and together with HCV VIII and HCP VIII, “HealthCare VIII”);
- (vii) HealthCare Ventures Strategic Fund, L.P., a Delaware limited partnership (“Ventures Strategic”);
- (viii) HealthCare Strategic Partners, LLC, a Delaware limited liability company, and the general partner of Ventures Strategic (“Strategic LLC”, and together with Ventures Strategic, “HealthCare Strategic”);
- (ix) Christopher Mirabelli (“Dr. Mirabelli”), a managing director of each of HCP IX LLC, HCP VIII LLC and Strategic LLC;
- (x) Augustine Lawlor (“Mr. Lawlor”), a managing director of each of HCP IX LLC, HCP VIII LLC and Strategic LLC;
- (xi) Douglas E. Onsi (“Mr. Onsi”), a managing director of each of HCP IX LLC and Strategic LLC;
- (xii) James H. Cavanaugh (“Dr. Cavanaugh”), a managing director of HCP VIII LLC;
- (xiii) John W. Littlechild (“Mr. Littlechild”), a managing director of HCP VIII LLC; and
- (xiv) Harold Werner (“Mr. Werner”), a managing director of HCP VIII LLC.

The persons and entities referred to in items (i)-(xiv) hereof may be collectively referred to herein as the “Reporting Persons” and each, a “Reporting Person.”

(b) The business address of each of the Reporting Persons is 47 Thorndike Street, Suite B1-1, Cambridge, Massachusetts 02141.

(c) Each of HCV VIII, HCP VIII, HCP VIII LLC, HCV IX, HCP IX, HCP IX LLC, Ventures Strategic and Strategic LLC is a private investment vehicle.

Each of Dr. Mirabelli, Mr. Lawlor and Mr. Onsi serves as a managing director of each of HCP IX LLC and Strategic LLC, and, in those capacities, the principal occupation of each of Dr. Mirabelli,

Mr. Lawlor and Mr. Onsi is investment management. Dr. Mirabelli is also the Chief Executive Officer, President and Chairman of the Board of Directors of the Issuer. Mr. Onsi is also the Chief Financial Officer, General Counsel, Treasurer and Secretary of the Issuer. Mr. Lawlor is also the Chief Operating Officer of the Issuer.

Each of Mr. Mirabelli, Mr. Lawlor, Dr. Cavanaugh, Mr. Littlechild and Mr. Werner serves as a managing director of HCP VIII LLC, and, in that capacity, the principal occupation of each of Dr. Mirabelli, Mr. Lawlor, Dr. Cavanaugh, Mr. Littlechild and Mr. Werner is investment management. Dr. Cavanaugh and Mr. Littlechild are directors of the Issuer.

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

(e) None of the Reporting Persons has, during the last five years, been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is 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) See Item 6 of the respective cover page of each Reporting Person.

Item 3. Source and Amount of Funds or Other Consideration

The disclosure in Item 4 below is incorporated herein by reference.

Item 4. Purpose of Transaction

On February 1, 2019, the Issuer entered into an underwriting agreement (the "Underwriting Agreement") with Raymond James & Associates, Inc. and Ladenburg Thalmann & Co. Inc., as representatives of the several underwriters listed therein (the "Underwriters"), relating to the issuance and sale in an underwritten public offering by the Issuer of 6,571,428 shares of the Company's Common Stock, and warrants to purchase up to 6,571,428 shares of its Common Stock (the "Offering"). Under the terms of the Underwriting Agreement, the Issuer granted the Underwriters an option, exercisable for 30 days, to purchase up to an additional 985,714 shares of its Common Stock offered in the public offering and/or warrants to purchase up to 985,714 shares of its Common Stock at the public offering price, less underwriting discounts and commissions. The Offering closed on February 5, 2019 including the full exercise of the Underwriters' option to purchase additional securities.

This Schedule 13D relates to the acquisition of shares of Common Stock and warrants to purchase shares of Common Stock of the Issuer by the Reporting Persons as a result of the Offering. The securities acquired by the Reporting Persons were acquired for the purpose of making an investment in the Issuer.

Depending on market conditions, its continuing evaluation of the business and prospects of the Issuer and other factors, the Reporting Persons may acquire additional shares of Common Stock and other securities of the Company from time to time or may dispose of any or all of such shares or other securities held by them from time to time.

At the present time, other than as set forth above, the Reporting Persons do not have any plans or proposals that relate or would result in:

- (a) The acquisition by any person of additional securities of the issuer, or the disposition of securities of the issuer;
- (b) An extraordinary corporate transaction, such as a merger, reorganization or liquidation, involving the issuer or any of its subsidiaries;
- (c) A sale or transfer of a material amount of assets of the issuer or any of its subsidiaries;
- (d) Any change in the present board of directors or management of the issuer, including any plans or proposals to change the number or term of directors or to fill any existing vacancies on the board;
- (e) Any material change in the present capitalization or dividend policy of the issuer;
- (f) Any other material change in the issuer's business or corporate structure, including but not limited to, if the issuer is a registered closed-end investment company, any plans or proposals to make any changes in its investment policy for which a vote is required by section 13 of the Investment Company Act of 1940;
- (g) Changes in the issuer's charter, bylaws or instruments corresponding thereto or other actions which may impede the acquisition of control of the issuer by any person;
- (h) Causing a class of securities of the issuer to be delisted from a national securities exchange or to cease to be authorized to be quoted in an inter-dealer quotation system of a registered national securities association;
- (i) A class of equity securities of the issuer becoming eligible for termination of registration pursuant to section 12(g)(4) of the Act; or
- (j) Any action similar to any of those enumerated above.

Item 5. Interest in Securities of the Issuer

(a)

HCV VIII is the record owner of 2,618,406 shares of Common Stock of the Issuer (the "HCV VIII Shares"). As the general partner of HCV VIII, HCP VIII may be deemed to beneficially own the HCV VIII Shares. As the general partner of HCP VIII, HCP VIII LLC may also be deemed to beneficially own the HCV VIII Shares. As the managing directors of HCP VIII LLC, each of Dr. Mirabelli, Mr. Lawlor, Dr. Cavanaugh, Mr. Littlechild and Mr. Werner may be deemed to own beneficially the HCV VIII Shares. Each Reporting Person disclaims beneficial ownership in excess of such Reporting Person's pecuniary interest in such HCV VIII Shares.

In connection with the Offering, HCV IX purchased 571,804 shares of Common Stock of the Issuer (the "2019 Shares") together with warrants to purchase up to 571,804 shares of Common Stock of the Issuer (the "2019 Warrants"). Following the Offering HCV IX is the record owner of 4,716,232 shares of Common Stock of the Issuer, including the 2019 Shares and the 2019 Warrants (the "HCV

IX Shares”). As the general partner of HCV IX, HCP IX may be deemed to beneficially own the HCV IX Shares. As the general partner of HCP IX, HCP IX LLC may also be deemed to beneficially own the HCV IX Shares. As the managing directors of HCP IX LLC, each of Dr. Mirabelli, Mr. Lawlor and Mr. Onsi may be deemed to own beneficially the HCV IX Shares. Each Reporting Person disclaims beneficial ownership of the HCV IX Shares other than those shares which such person owns of record.

Ventures Strategic is the record owner of 343,889 shares of Common Stock of the Issuer (the “Ventures Strategic Shares”). As the general partner of Venture Strategic, Strategic LLC may be deemed to beneficially own the Ventures Strategic Shares. As the managing directors of Strategic LLC, each of Dr. Mirabelli, Mr. Lawlor and Mr. Onsi may be deemed to own beneficially the Strategic LLC Shares. Each Reporting Person disclaims beneficial ownership in excess of such Reporting Person’s pecuniary interest in excess of such Reporting Person’s pecuniary interest in such Ventures Strategic Shares.

Each of Dr. Mirabelli, Mr. Lawlor, Mr. Onsi, Dr. Cavanaugh and Mr. Littlechild had previously been granted options to purchase shares of Common Stock, subject to terms set forth in stock option agreements. As of the date hereof, in accordance with such agreements, 253,138 shares of Common Stock have vested, or will vest within 60 days, for each of Dr. Mirabelli, Mr. Lawlor and Mr. Onsi, and 33,188 shares of Common Stock have vested, or will vest within 60 days, for each of Dr. Cavanaugh and Mr. Littlechild.

Each of Dr. Mirabelli, Mr. Lawlor and Mr. Onsi are managing members of Nine Capital Partners, LLC, and as such, may be deemed to beneficially own warrants to purchase up to 21,369 shares of Common Stock of the Issuer held by Nine Capital Partners, LLC. Each other Reporting Person disclaims beneficial ownership of such warrants in excess of such Reporting Person’s pecuniary interest therein.

Mr. Werner is the general partner of Werner Family Investment L.P., and shares with Werner Family Investment L.P. voting and dispositive power over warrants to purchase up to 2,137 shares of Common Stock of the Issuer held by Werner Family Investment L.P..

The percentage of outstanding Common Stock of the Issuer which may be deemed to be beneficially owned by each Reporting Person is set forth on Line 13 of such Reporting Person’s cover sheet. The basis of each such percentage calculation herein are described in Footnote (1) of each Reporting Person’s cover sheet.

(b)

- (i) Sole power to vote or to direct the vote: See line 7 of cover sheets.
- (ii) Shared power to vote or to direct the vote: See line 8 of cover sheets.
- (iii) Sole power to dispose or to direct the disposition: See line 9 of cover sheets.
- (iv) Shared power to dispose or to direct the disposition: See line 10 of cover sheets

HCV VIII, and each of HCP VIII, as the general partner of HCV VIII, HCP VIII LLC, as the general partner of HCP VIII, and each Dr. Mirabelli, Dr. Cavanaugh, and Messrs. Lawlor, Littlechild and Werner, as a managing director of HCP VIII LLC, share voting and investment control over all shares of Common Stock of the Issuer held of record by HCV VIII.

HCV IX, and each of HCP IX, as the general partner of HCV IX, HCP IX LLC, as the general partner of HCP IX, and each of Messrs. Mirabelli, Lawlor and Onsi, as a managing director of HCP IX LLC,

share voting and investment control over all shares of Common Stock of the Issuer held of record by HCV IX.

Ventures Strategic, Strategic LLC, as the general partner of Ventures Strategic, and each of Mr. Mirabelli, Mr. Lawlor and Mr. Onsi, as a managing director of Strategic LLC, share voting and investment control over all shares of Common Stock of the Issuer held of record by Ventures Strategic.

Nine Capital Partners, LLC, a Delaware limited liability company, and each of Messrs. Mirabelli, Lawlor and Onsi, as a managing member of Nine Capital Partners, LLC, share voting and investment control over the warrant held by Nine Capital Partners, LLC, which warrant is exercisable to purchase up to 21,369 shares of Common Stock of the Issuer.

Werner Family Investment L.P., a Delaware limited partnership, and Mr. Werner, as the general partner of Werner Family Investment L. P., share voting and investment control over the warrant held by Werner Family Investment L.P., which warrant is exercisable to purchase up to 2,137 shares of Common Stock of the Issuer.

(c) On February 5, 2019, the Issuer closed an underwritten public offering of 6,571,428 shares of the Issuer's Common Stock, and warrants to purchase up to 6,571,428 shares of its Common Stock (the "Offering"). Under the terms of the Underwriting Agreement, the Issuer granted the Underwriters an option, exercisable for 30 days, to purchase up to an additional 985,714 shares of its Common Stock offered in the public offering and/or warrants to purchase up to 985,714 shares of its Common Stock at the public offering price, less underwriting discounts and commissions.

(d) See Items 7-11 of the cover pages and sections (a) and (b) above of this Item 5.

(e) Not applicable.

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

See Items 4 and 5 above, which are hereby incorporated herein.

On November 14, 2017, as a private placement, the Issuer entered into purchase agreements (collectively, the "Purchase Agreements") with certain existing and new institutional accredited investors and strategic partners (collectively, the "Purchasers"), including HCV IX. Pursuant to such Purchase Agreements, the Issuer, issued and sold to the Purchasers an aggregate of 2,958,094 shares (the "Shares") of unregistered Common Stock, at a price per share of \$6.085, and, with each share issued a warrant (collectively, the "Warrants") to purchase one share of Common Stock (the "Warrant Shares") at an exercise price of \$6.085 (the "Exercise Price") with an exercise period expiring seven years after closing (the "Term"). The Warrants include full ratchet anti-dilution protection provisions, which were approved by the stockholders of the Issuer on January 12, 2018.

Pursuant to the terms of the Purchase Agreements, the Issuer was obligated to prepare and file with the Securities and Exchange Commission (the "SEC") a registration statement (the "Registration Statement") to register for resale the Shares and the Warrant Shares on or prior to the date that was thirty (30) days following the closing of the Private Placement, and use its best commercially reasonable efforts, subject to receipt of necessary information from the Purchasers, to cause the SEC

to declare the Registration Statement effective within sixty (60) days following the closing of the Private Placement or, if the Registration Statement was selected for review by the SEC, within ninety (90) days following the closing of the Private Placement. The Issuer filed the Registration Statement with the SEC on December 8, 2017 (File No. 333-221968).

On January 23, 2017, the Issuer entered into a registration rights agreement certain holders of Common Stock (the "RRA"), pursuant to which the holders were granted certain demand and piggyback registration rights with respect to any and all shares of Common Stock held or acquired by the holders on or after the date of the RRA.

Item 7. Material to be Filed as Exhibits

Exhibit 99.1 Joint Filing Agreement, by and among the Reporting Persons.

Exhibit 99.2 Form of Warrant, dated as of February 5, 2019 (incorporated by reference to Exhibit 99.2 to Schedule 13D (File No. 001-37990) filed with the SEC on February 1, 2019).

Exhibit 99.3 Lock-up Agreement dated as of February 1, 2019, incorporated by reference to Exhibit 99.3 to Schedule 13D (File No. 001-37990) filed with the SEC on February 1, 2019).

Exhibit 99.4 Power of Attorney, dated as of January 18, 2017 from Augustine Lawlor in favor of Douglas Onsi (incorporated by reference to Exhibit 24.1 to Form 3 (File No. 001-37990) filed with the SEC on January 23, 2017).

Exhibit 99.5 Power of Attorney, dated as of January 20, 2017 from James H. Cavanaugh in favor of Douglas Onsi (incorporated by reference to Exhibit 24.1 to Form 3 (File No. 001-37990) filed with the SEC on January 23, 2017).

Exhibit 99.6 Power of Attorney, dated as of January 20, 2017 from John W. Littlechild in favor of Douglas Onsi (incorporated by reference to Exhibit 24.1 to Form 3 (File No. 001-37990) filed with the SEC on January 23, 2017).

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.

Date: February 8, 2019

HEALTHCARE VENTURES VIII, L.P.

By: HealthCare Partners VIII, L.P., its general partner

By: HealthCare Partners VIII, LLC, its general partner

By: /s/ Christopher K. Mirabelli

Name: Christopher K. Mirabelli

Title: Manager

HEALTHCARE PARTNERS VIII, L.P.

By: HealthCare Partners VIII, LLC, its general partner

By: /s/ Christopher K. Mirabelli

Name: Christopher K. Mirabelli

Title: Manager

HEALTHCARE PARTNERS VIII, LLC

By: /s/ Christopher K. Mirabelli

Name: Christopher K. Mirabelli

Title: Manager

HEALTHCARE VENTURES IX, L.P.

By: HealthCare Partners IX, L.P., its general partner

By: HealthCare Partners IX, LLC, its general partner

By: /s/ Douglas E. Onsi

Name: Douglas E. Onsi

Title: Manager

HEALTHCARE PARTNERS IX, L.P.

By: HealthCare Partners IX, LLC, its general partner

By: /s/ Douglas E. Onsi

Name: Douglas E. Onsi

Title: Manager

HEALTHCARE PARTNERS IX, LLC

By: /s/ Douglas E. Onsi

Name: Douglas E. Onsi

Title: Manager

HEALTHCARE VENTURES STRATEGIC FUND, L.P.

By: HealthCare Strategic Partners, LLC, its general partner

By: /s/ Douglas E. Onsi

Name: Douglas E. Onsi

Title: Manager

HEALTHCARE STRATEGIC PARTNERS, LLC

By: /s/ Douglas E. Onsi
Name: Douglas E. Onsi
Title: Manager

CHRISTOPHER K. MIRABELLI, Ph.D.

By: /s/ Christopher K. Mirabelli
Name: Christopher K. Mirabelli, Ph.D.

AUGUSTINE LAWLOR

By: Douglas E. Onsi, Attorney-in-fact
Name: Augustine Lawlor

DOUGLAS E. ONSI

By: /s/ Douglas E. Onsi
Name: Douglas E. Onsi

JAMES H. CAVANAUGH

By: /s/ Douglas E. Onsi, Attorney-in-fact
Name: James H. Cavanaugh

JOHN W. LITTLECHILD

By: /s/ Douglas E. Onsi, Attorney-in-fact
Name: John W. Littlechild

HAROLD WERNER

By: /s/ Harold Werner
Name: Harold Werner

CUSIP No. 52187K101

JOINT FILING AGREEMENT

This Joint Filing Agreement, dated as of February 8, 2019, is by and among HealthCare Ventures IX, L.P., HealthCare Partners IX, L.P., HealthCare Partners IX, LLC, Christopher K. Mirabelli, Ph.D., Augustine Lawlor, Douglas E. Onsi, James H. Cavanaugh, John W. Littlechild and Harold Werner (collectively, the "Filers").

Each of the Filers may be required to file with the United States Securities and Exchange Commission a statement on Schedule 13G and/or 13D with respect to shares of Common Stock, \$0.001 par value per share, of Leap Therapeutics, Inc. that may be beneficially owned by them from time to time.

Pursuant to and in accordance with Rule 13(d)(1)(k) promulgated under the Securities Exchange Act of 1934, as amended, the Filers hereby agree to file a single statement on Schedule 13G and/or 13D (and any amendments thereto) on behalf of each of such parties, and hereby further agree to file this Joint Filing Agreement as an exhibit to such statement, as required by such rule.

This Joint Filing Agreement may be terminated by any of the Filers upon one week's prior written notice (or such lesser period of notice as the Filers may mutually agree) to the other party.

Executed and delivered as of the date first above written.

HEALTHCARE VENTURES VIII, L.P.

By: HealthCare Partners VIII, L.P., its general partner

By: HealthCare Partners VIII, LLC, its general partner

By: /s/ Christopher K. Mirabelli

Name: Christopher K. Mirabelli

Title: Manager

HEALTHCARE PARTNERS VIII, L.P.

By: HealthCare Partners VIII, LLC, its general partner

By: /s/ Christopher K. Mirabelli

Name: Christopher K. Mirabelli

Title: Manager

HEALTHCARE PARTNERS VIII, LLC

By: /s/ Christopher K. Mirabelli
Name: Christopher K. Mirabelli
Title: Manager

HEALTHCARE VENTURES IX, L.P.

By: HealthCare Partners IX, L.P., its general partner

By: HealthCare Partners IX, LLC, its general partner

By: /s/ Douglas E. Onsi
Name: Douglas E. Onsi
Title: Manager

HEALTHCARE PARTNERS IX, L.P.

By: HealthCare Partners IX, LLC, its general partner

By: /s/ Douglas E. Onsi
Name: Douglas E. Onsi
Title: Manager

HEALTHCARE PARTNERS IX, LLC

By: /s/ Douglas E. Onsi
Name: Douglas E. Onsi
Title: Manager

HEALTHCARE VENTURES STRATEGIC FUND, L.P.

By: HealthCare Strategic Partners, LLC, its general partner

By: /s/ Douglas E. Onsi
Name: Douglas E. Onsi
Title: Manager

HEALTHCARE STRATEGIC PARTNERS, LLC

By: /s/ Douglas E. Onsi
Name: Douglas E. Onsi
Title: Manager

CHRISTOPHER K. MIRABELLI, Ph.D.

By: /s/ Christopher K. Mirabelli
Name: Christopher K. Mirabelli, Ph.D.

AUGUSTINE LAWLOR

By: /s/ Douglas E. Onsi, Attorney-in-fact
Name: Augustine Lawlor

DOUGLAS E. ONSI

By: /s/ Douglas E. Onsi
Name: Douglas E. Onsi

JAMES H. CAVANAUGH

By: /s/ Douglas E. Onsi, Attorney-in-fact
Name: James H. Cavanaugh

JOHN W. LITTLECHILD

By: /s/ Douglas E. Onsi, Attorney-in-fact
Name: John W. Littlechild

HAROLD WERNER

By: /s/ Harold Werner
Name: Harold Werner
