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

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**SCHEDULE 13G**  
**Under the Securities Exchange Act of 1934**

(Amendment No. \_\_)\*

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**Rapport Therapeutics, Inc.**

(Name of Issuer)

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**Common Stock par value \$0.001 per share**

(Title of Class of Securities)

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**75383L102**

(CUSIP Number)

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**September 30, 2024**

(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 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).

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<b>1</b>	NAMES OF REPORTING PERSON(S) <b>ARCH Venture Fund XII, L.P.</b>		
<b>2</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>		
<b>3</b>	SEC USE ONLY		
<b>4</b>	CITIZENSHIP OR PLACE OF ORGANIZATION <b>Delaware</b>		
<b>NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH</b>	<b>5</b>	SOLE VOTING POWER <b>0</b>	
	<b>6</b>	SHARED VOTING POWER <b>3,728,738</b>	
	<b>7</b>	SOLE DISPOSITIVE POWER <b>0</b>	
	<b>8</b>	SHARED DISPOSITIVE POWER <b>3,728,738</b>	
<b>9</b>	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON <b>3,728,738</b>		
<b>10</b>	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/>		
<b>11</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) <b>10.2%</b>		
<b>12</b>	TYPE OF REPORTING PERSON <b>PN</b>		

1	NAMES OF REPORTING PERSON(S)  <b>ARCH Venture Partners XII, L.P.</b>	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP <span style="float: right;">(a) <input type="checkbox"/></span> <span style="float: right;">(b) <input type="checkbox"/></span>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION  <b>Delaware</b>	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER  <b>0</b>
	6	SHARED VOTING POWER  <b>3,728,738</b>
	7	SOLE DISPOSITIVE POWER  <b>0</b>
	8	SHARED DISPOSITIVE POWER  <b>3,728,738</b>
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  <b>3,728,738</b>	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <span style="float: right;"><input type="checkbox"/></span>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)  <b>10.2%</b>	
12	TYPE OF REPORTING PERSON  <b>PN</b>	

1	NAMES OF REPORTING PERSON(S)  <b>ARCH Venture Partners XII, LLC</b>	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP <span style="float: right;">(a) <input type="checkbox"/></span> <span style="float: right;">(b) <input type="checkbox"/></span>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION  <b>Delaware</b>	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER  <b>0</b>
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	7	SOLE DISPOSITIVE POWER  <b>0</b>
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10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <span style="float: right;"><input type="checkbox"/></span>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)  <b>10.2%</b>	
12	TYPE OF REPORTING PERSON  <b>OO</b>	

<b>1</b>	NAMES OF REPORTING PERSON(S)  <b>Keith Crandell</b>		
<b>2</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP <span style="float: right;">(a) <input type="checkbox"/></span> <span style="float: right;">(b) <input type="checkbox"/></span>		
<b>3</b>	SEC USE ONLY		
<b>4</b>	CITIZENSHIP OR PLACE OF ORGANIZATION  <b>United States of America</b>		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	<b>5</b>	SOLE VOTING POWER  <b>0</b>	
	<b>6</b>	SHARED VOTING POWER  <b>3,728,738</b>	
	<b>7</b>	SOLE DISPOSITIVE POWER  <b>0</b>	
	<b>8</b>	SHARED DISPOSITIVE POWER  <b>3,728,738</b>	
<b>9</b>	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  <b>3,728,738</b>		
<b>10</b>	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <span style="float: right;"><input type="checkbox"/></span>		
<b>11</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)  <b>10.2%</b>		
<b>12</b>	TYPE OF REPORTING PERSON  <b>IN</b>		

<b>1</b>	NAMES OF REPORTING PERSON(S)  <b>Steven Gillis</b>		
<b>2</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP <span style="float: right;">(a) <input type="checkbox"/></span> <span style="float: right;">(b) <input type="checkbox"/></span>		
<b>3</b>	SEC USE ONLY		
<b>4</b>	CITIZENSHIP OR PLACE OF ORGANIZATION  <b>United States of America</b>		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	<b>5</b>	SOLE VOTING POWER  <b>0</b>	
	<b>6</b>	SHARED VOTING POWER  <b>3,728,738</b>	
	<b>7</b>	SOLE DISPOSITIVE POWER  <b>0</b>	
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<b>11</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)  <b>10.2%</b>		
<b>12</b>	TYPE OF REPORTING PERSON  <b>IN</b>		

<b>1</b>	NAMES OF REPORTING PERSON(S)  <b>Kristina Burow</b>		
<b>2</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP <span style="float: right;">(a) <input type="checkbox"/></span> <span style="float: right;">(b) <input type="checkbox"/></span>		
<b>3</b>	SEC USE ONLY		
<b>4</b>	CITIZENSHIP OR PLACE OF ORGANIZATION  <b>United States of America</b>		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	<b>5</b>	SOLE VOTING POWER  <b>0</b>	
	<b>6</b>	SHARED VOTING POWER  <b>3,728,738</b>	
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<b>11</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)  <b>10.2%</b>		
<b>12</b>	TYPE OF REPORTING PERSON  <b>IN</b>		

<b>1</b>	NAMES OF REPORTING PERSON(S) <b>Robert Nelsen</b>		
<b>2</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>		
<b>3</b>	SEC USE ONLY		
<b>4</b>	CITIZENSHIP OR PLACE OF ORGANIZATION <b>United States of America</b>		
<b>NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH</b>	<b>5</b>	SOLE VOTING POWER <b>0</b>	
	<b>6</b>	SHARED VOTING POWER <b>3,728,738</b>	
	<b>7</b>	SOLE DISPOSITIVE POWER <b>0</b>	
	<b>8</b>	SHARED DISPOSITIVE POWER <b>3,728,738</b>	
<b>9</b>	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON <b>3,728,738</b>		
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<b>11</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) <b>10.2%</b>		
<b>12</b>	TYPE OF REPORTING PERSON <b>IN</b>		



**Item 1(a).** Name of Issuer

Rapport Therapeutics, Inc. (the "Issuer").

**Item 1(b).** Address of Issuer's Principal Executive Offices

1325 Boylston Street, Suite 401, Boston, MA 02215

**Item 2(a).** Name of Person Filing

ARCH Venture Fund XII, L.P. ("AVF XII"); ARCH Venture Partners XII, L.P. ("AVP XII LP"); ARCH Venture Partners XII, LLC ("AVP XII LLC") (collectively, the "Reporting Entities" and individually, each a "Reporting Entity"); and Keith Crandell ("Crandell"), Robert Nelsen ("Nelsen"), Kristina Burow ("Burow") and Steven Gillis ("Gillis") (collectively, the "Investment Committee" and individually, each a "Committee Member"). The Reporting Entities and the Committee Members collectively are referred to as the "Reporting Persons".

**Item 2(b).** Address of Principal Business Office or, if none, Residence

8755 W. Higgins Road, Suite 1025, Chicago, IL 60631

**Item 2(c).** Citizenship

Each of AVF XII and AVP XII LP are limited partnerships organized under the laws of the State of Delaware. AVP XII LLC is a limited liability company organized under the laws of the State of Delaware. Each Committee Member is a US citizen.

**Item 2(d).** Title of Class of Securities

Common stock, par value \$0.001 per share.

**Item 2(e).** CUSIP Number

75383L102

**Item 3.** If this statement is filed pursuant to Rule 13d-1(b), or 13d-2(b) or (c), Check Whether the Person Filing is a:

Not Applicable.

**Item 4.** Ownership

(a) Amount beneficially owned:

AVF XII is the record owner of 3,728,738 shares of Common Stock (the "Record Shares") as of September 30, 2024. AVP XII LP, as the sole general partner of AVF XII, may be deemed to beneficially own the AVF XII Shares. AVP XII LLC, as the sole general partner of AVP XII LP may be deemed to beneficially own the Record Shares. As committee members of AVP XII LLC, each Committee Member may also be deemed to share the power to direct the disposition and vote of the Record Shares.

(b) Percent of class:

See line 11 of the cover sheets. The percentages set forth on the cover sheet for each Reporting Person is based upon 36,576,457 shares of common stock outstanding as of November 6, 2024, as reported on the Issuer's Form 10-Q as filed with the Securities and Exchange Commission on November 7, 2024.

- (c) Number of shares as to which such person has:
- (i) Sole power to vote or to direct the vote:  
See line 5 of the cover sheets.
  - (ii) Shared power to vote or to direct the vote:  
See line 6 of the cover sheets.
  - (iii) Sole power to dispose or to direct the disposition:  
See line 7 of the cover sheets.
  - (iv) Shared power to dispose or to direct the disposition:  
See line 8 of the cover sheets.

Each Reporting Person disclaims beneficial ownership of such shares of Common Stock except for the shares, if any, such Reporting Person holds of record.

**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.**

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.

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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: November 14, 2024

ARCH VENTURE FUND XII, L.P.

By: ARCH Venture Partners XII, L.P.  
its General Partner

By: ARCH Venture Partners XII, LLC  
its General Partner

By: \_\_\_\_\_  
\*  
Keith Crandell  
Managing Director

ARCH VENTURE PARTNERS XII, L.P.

By: ARCH Venture Partners XII, LLC  
its General Partner

By: \_\_\_\_\_  
\*  
Keith Crandell  
Managing Director

ARCH VENTURE PARTNERS XII, LLC

By: \_\_\_\_\_  
\*  
Keith Crandell  
Managing Director

\_\_\_\_\_  
\*  
Keith Crandell

\_\_\_\_\_  
\*  
Robert Nelsen

\_\_\_\_\_  
\*  
Kristina Burow

\_\_\_\_\_  
\*  
Steven Gillis

\* By: /s/ Mark McDonnell  
Mark McDonnell as  
Attorney-in-Fact

\* This Schedule 13G was executed by Mark McDonnell pursuant to a Power of Attorney filed as Exhibit 24 to the Form 3 relating to the beneficial ownership of shares of Neumora Therapeutics, Inc. by the Reporting Persons filed with the Securities Exchange Commission on September 14, 2023 and incorporated herein in its entirety by reference.

AGREEMENT

Pursuant to Rule 13d-1-(k)(1) under the Securities Exchange Act of 1934, the undersigned hereby agree that only one statement containing the information required by Schedule 13G need be filed with respect to the ownership by each of the undersigned of shares of stock of Rapport Therapeutics, Inc.

This Agreement may be executed in any number of counterparts, each of which shall be deemed an original.

Dated: November 14, 2024

ARCH VENTURE FUND XII, L.P.

By: ARCH Venture Partners XII, L.P.  
its General Partner

By: ARCH Venture Partners XII, LLC  
its General Partner

By: \_\_\_\_\_  
\*  
Keith Crandell  
Managing Director

ARCH VENTURE PARTNERS XII, L.P.

By: ARCH Venture Partners XII, LLC  
its General Partner

By: \_\_\_\_\_  
\*  
Keith Crandell  
Managing Director

ARCH VENTURE PARTNERS XII, LLC

By: \_\_\_\_\_  
\*  
Keith Crandell  
Managing Director

\_\_\_\_\_  
\*  
Keith Crandell

\_\_\_\_\_  
\*  
Robert Nelsen

\_\_\_\_\_  
\*  
Kristina Burow

\_\_\_\_\_  
\*  
Steven Gillis

\* By: /s/ Mark McDonnell  
Mark McDonnell as  
Attorney-in-Fact

\* This Agreement of Joint Filing was executed by Mark McDonnell pursuant to a Power of Attorney filed as Exhibit 24 to the Form 3 relating to the beneficial ownership of shares of Neumora Therapeutics, Inc. by the Reporting Persons filed with the Securities Exchange Commission on September 14,

2023 and incorporated herein in its entirety by reference.

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