

Global Blood Therapeutics, Inc.  
Form SC 13G/A  
February 13, 2017

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

**SCHEDULE 13G**  
**UNDER THE SECURITIES EXCHANGE ACT OF 1934**  
**(Amendment No. 1)\***

**Global Blood Therapeutics, Inc.**  
**(Name of Issuer)**

**COMMON STOCK, \$0.001 PAR VALUE PER SHARE**  
**(Title of Class of Securities)**

**37890U108**  
**(CUSIP Number)**

**December 31, 2016**  
**(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 the disclosures provided in a prior cover page.

The information required in 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).

CUSIP No. 37890U108

SCHEDULE 13G

Page 2 of 15 Pages

1. NAMES OF REPORTING PERSONS

**Third Rock Ventures II, L.P.**

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

(a) (b)

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

5. SOLE VOTING POWER

NUMBER OF

SHARES 0

6. SHARED VOTING POWER

BENEFICIALLY

OWNED BY 7,475,191

EACH 7. SOLE DISPOSITIVE POWER

REPORTING

PERSON 0

8. SHARED DISPOSITIVE POWER

WITH

7,475,191

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

7,475,191

10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

12. 20.0% (1)  
TYPE OF REPORTING PERSON

PN

(1) The percent of class was calculated based on 37,316,451 shares of common stock issued and outstanding as of November 1, 2016, as disclosed in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 9, 2016.

CUSIP No. 37890U108

SCHEDULE 13G

Page 3 of 15 Pages

1. NAMES OF REPORTING PERSONS

**Third Rock Ventures GP II, L.P.**

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

(a) (b)

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

5. SOLE VOTING POWER

NUMBER OF

SHARES 0

6. SHARED VOTING POWER

BENEFICIALLY

OWNED BY 7,475,191

EACH 7. SOLE DISPOSITIVE POWER

REPORTING

PERSON 0

8. SHARED DISPOSITIVE POWER

WITH

7,475,191

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

7,475,191

10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

12. 20.0% (1)  
TYPE OF REPORTING PERSON

PN

CUSIP No. 37890U108

SCHEDULE 13G

Page 4 of 15 Pages

1. NAMES OF REPORTING PERSONS

**TRV GP II, LLC**

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

(a) (b)

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

5. SOLE VOTING POWER

NUMBER OF

SHARES 0

6. SHARED VOTING POWER

BENEFICIALLY

OWNED BY 7,475,191

EACH 7. SOLE DISPOSITIVE POWER

REPORTING

PERSON 0

8. SHARED DISPOSITIVE POWER

WITH

7,475,191

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

7,475,191

10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

12. 20.0% (1)  
TYPE OF REPORTING PERSON

OO



CUSIP No. 37890U108

SCHEDULE 13G

Page 5 of 15 Pages

1. NAMES OF REPORTING PERSONS

**Third Rock Ventures III, L.P.**

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

(a) (b)

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

5. SOLE VOTING POWER

NUMBER OF

SHARES 0

6. SHARED VOTING POWER

BENEFICIALLY

OWNED BY 1,285,713

EACH 7. SOLE DISPOSITIVE POWER

REPORTING

PERSON 0

8. SHARED DISPOSITIVE POWER

WITH

1,285,713

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,285,713

10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

12. 3.4% (1)  
TYPE OF REPORTING PERSON

PN

CUSIP No. 37890U108

SCHEDULE 13G

Page 6 of 15 Pages

1. NAMES OF REPORTING PERSONS

**Third Rock Ventures GP III, L.P.**

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

(a) (b)

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

5. SOLE VOTING POWER

NUMBER OF

SHARES 0

6. SHARED VOTING POWER

BENEFICIALLY

OWNED BY 1,285,713

EACH 7. SOLE DISPOSITIVE POWER

REPORTING

PERSON 0

8. SHARED DISPOSITIVE POWER

WITH

1,285,713

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,285,713

10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

12. 3.4% (1)  
TYPE OF REPORTING PERSON

PN

CUSIP No. 37890U108

SCHEDULE 13G

Page 7 of 15 Pages

1. NAMES OF REPORTING PERSONS

**TRV GP III, LLC**

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

(a) (b)

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

5. SOLE VOTING POWER

NUMBER OF

SHARES 0

6. SHARED VOTING POWER

BENEFICIALLY

OWNED BY 1,285,713

EACH 7. SOLE DISPOSITIVE POWER

REPORTING

PERSON 0

8. SHARED DISPOSITIVE POWER

WITH

1,285,713

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,285,713

10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

12. 3.4% (1)  
TYPE OF REPORTING PERSON

OO

CUSIP No. 37890U108

SCHEDULE 13G

Page 8 of 15 Pages

## 1. NAMES OF REPORTING PERSONS

**Mark Levin**

## 2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

(a) (b)

## 3. SEC USE ONLY

## 4. CITIZENSHIP OR PLACE OF ORGANIZATION

United States

## 5. SOLE VOTING POWER

## NUMBER OF

SHARES	191,502
	6. SHARED VOTING POWER

## BENEFICIALLY

OWNED BY	8,760,904
EACH	7. SOLE DISPOSITIVE POWER

## REPORTING

PERSON	191,502
	8. SHARED DISPOSITIVE POWER

## WITH

	8,760,904
9.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

	8,952,406
10.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

12. 24.0% (1)  
TYPE OF REPORTING PERSON

IN



CUSIP No. 37890U108

SCHEDULE 13G

Page 9 of 15 Pages

1. NAMES OF REPORTING PERSONS

**Kevin P. Starr**

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

(a) (b)

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

United States

5. SOLE VOTING POWER

NUMBER OF

SHARES 97,544 (2)

6. SHARED VOTING POWER

BENEFICIALLY

OWNED BY 8,760,904

EACH 7. SOLE DISPOSITIVE POWER

REPORTING

PERSON 97,544 (2)

8. SHARED DISPOSITIVE POWER

WITH

8,760,904

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

8,858,448

10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

12. 23.7% (1)  
TYPE OF REPORTING PERSON

IN

(2) This number includes options to purchase 15,000 shares exercisable within 60 days of December 31, 2016.

1. NAMES OF REPORTING PERSONS

**Robert I. Tepper**

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

(a) (b)

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

United States

5. SOLE VOTING POWER

NUMBER OF

SHARES 191,501  
6. SHARED VOTING POWER

BENEFICIALLY

OWNED BY 8,760,904  
EACH 7. SOLE DISPOSITIVE POWER

REPORTING

PERSON 191,501  
8. SHARED DISPOSITIVE POWER

WITH

8,760,904  
9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

8,952,405  
10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

12. 24.0% (1)  
TYPE OF REPORTING PERSON

IN

CUSIP No. 37890U108

SCHEDULE 13G

Page 11 of 15 Pages

**Item 1. Issuer**

- (a) Name of Issuer:  
Global Blood Therapeutics, Inc. (the **Issuer** )
- (b) Address of Issuer's Principal Executive Offices:  
400 East Jamie Court  
  
South San Francisco, CA 94080

**Item 2. Filing Person**

- (a) (c) Name of Persons Filing; Address; Citizenship:
- (i) Third Rock Ventures II, L.P. ( **TRV II** );
  - (ii) Third Rock Ventures GP II, L.P. ( **TRV GP II** ), which is the sole general partner of TRV II;
  - (iii) TRV GP II, LLC ( **TRV GP II LLC** ), which is the sole general partner of TRV GP II;
  - (iv) Third Rock Ventures III, L.P. ( **TRV III** );
  - (v) Third Rock Ventures GP III, L.P. ( **TRV GP III** ), which is the sole general partner of TRV III;
  - (vi) TRV GP III, LLC ( **TRV GP III LLC** ), which is the sole general partner of TRV GP III;
  - (vii) Mark Levin ( **Levin** ), a managing member of TRV GP II LLC and TRV GP III LLC;
  - (viii) Kevin P. Starr ( **Starr** ), a managing member of TRV GP II LLC and TRV GP III LLC; and
  - (ix) Robert I. Tepper ( **Tepper**, and collectively with TRV II, TRV GP II, TRV GP II LLC, TRV III, TRV GP III, TRV GP III LLC, Levin and Starr, the **Reporting Persons** ), a managing member of TRV GP II LLC and TRV GP III LLC.

The address of the principal business office of each of the Reporting Persons is Third Rock Ventures, LLC, 29 Newbury Street, 3rd Floor, Boston, MA 02116.

Each of TRV II, TRV III, TRV GP II and TRV GP III is a Delaware limited partnership. Each of TRV GP II LLC and TRV GP III LLC is a Delaware limited liability company. Levin, Tepper and Starr are United States citizens.

- (d) Title of Class of Securities:  
Common stock, \$0.001 par value per share, (the **Common Stock** )
- (e) CUSIP Number:

37890U108

**Item 3. If this statement is filed pursuant to Rules 13d-1(b), or 13d-2(b) or (c), check whether the person filing is a:**

- (a) Broker or dealer registered under Section 15 of the Act;
- (b) Bank as defined in Section 3(a)(6) of the Act;
- (c) Insurance company as defined in Section 3(a)(19) of the Act;
- (d) Investment company registered under Section 8 of the Investment Company Act of 1940;
- (e) An investment adviser in accordance with Rule 13d-1(b)(1)(ii)(E);
- (f) An employee benefit plan or endowment fund in accordance with Rule 13d-1(b)(1)(ii)(F);
- (g) A parent holding company or control person in accordance with Rule 13d-1(b)(1)(ii)(G);
- (h) A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);

- (i) A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940;
- (j) A non-U.S. institution in accordance with Rule 240.13d-1(b)(1)(ii)(J);
- (k) Group, in accordance with Rule 240.13d-1(b)(1)(ii)(K). If filing as a non-U.S. institution in accordance with Rule 240.13d-1(b)(1)(ii)(J), please specify the type of institution:

If filing as a non-U.S. institution in accordance with §240.13d-1(b)(1)(ii)(J), please specify the type of institution:

#### Item 4. Ownership.

(a) and (b) Amount beneficially owned:

- (i) TRV II directly owns 7,475,191 shares of Common Stock (the **Fund II Shares** ), which represents approximately 20.0% of the outstanding shares of Common Stock.
- (ii) TRV GP II is the general partner of TRV II and may be deemed to beneficially own the Fund II Shares.
- (iii) TRV GP II LLC is the general partner of TRV GP II and may be deemed to beneficially own the Fund II Shares.
- (iv) TRV III directly owns 1,285,713 shares of Common Stock (the **Fund III Shares** ), which represents approximately 3.4% of the outstanding shares of Common Stock.
- (v) TRV GP III is the general partner of TRV III and may be deemed to beneficially own the Fund III Shares.
- (vi) TRV GP III LLC is the general partner of TRV GP III and may be deemed to beneficially own the Fund III Shares.
- (vii) As a managing member of TRV GP II LLC and TRV GP III LLC, Levin may be deemed to beneficially own the Fund II Shares and the Fund III Shares. Additionally, as of December 31, 2016, Levin directly owns 191,502 shares of Common Stock, which represents 0.5% of the outstanding shares of Common Stock. As a result, Levin may be deemed to beneficially own an aggregate of 8,952,406 shares of Common Stock, which represents approximately 24.0% of the outstanding shares of Common Stock.
- (viii) As a managing member of TRV GP II LLC and TRV GP III LLC, Tepper may be deemed to beneficially own the Fund II Shares and the Fund III Shares. Additionally, as of December 31, 2016, Tepper directly owns 191,501 shares of Common Stock, which represents 0.5% of the outstanding shares of Common Stock. As a result, Levin may be deemed to beneficially own an aggregate of 8,952,405 shares of Common Stock, which represents approximately 24.0% of the outstanding shares of Common Stock.
- (ix) As a managing member of TRV GP II LLC and TRV GP III LLC, Starr may be deemed to beneficially own the Fund II Shares and the Fund III Shares. Additionally, as of December 31, 2016, Starr directly owns 82,544 shares of Common Stock and options to purchase 15,000 shares of Common Stock exercisable within 60 days of December 31, 2016. As a result, Starr may be deemed to beneficially own an aggregate of 8,858,448 shares of Common Stock, which represents approximately 23.7% of the

outstanding shares of Common Stock.

(c) Number of shares as to which such person has:



CUSIP No. 37890U108

SCHEDULE 13G

Page 13 of 15 Pages

Reporting Person	Number of Shares of Common Stock			
	(i)	(ii)	(iii)	(iv)
TRV II	0	7,475,191	0	7,475,191
TRV GP II	0	7,475,191	0	7,475,191
TRV GP II LLC	0	7,475,191	0	7,475,191
TRV III	0	1,285,713	0	1,285,713
TRV GP III	0	1,285,713	0	1,285,713
TRV GP III LLC	0	1,285,713	0	1,285,713
Levin	191,502	8,760,904	191,502	8,760,904
Starr	97,544	8,760,904	97,544	8,760,904
Tepper	191,501	8,760,904	191,501	8,760,904

- (i) Sole power to vote or direct the vote
- (ii) Shared power to vote or to direct the vote
- (iii) Sole power to dispose or to direct the disposition of
- (iv) Shared power to dispose or to direct the disposition of

The percent of class was calculated based on 37,316,451 shares of common stock issued and outstanding as of November 1, 2016, as disclosed in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 9, 2016.

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

Not applicable.

**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 or Control Person.**

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.

CUSIP No. 37890U108

SCHEDULE 13G

Page 14 of 15 Pages

**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 13, 2017

**THIRD ROCK VENTURES II, L.P.**

By: THIRD ROCK VENTURES GP II, L.P.,  
General Partner

By: TRV GP II, LLC,  
General Partner

By: /s/ Kevin Gillis  
Kevin Gillis

Chief Financial Officer

**THIRD ROCK VENTURES GP II, L.P.**

By: TRV GP II, LLC,  
General Partner

By: /s/ Kevin Gillis  
Kevin Gillis

Chief Financial Officer

**TRV GP II, LLC**

By: /s/ Kevin Gillis  
Kevin Gillis

Chief Financial Officer

**THIRD ROCK VENTURES III, L.P.**

By: THIRD ROCK VENTURES GP III, L.P.,  
General Partner

By: TRV GP III, LLC,  
General Partner

By: /s/ Kevin Gillis  
Kevin Gillis

Chief Financial Officer

**THIRD ROCK VENTURES GP III, L.P.**

By: TRV GP III, LLC,  
General Partner

By: /s/ Kevin Gillis  
Kevin Gillis  
Chief Financial Officer

**TRV GP III, LLC**

By: /s/ Kevin Gillis  
Kevin Gillis  
Chief Financial Officer

**MARK LEVIN**

/s/ Kevin Gillis, As attorney-in-fact  
Mark Levin

**KEVIN P. STARR**

/s/ Kevin Gillis, As attorney-in-fact  
Kevin P. Starr

**ROBERT I. TEPPER**

/s/ Kevin Gillis, As attorney-in-fact  
Robert I. Tepper