

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934
(Amendment No. 1)*

Rapport Therapeutics, Inc.
(Name of Issuer)
Common Stock, \$0.001 par value per share
(Title of Class of Securities)
(CUSIP Number)
06/30/2026
(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)

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons Third Rock Ventures V, L.P. Check the appropriate box if a member of a Group (see instructions)
2	☐ (a) ☒ (b)
3	Sec Use Only Citizenship or Place of Organization
4	DELAWARE

Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power
	0.00	
		Shared Voting Power
	6	
	6,280,525.00	
		Sole Dispositive Power
	7	
	0.00	
		Shared Dispositive Power
	8	
	6,280,525.00	
9	Aggregate Amount Beneficially Owned by Each Reporting Person	
	6,280,525.00	
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)	
	☐	
11	Percent of class represented by amount in row (9)	
	13.1 %	
12	Type of Reporting Person (See Instructions)	
	PN	

Comment for Type of Reporting Person: (1) The percent of class was calculated based on 47,978,286 shares of common stock issued and outstanding as of August 3, 2026, as disclosed in the Issuer's 10-Q filed with the Securities and Exchange Commission on August 5, 2026.

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons	
	Third Rock Ventures GP V, L.P.	
	Check the appropriate box if a member of a Group (see instructions)	
2	☐ (a)	
	☒ (b)	
3	Sec Use Only	
4	Citizenship or Place of Organization	
	DELAWARE	
	Sole Voting Power	
	5	
	0.00	
Number of Shares Beneficially Owned by Each Reporting Person With:	6	Shared Voting Power
	6,280,525.00	
		Sole Dispositive Power
	7	
	0.00	
		Shared Dispositive Power
	8	
	6,280,525.00	
9	Aggregate Amount Beneficially Owned by Each Reporting Person	

	6,280,525.00
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)
	☐
11	Percent of class represented by amount in row (9)
	13.1 %
12	Type of Reporting Person (See Instructions)
	PN

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons
	TRV GP V, LLC
	Check the appropriate box if a member of a Group (see instructions)
2	☐ (a)
	☒ (b)
3	Sec Use Only
4	Citizenship or Place of Organization
	DELAWARE
	Sole Voting Power
5	0.00
	Shared Voting Power
6	6,280,525.00
	Sole Dispositive Power
7	0.00
	Shared Dispositive
8	Power
	6,280,525.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person
	6,280,525.00
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)
	☐
11	Percent of class represented by amount in row (9)
	13.1 %
12	Type of Reporting Person (See Instructions)
	OO

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons
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Third Rock Ventures VI, L.P.

Check the appropriate box if a member of a Group (see instructions)

2

☐ (a)

☒ (b)

3

Sec Use Only

Citizenship or Place of Organization

4

DELAWARE

Sole Voting Power

5

0.00

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person
With:

Shared Voting Power

6

969,218.00

Sole Dispositive Power

7

0.00

Shared Dispositive

8

Power

969,218.00

Aggregate Amount Beneficially Owned by Each Reporting Person

9

969,218.00

Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)

10

☐

Percent of class represented by amount in row (9)

11

2.0 %

Type of Reporting Person (See Instructions)

12

PN

SCHEDULE 13G

CUSIP No.

Names of Reporting Persons

1

Third Rock Ventures GP VI, L.P.

Check the appropriate box if a member of a Group (see instructions)

2

☐ (a)

☒ (b)

3

Sec Use Only

Citizenship or Place of Organization

4

DELAWARE

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person
With:

Sole Voting Power

5

0.00

Shared Voting Power

6

969,218.00

7 Sole Dispositive Power

	0.00
	Shared Dispositive
8	Power
	969,218.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person
	969,218.00
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)
	☐
11	Percent of class represented by amount in row (9)
	2.0 %
12	Type of Reporting Person (See Instructions)
	PN

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons
	TRV GP VI, LLC
	Check the appropriate box if a member of a Group (see instructions)
2	☐ (a)
	☒ (b)
3	Sec Use Only
4	Citizenship or Place of Organization
	DELAWARE
	Sole Voting Power
5	0.00
	Shared Voting Power
6	969,218.00
	Sole Dispositive Power
7	0.00
	Shared Dispositive
8	Power
	969,218.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person
	969,218.00
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)
	☐
11	Percent of class represented by amount in row (9)
	2.0 %
12	Type of Reporting Person (See Instructions)
	OO

SCHEDULE 13G

Item 1.

Name of issuer:

(a)

Rapport Therapeutics, Inc.

Address of issuer's principal executive offices:

(b)

1325 Boylston Street, Suite 401 Boston, MA 02215

Item 2.

Name of person filing:

(a)

(i) Third Rock Ventures V, L.P. ("TRV V"); (ii) Third Rock Ventures GP V, L.P. ("TRV GP V"), which is the sole general partner of TRV V; (iii) TRV GP V, LLC ("TRV GP V LLC"), which is the sole general partner of TRV GP V; (iv) Third Rock Ventures VI, L.P. ("TRV VI"); (v) Third Rock Ventures GP VI, L.P. ("TRV GP VI"), which is the sole general partner of TRV VI; and (vi) TRV GP VI, LLC ("TRV GP VI LLC"), which is the sole general partner of TRV GP VI.

Address or principal business office or, if none, residence:

(b)

The address of the principal business office of each of the Reporting Persons is Third Rock Ventures, LLC, 201 Brookline Ave, Suite 1401, Boston, MA 02215.

Citizenship:

(c)

Each of TRV V, TRV GP V, TRV VI and TRV GP VI is a Delaware limited partnership. Each of TRV GP V LLC and TRV GP VI LLC is a Delaware limited liability company.

Title of class of securities:

(d)

Common Stock, \$0.001 par value per share

(e)

CUSIP No.:

Item 3. If this statement is filed pursuant to §§ 240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

(a)

☐ Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o);

(b)

☐ Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c);

(c)

☐ Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c);

(d)

☐ Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8);

(e)

☐ An investment adviser in accordance with § 240.13d-1(b)(1)(ii)(E);

(f)

☐ An employee benefit plan or endowment fund in accordance with § 240.13d-1(b)(1)(ii)(F);

(g)

☐ A parent holding company or control person in accordance with § 240.13d-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 (15 U.S.C. 80a-3);

(j)

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

(k)

☐ Group, in accordance with Rule 240.13d-1(b)(1)(ii)(K).

Item 4. Ownership

Amount beneficially owned:

(a)

(i) TRV V directly owns 6,280,525 shares of Common Stock (the "V Shares"). (ii) TRV GP V is the general partner of TRV V and may be deemed to beneficially own the V Shares. (iii) TRV GP V LLC is the general partner of TRV GP V and may be deemed to beneficially own the V Shares. (iv) TRV VI directly owns 969,218 shares of Common Stock (the "VI Shares"). (v) TRV GP VI is the general partner of TRV VI and may be deemed to beneficially own the VI Shares. (vi) TRV GP VI LLC is the general partner of TRV GP VI and may be deemed to beneficially own the VI Shares. Each of TRV V, TRV GP V, and TRV GP V LLC, on the one hand, and TRV VI, TRV GP VI and TRV GP VI LLC, on the other hand, disclaim the existence of a "group" for purposes of Rule 13d-5 of the Securities Exchange Act of 1934, as amended, and nothing contained in this report shall be deemed an admission that any such group exists or may exist.

(b)

Percent of class:

The V shares represent approximately 13.1% of the outstanding shares of Common Stock. The VI shares represent approximately 2.0% of the outstanding shares of Common Stock. The percent of class was calculated based on 47,978,286 shares of common stock issued and outstanding as of August 3, 2026, as disclosed in the Issuer's 10-Q filed with the Securities and Exchange Commission on August 5, 2026. %

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

(i) Sole power to vote or to direct the vote:

TRV V - 0 TRV GP V - 0 TRV GP V LLC - 0 TRV VI - 0 TRV GP VI - 0 TRV GP VI LLC - 0

(ii) Shared power to vote or to direct the vote:

TRV V - 6,280,525 TRV GP V - 6,280,525 TRV GP V LLC - 6,280,525 TRV VI - 969,218 TRV GP VI - 969,218
TRV GP VI LLC - 969,218

(iii) Sole power to dispose or to direct the disposition of:

TRV V - 0 TRV GP V - 0 TRV GP V LLC - 0 TRV VI - 0 TRV GP VI - 0 TRV GP VI LLC - 0

(iv) Shared power to dispose or to direct the disposition of:

TRV V - 6,280,525 TRV GP V - 6,280,525 TRV GP V LLC - 6,280,525 TRV VI - 969,218 TRV GP VI - 969,218
TRV GP VI LLC - 969,218

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

Item 6. Ownership of more than 5 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. Certifications:

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.

Third Rock Ventures V, L.P.

Signature: By: THIRD ROCK VENTURES GP V, L.P.,
General Partner, By: TRV GP V, LLC, General
Partner, By: /s/ Kevin Gillis

Name/Title: Kevin Gillis, Chief Operating Officer

Date: 08/14/2026

Third Rock Ventures GP V, L.P.

Signature: By: TRV GP V, LLC, General Partner, By: /s/
Kevin Gillis

Name/Title: Kevin Gillis, Chief Operating Officer

Date: 08/14/2026

TRV GP V, LLC

Signature: By: /s/ Kevin Gillis

Name/Title: Kevin Gillis, Chief Operating Officer

Date: 08/14/2026

Third Rock Ventures VI, L.P.

Signature: By: THIRD ROCK VENTURES GP VI, L.P.,
General Partner, By: TRV GP VI, LLC, General
Partner, By: /s/ Kevin Gillis
Name/Title: Kevin Gillis, Chief Operating Officer
Date: 08/14/2026

Third Rock Ventures GP VI, L.P.

Signature: By: TRV GP VI, LLC, General Partner, By: /s/
Kevin Gillis
Name/Title: Kevin Gillis, Chief Operating Officer
Date: 08/14/2026

TRV GP VI, LLC

Signature: By: /s/ Kevin Gillis
Name/Title: Kevin Gillis, Chief Operating Officer
Date: 08/14/2026