SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934

(Amendment No. 5)*

Lyell Immunopharma, Inc.

(Name of Issuer)

Common Stock par value $0.0001 per share

(Title of Class of Securities)

(CUSIP Number)

11/04/2026

(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 ARCH Venture Fund IX, L.P.
2	Check the appropriate box if a member of a Group (see instructions) ☐ (a) ☐ (b)
3	Sec Use Only
4	Citizenship or Place of Organization DELAWARE

Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power 0.00
	6	Shared Voting Power 5,568,424.00
	7	Sole Dispositive Power 0.00
	8	Shared Dispositive Power 5,568,424.00
9		Aggregate Amount Beneficially Owned by Each Reporting Person 5,568,424.00
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) 17.4 %
12		Type of Reporting Person (See Instructions) PN

SCHEDULE 13G

CUSIP No.

1		Names of Reporting Persons ARCH Venture Fund IX Overage, L.P.
2		Check the appropriate box if a member of a Group (see instructions) ☐ (a) ☐ (b)
3		Sec Use Only
4		Citizenship or Place of Organization DELAWARE
Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power 0.00
	6	Shared Voting Power 5,568,424.00
	7	Sole Dispositive Power 0.00
	8	Shared Dispositive Power 5,568,424.00
9		Aggregate Amount Beneficially Owned by Each Reporting Person 5,568,424.00
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) 17.4 %
12	Type of Reporting Person (See Instructions) PN

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons ARCH Venture Fund XIII, L.P.
2	Check the appropriate box if a member of a Group (see instructions) ☐ (a) ☐ (b)
3	Sec Use Only
4	Citizenship or Place of Organization DELAWARE
Number of Shares Beneficially Owned by Each Reporting Person With:	5 Sole Voting Power 0.00
	6 Shared Voting Power 5,568,424.00
	7 Sole Dispositive Power 0.00
	8 Shared Dispositive Power 5,568,424.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person 5,568,424.00
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) 17.4 %
12	Type of Reporting Person (See Instructions) PN

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons ARCH Venture Partners IX, L.P.
2	Check the appropriate box if a member of a Group (see instructions)

	☐ (a) ☐ (b)	
3	Sec Use Only	
4	Citizenship or Place of Organization DELAWARE	
Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power 0.00
	6	Shared Voting Power 5,568,424.00
	7	Sole Dispositive Power 0.00
	8	Shared Dispositive Power 5,568,424.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person 5,568,424.00	
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) 17.4 %	
12	Type of Reporting Person (See Instructions) PN	

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons ARCH Venture Partners IX Overage, L.P.	
2	Check the appropriate box if a member of a Group (see instructions) ☐ (a) ☐ (b)	
3	Sec Use Only	
4	Citizenship or Place of Organization DELAWARE	
Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power 0.00
	6	Shared Voting Power 5,568,424.00
	7	Sole Dispositive Power 0.00
	8	Shared Dispositive Power

5,568,424.00

Aggregate Amount Beneficially Owned by Each Reporting Person

9

5,568,424.00

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

17.4 %

Type of Reporting Person (See Instructions)

12

PN

SCHEDULE 13G

CUSIP No.

Names of Reporting Persons

1

ARCH Venture Partners IX, LLC

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

6 Shared Voting Power

5,568,424.00

7 Sole Dispositive Power

0.00

8 Shared Dispositive Power

5,568,424.00

Aggregate Amount Beneficially Owned by Each Reporting Person

9

5,568,424.00

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

17.4 %

Type of Reporting Person (See Instructions)

12

OO

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons ARCH Venture Partners XIII, L.P.	
2	Check the appropriate box if a member of a Group (see instructions) ☐ (a) ☐ (b)	
3	Sec Use Only	
4	Citizenship or Place of Organization DELAWARE	
Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power 0.00
	6	Shared Voting Power 5,568,424.00
	7	Sole Dispositive Power 0.00
	8	Shared Dispositive Power 5,568,424.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person 5,568,424.00	
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) 17.4 %	
12	Type of Reporting Person (See Instructions) PN	

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons ARCH Venture Partners XIII, LLC	
2	Check the appropriate box if a member of a Group (see instructions) ☐ (a) ☐ (b)	
3	Sec Use Only	
4	Citizenship or Place of Organization DELAWARE	
Number of Shares Beneficially Owned by Each	5	Sole Voting Power 0.00
	6	Shared Voting Power

Reporting Person With:		5,568,424.00
	7	Sole Dispositive Power 0.00
	8	Shared Dispositive Power 5,568,424.00
	9	Aggregate Amount Beneficially Owned by Each Reporting Person 5,568,424.00
	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) 17.4 %
	12	Type of Reporting Person (See Instructions) OO

SCHEDULE 13G

CUSIP No.

	1	Names of Reporting Persons Keith Crandell
	2	Check the appropriate box if a member of a Group (see instructions) ☐ (a) ☐ (b)
	3	Sec Use Only
	4	Citizenship or Place of Organization UNITED STATES
Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power 0.00
	6	Shared Voting Power 5,568,424.00
	7	Sole Dispositive Power 0.00
	8	Shared Dispositive Power 5,568,424.00
	9	Aggregate Amount Beneficially Owned by Each Reporting Person 5,568,424.00
	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) 17.4 %
	12	Type of Reporting Person (See Instructions)

IN

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons Clinton Bybee	
2	Check the appropriate box if a member of a Group (see instructions) ☐ (a) ☐ (b)	
3	Sec Use Only	
4	Citizenship or Place of Organization UNITED STATES	
Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power 0.00
	6	Shared Voting Power 1,820,634.00
	7	Sole Dispositive Power 0.00
	8	Shared Dispositive Power 1,820,634.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person 1,820,634.00	
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) 5.7 %	
12	Type of Reporting Person (See Instructions) IN	

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons Robert Nelsen
2	Check the appropriate box if a member of a Group (see instructions) ☐ (a) ☐ (b)
3	Sec Use Only

4	Citizenship or Place of Organization UNITED STATES	
Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power 0.00
	6	Shared Voting Power 5,568,424.00
	7	Sole Dispositive Power 0.00
	8	Shared Dispositive Power 5,568,424.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person 5,568,424.00	
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) 17.4 %	
12	Type of Reporting Person (See Instructions) IN	

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons Kristina Burow	
2	Check the appropriate box if a member of a Group (see instructions) ☐ (a) ☐ (b)	
3	Sec Use Only	
4	Citizenship or Place of Organization UNITED STATES	
Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power 0.00
	6	Shared Voting Power 5,568,424.00
	7	Sole Dispositive Power 0.00
	8	Shared Dispositive Power 5,568,424.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person 5,568,424.00	

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)

17.4 %

12 Type of Reporting Person (See Instructions)

IN

SCHEDULE 13G

CUSIP No.

1 Names of Reporting Persons

Steven Gillis

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

☐ (a)
☐ (b)

3 Sec Use Only

4 Citizenship or Place of Organization

UNITED STATES

Number of Shares Beneficially Owned by Each Reporting Person With:

5 Sole Voting Power

0.00

6 Shared Voting Power

5,568,424.00

7 Sole Dispositive Power

0.00

8 Shared Dispositive Power

5,568,424.00

9 Aggregate Amount Beneficially Owned by Each Reporting Person

5,568,424.00

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)

17.4 %

12 Type of Reporting Person (See Instructions)

IN

SCHEDULE 13G

CUSIP No.

1 Names of Reporting Persons

	Paul Berns	
	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	UNITED STATES	
Number of Shares Beneficially Owned by Each Reporting Person With:	5 Sole Voting Power	0.00
	6 Shared Voting Power	3,747,790.00
	7 Sole Dispositive Power	0.00
	8 Shared Dispositive Power	3,747,790.00
	Aggregate Amount Beneficially Owned by Each Reporting Person	
9	3,747,790.00	
	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	11.7 %	
	Type of Reporting Person (See Instructions)	
12	IN	

SCHEDULE 13G

Item 1.

(a) Name of issuer:

Lyell Immunopharma, Inc.

(b) Address of issuer's principal executive offices:

201 Haskins Way, South San Francisco, CA 94080

Item 2.

(a) Name of person filing:

ARCH Venture Fund IX, L.P. ("AVF IX"); ARCH Venture Partners IX, L.P. ("AVP IX LP"); ARCH Venture Partners IX, LLC ("AVP IX LLC"); ARCH Venture Fund IX Overage, L.P. ("AVF IX Overage"); ARCH Venture Partners IX Overage, L.P. ("AVF IX Overage GP"); ARCH Venture Fund XIII, L.P. ("AVF XIII"); ARCH Venture Partners XIII, L.P. ("AVP XIII LP"); ARCH Venture Partners XIII, LLC ("AVP XIII LLC") (collectively, the "Reporting Entities" and individually, each a "Reporting Entity"); and Keith Crandell ("Crandell"), Robert Nelsen ("Nelsen") and Clinton Bybee ("Bybee") (collectively, the "IX Managing Directors" and individually, each an "IX Managing Director"), Steven Gillis ("Gillis") and Kristina Burow ("Burow"), along with Nelsen and Crandell, collectively the "IX Investment Committee" and individually "IX Committee Members"; and Paul Berns ("Berns"), along with Nelsen, Crandell, Gillis, and Burow, collectively the "XIII Investment Committee" and individually "XIII Committee Members". The Reporting Entities, IX Managing Directors, IX Committee Members, and XIII Committee Members collectively are referred to as the "Reporting Persons". The Reporting Persons are filing this report with respect to shares of Common Stock, par value $0.0001 per share (the "Common Stock") of Lyell Immunopharma, Inc. (the "Issuer").

(b) Address or principal business office or, if none, residence:

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

Citizenship:

(c) Each of AVF IX, AVP IX LP, AVF IX Overage, AVF IX Overage GP, AVF XIII and AVP XIII LP is a limited partnership organized under the laws of the State of Delaware. AVP IX LLC and AVP XIII LLC are each a limited liability company organized under the laws of the State of Delaware. Each IX Managing Director, IX Committee Member, and XIII Committee Member is a US citizen.

(d) Title of class of securities:

Common Stock par value $0.0001 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

(a) Amount beneficially owned:

AVF IX is the record owner of 910,317 shares of Common Stock (the "AVF IX Shares") as of November 4, 2026. AVP IX LP, as the sole general partner of AVF IX, may be deemed to beneficially own the AVF IX Shares. AVF IX Overage is the record owner of 910,317 shares of Common Stock (the "AVF IX Overage Shares") as of November 4, 2026. AVF IX Overage GP, as the sole general partner of AVF IX Overage, may be deemed to beneficially own the AVF IX Overage Shares. The AVF IX Shares and the AVF IX Overage Shares are collectively referred to as the IX Record Shares. AVF XIII is the record owner of 3,747,790 shares of Common Stock (the "XIII Record Shares") as of November 4, 2026. AVP XIII LP, as the sole general partner of AVF XIII, may be deemed to beneficially own the XIII Record Shares. AVP IX LLC, as the sole general partner of AVP IX LP and AVF IX Overage GP, may be deemed to beneficially own the IX Record Shares. As managing directors and investment committee members of AVP IX LLC, each IX Managing Director and IX Committee Member may also be deemed to share the power to direct the disposition and vote of the IX Record Shares. AVP XIII LLC, as the sole general partner of AVP XIII LP, may be deemed to beneficially own the XIII Record Shares. As investment committee members of AVP XIII LLC, XIII Committee Members may also be deemed to share the power to direct the disposition and vote of the XIII Record Shares. The information required by Item 4(b) is incorporated by reference to Row 11 of the cover pages hereto. The percentages set forth on the cover sheet for each Reporting Person are based upon 24,585,565 shares of Common Stock outstanding as of October 30, 2026, plus 7,428,040 shares of Common Stock sold by the Issuer in a private placement transaction on November 4, 2026, as reported on the Issuer's Quarterly Report on Form 10-Q as filed with the Securities and Exchange Commission on November 4, 2026. Each Reporting Person disclaims beneficial ownership of such shares of Common Stock except for the shares, if any, such Reporting Person holds of record.

(b) Percent of class:

See row 11 of the cover pages. %

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

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

See row 5 of the cover pages.

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

See row 6 of the cover pages.

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

See row 7 of the cover pages.

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

See row 8 of the cover pages.

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:
By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect, other than activities solely in connection with a nomination under § 240.14a-11.

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.

ARCH Venture Fund IX, L.P.

Signature: /s/ ARCH Venture Partners IX, L.P.
Name/Title: its General Partner
Date: 11/10/2026

Signature: /s/ ARCH Venture Partners IX, LLC
Name/Title: its General Partner
Date: 11/10/2026

Signature: /s/ Mark McDonnell
Name/Title: Mark McDonnell as Attorney-in-Fact for Keith Crandell, Managing Director
Date: 11/10/2026

ARCH Venture Fund IX Overage, L.P.

Signature: /s/ ARCH Venture Partners IX Overage, L.P.
Name/Title: its General Partner
Date: 11/10/2026

Signature: /s/ ARCH Venture Partners IX, LLC
Name/Title: its General Partner
Date: 11/10/2026

Signature: /s/ Mark McDonnell
Name/Title: Mark McDonnell as Attorney-in-Fact for Keith Crandell, Managing Director
Date: 11/10/2026

ARCH Venture Fund XIII, L.P.

Signature: /s/ ARCH Venture Partners XIII, L.P.
Name/Title: its General Partner
Date: 11/10/2026

Signature: /s/ ARCH Venture Partners XIII, LLC
Name/Title: its General Partner
Date: 11/10/2026

Signature: /s/ Mark McDonnell
Name/Title: Mark McDonnell as Attorney-in-Fact for Keith Crandell, Managing Director
Date: 11/10/2026

ARCH Venture Partners IX, L.P.

Signature: /s/ ARCH Venture Partners IX, LLC
Name/Title: its General Partner
Date: 11/10/2026

Signature: /s/ Mark McDonnell
Name/Title: Mark McDonnell as Attorney-in-Fact for Keith Crandell, Managing Director
Date: 11/10/2026

ARCH Venture Partners IX Overage, L.P.

Signature: /s/ ARCH Venture Partners IX, LLC
Name/Title: its General Partner
Date: 11/10/2026

Signature: /s/ Mark McDonnell
Name/Title: Mark McDonnell as Attorney-in-Fact for Keith Crandell, Managing Director
Date: 11/10/2026

ARCH Venture Partners IX, LLC

Signature: /s/ Mark McDonnell
Name/Title: Mark McDonnell as Attorney-in-Fact for Keith Crandell, Managing Director
Date: 11/10/2026

ARCH Venture Partners XIII, L.P.

Signature: /s/ ARCH Venture Partners XIII, LLC
Name/Title: its General Partner
Date: 11/10/2026

Signature: /s/ Mark McDonnell
Name/Title: Mark McDonnell as Attorney-in-Fact for Keith Crandell, Managing Director
Date: 11/10/2026

ARCH Venture Partners XIII, LLC

Signature: /s/ Mark McDonnell
Name/Title: Mark McDonnell as Attorney-in-Fact for Keith Crandell, Managing Director
Date: 11/10/2026

Keith Crandell

Signature: /s/ Mark McDonnell
Name/Title: Mark McDonnell as Attorney-in-Fact for Keith Crandell
Date: 11/10/2026

Clinton Bybee

Signature: /s/ Mark McDonnell
Name/Title: Mark McDonnell as Attorney-in-Fact for Clinton Bybee
Date: 11/10/2026

Robert Nelsen

Signature: /s/ Mark McDonnell
Name/Title: Mark McDonnell as Attorney-in-Fact for Robert Nelsen
Date: 11/10/2026

Kristina Burow

Signature: /s/ Mark McDonnell
Name/Title: Mark McDonnell as Attorney-in-Fact for Kristina Burow
Date: 11/10/2026

Steven Gillis

Signature: /s/ Mark McDonnell
Name/Title: Mark McDonnell as Attorney-in-Fact for Steven Gillis
Date: 11/10/2026

Paul Berns

Signature: /s/ Mark McDonnell
Name/Title: Mark McDonnell as Attorney-in-Fact for Paul Berns
Date: 11/10/2026

Comments accompanying signature: * 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 Gossamer Bio, Inc. by the Reporting Persons filed with the Securities and Exchange Commission on February 7, 2019 and incorporated herein in its entirety by reference.