
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934

(Amendment No. 4)*

Olema Pharmaceuticals, Inc.

(Name of Issuer)

Common Stock, par value \$0.0001 per share

(Title of Class of Securities)

(CUSIP Number)

JAMES KRATKY
BVF PARTNERS L.P., 44 Montgomery St., 40th Floor
San Francisco, CA, 94104
415-525-8830

KEN SCHLESINGER & IAN ENGORON
OLSHAN FROME WOLOSKY LLP, 1325 Avenue of the Americas
New York, NY, 10019
212-451-2300

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

10/14/2026

(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. ☐

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).

SCHEDULE 13D

CUSIP No.

1	Name of reporting person
	BIOTECHNOLOGY VALUE FUND L P
	Check the appropriate box if a member of a Group (See Instructions)
2	☐ (a)
	☐ (b)
3	SEC use only
	Source of funds (See Instructions)
4	WC
	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)
5	☐
	Citizenship or place of organization
6	DELAWARE
	Sole Voting Power
7	0.00
Number of	Shared Voting Power
Shares	
Beneficially	8
Owned by	5,946,981.00
Each	Sole Dispositive Power
Reporting	9
Person	0.00
With:	Shared Dispositive Power
	10
	5,946,981.00
	Aggregate amount beneficially owned by each reporting person
11	5,946,981.00
	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)
12	☐
	Percent of class represented by amount in Row (11)
13	6.6 %
	Type of Reporting Person (See Instructions)
14	PN

SCHEDULE 13D

CUSIP No.

	Name of reporting person
1	BVF I GP LLC
	Check the appropriate box if a member of a Group (See Instructions)
2	☐ (a)
	☐ (b)
3	SEC use only
	Source of funds (See Instructions)
4	AF
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

	☐	Citizenship or place of organization
6		DELAWARE
		Sole Voting Power
	7	0.00
Number of Shares Beneficially Owned by Each Reporting Person With:		Shared Voting Power
	8	5,946,981.00
		Sole Dispositive Power
	9	0.00
		Shared Dispositive Power
	10	5,946,981.00
		Aggregate amount beneficially owned by each reporting person
11		5,946,981.00
12		Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)
	☐	
		Percent of class represented by amount in Row (11)
13		6.6 %
		Type of Reporting Person (See Instructions)
14		OO

SCHEDULE 13D

CUSIP No.

		Name of reporting person
1		BIOTECHNOLOGY VALUE FUND II LP
		Check the appropriate box if a member of a Group (See Instructions)
2	☐ (a)	
	☐ (b)	
3		SEC use only
		Source of funds (See Instructions)
4		WC
		Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)
5	☐	
		Citizenship or place of organization
6		DELAWARE
Number of Shares Beneficially Owned by Each Reporting Person With:		Sole Voting Power
	7	0.00
		Shared Voting Power
	8	2,356,800.00
		Sole Dispositive Power
	9	0.00

10 Shared Dispositive Power

2,356,800.00

Aggregate amount beneficially owned by each reporting person

2,356,800.00

Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)

☐

Percent of class represented by amount in Row (11)

2.7 %

Type of Reporting Person (See Instructions)

PN

SCHEDULE 13D

CUSIP No.

Name of reporting person

BVF II GP LLC

Check the appropriate box if a member of a Group (See Instructions)

☐

(a)

☐

(b)

SEC use only

Source of funds (See Instructions)

AF

Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

☐

Citizenship or place of organization

DELAWARE

Sole Voting Power

7

0.00

Number of
Shares

Shared Voting Power

Beneficially

8

2,356,800.00

Owned by

Sole Dispositive Power

Each

9

0.00

Reporting

Person

With:

Shared Dispositive Power

10

2,356,800.00

Aggregate amount beneficially owned by each reporting person

2,356,800.00

Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)

☐

Percent of class represented by amount in Row (11)

2.7 %

Type of Reporting Person (See Instructions)

SCHEDULE 13D

CUSIP No.

1	Name of reporting person
	Biotechnology Value Trading Fund OS LP
	Check the appropriate box if a member of a Group (See Instructions)
2	☐ (a)
	☐ (b)
3	SEC use only
4	Source of funds (See Instructions)
	WC
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)
	☐
6	Citizenship or place of organization
	CAYMAN ISLANDS
7	Sole Voting Power
Number of	0.00
Shares	Shared Voting Power
Beneficially	8
Owned by	347,970.00
Each	Sole Dispositive Power
Reporting	9
Person	0.00
With:	Shared Dispositive Power
	10
	347,970.00
11	Aggregate amount beneficially owned by each reporting person
	347,970.00
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)
	☐
13	Percent of class represented by amount in Row (11)
	0.4 %
14	Type of Reporting Person (See Instructions)
	PN

SCHEDULE 13D

CUSIP No.

1	Name of reporting person
---	--------------------------

BVF Partners OS Ltd.

Check the appropriate box if a member of a Group (See Instructions)

2

☐ (a)

☐ (b)

3

SEC use only

Source of funds (See Instructions)

4

AF

Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

5

☐

Citizenship or place of organization

6

CAYMAN ISLANDS

Sole Voting Power

7

0.00

Number of
Shares

Shared Voting Power

Beneficially 8

Owned by

347,970.00

Each

Sole Dispositive Power

Reporting 9

Person

0.00

With:

Shared Dispositive Power

10

347,970.00

Aggregate amount beneficially owned by each reporting person

11

347,970.00

Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)

12

☐

Percent of class represented by amount in Row (11)

13

0.4 %

Type of Reporting Person (See Instructions)

14

CO

SCHEDULE 13D

CUSIP No.

Name of reporting person

1

BVF GP HOLDINGS LLC

Check the appropriate box if a member of a Group (See Instructions)

2

☐ (a)

☐ (b)

3

SEC use only

Source of funds (See Instructions)

4

AF

Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

5

☐

6

Citizenship or place of organization

DELAWARE

Sole Voting Power

7

0.00

Number of
Shares

Shared Voting Power

Beneficially 8

8,303,781.00

Owned by

Each

Sole Dispositive Power

Reporting 9

Person

0.00

With:

Shared Dispositive Power

10

8,303,781.00

Aggregate amount beneficially owned by each reporting person

11

8,303,781.00

Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)

12



Percent of class represented by amount in Row (11)

13

9.1 %

Type of Reporting Person (See Instructions)

14

OO

SCHEDULE 13D

CUSIP No.

Name of reporting person

1

BVF PARTNERS L P/IL

Check the appropriate box if a member of a Group (See Instructions)

2



(a)



(b)

3

SEC use only

Source of funds (See Instructions)

4

AF

Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

5



Citizenship or place of organization

6

DELAWARE

Number of
Shares

Sole Voting Power

7

Beneficially

0.00

Owned by

Shared Voting Power

Each

8

8,939,731.00

Reporting

Person

Sole Dispositive Power

With:

9

0.00

10 Shared Dispositive Power

	8,939,731.00
11	Aggregate amount beneficially owned by each reporting person
	8,939,731.00
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)
	☐
13	Percent of class represented by amount in Row (11)
	9.8 %
14	Type of Reporting Person (See Instructions)
	IA, PN

SCHEDULE 13D

CUSIP No.

1	Name of reporting person
	BVF INC/IL
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
	DELAWARE
7	Sole Voting Power
Number of Shares Beneficially Owned by Each Reporting Person With:	0.00
	Shared Voting Power
8	8,939,731.00
	Sole Dispositive Power
9	0.00
	Shared Dispositive Power
10	8,939,731.00
11	Aggregate amount beneficially owned by each reporting person
	8,939,731.00
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)
	☐
13	Percent of class represented by amount in Row (11)
	9.8 %
14	Type of Reporting Person (See Instructions)
	CO

SCHEDULE 13D

CUSIP No.

1	Name of reporting person
	LAMPERT MARK N
	Check the appropriate box if a member of a Group (See Instructions)
2	☐ (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
	Sole Voting Power
7	0.00
Number of	Shared Voting Power
Shares	
Beneficially	8
Owned by	8,939,731.00
Each	Sole Dispositive Power
Reporting	9
Person	0.00
With:	Shared Dispositive Power
	10
	8,939,731.00
	Aggregate amount beneficially owned by each reporting person
11	8,939,731.00
	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)
12	☐
	Percent of class represented by amount in Row (11)
13	9.8 %
	Type of Reporting Person (See Instructions)
14	IN

SCHEDULE 13D

CUSIP No.

1	Name of reporting person
	Hrustanovic Gorjan
2	Check the appropriate box if a member of a Group (See Instructions)

	☐ (a)
	☐ (b)
3	SEC use only
	Source of funds (See Instructions)
4	OO
	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)
5	☐
	Citizenship or place of organization
6	UNITED STATES
	Sole Voting Power
7	183,645.00
Number of	Shared Voting Power
Shares	
Beneficially	8 0.00
Owned by	Sole Dispositive Power
Each	
Reporting	9 183,645.00
Person	Shared Dispositive Power
With:	
	10 0.00
	Aggregate amount beneficially owned by each reporting person
11	183,645.00
	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)
12	☐
	Percent of class represented by amount in Row (11)
13	0.2 %
	Type of Reporting Person (See Instructions)
14	IN

SCHEDULE 13D

Item 1. Security and Issuer

Title of Class of Securities:

(a)

Common Stock, par value \$0.0001 per share

Name of Issuer:

(b)

Olema Pharmaceuticals, Inc.

Address of Issuer's Principal Executive Offices:

(c)

780 BRANNAN STREET, SAN FRANCISCO, CALIFORNIA , 94103.

Item 3. Source and Amount of Funds or Other Consideration

Item 3 is hereby amended and restated to read as follows: The securities of the Issuer beneficially owned by BVF, BVF2 and Trading Fund OS and held in the Partners Managed Accounts were purchased with working capital (which may, at any given time, include margin loans made by brokerage firms in the ordinary course of business). The aggregate cost basis of the 2,655,977 Shares directly beneficially owned by BVF is approximately \$13,409,946, excluding brokerage commissions. The aggregate cost basis of the 3,291,004 Pre-Funded Warrants to purchase 3,291,004 Shares owned by BVF is approximately \$36,268,937. The aggregate cost basis of the 2,003,966 Shares directly beneficially owned by BVF2 is approximately \$9,836,430, excluding brokerage commissions. The aggregate cost basis of the 2,627,590 Pre-Funded Warrants to purchase 2,627,590 Shares owned by BVF2 is approximately \$28,963,514. The aggregate cost basis of the 347,970 Shares directly beneficially owned by Trading Fund OS is

approximately \$1,514,411, excluding brokerage commissions. The aggregate cost basis of the 336,288 Pre-Funded Warrants to purchase 336,288 Shares owned by Trading Fund OS is approximately \$3,887,289. The aggregate cost basis of the 287,980 Shares held in the Partners Managed Accounts is approximately \$702,644, excluding brokerage commissions. The aggregate cost basis of the 118,158 Pre-Funded Warrants to purchase 118,158 Shares held in the Partners Managed Accounts is approximately \$1,332,701. The 183,645 Shares beneficially owned by Dr. Hrustanovic consist of Shares issuable to him upon the exercise of stock options exercisable within 60 days hereof that were awarded to him for no consideration in connection with his service on the Issuer's Board. Pursuant to a certain agreement entered into between Partners and Dr. Hrustanovic, Dr. Hrustanovic is obligated to transfer the economic benefit, if any, received upon the sale of the Shares issuable upon exercise of the above referenced stock options to Partners.

Item 4. Purpose of Transaction

Item 4 is hereby amended to add the following: Effective October 14, 2026, Dr. Gorjan Hrustanovic resigned from the Board. Dr. Hrustanovic also resigned from the Compensation Committee of the Board and the Science and Technology Committee of the Board. Dr. Hrustanovic's resignation was not the result of any disagreement with the Issuer on any matter relating to the Issuer's operations, policies or practices.

Item 5. Interest in Securities of the Issuer

- (a) Item 5(a) is hereby amended and restated to read as follows: The aggregate percentage of Shares reported owned by each person named herein is based upon a denominator that is the sum of, (a) with respect to the Reporting Persons other than Dr. Hrustanovic: (i) 87,497,607 Shares outstanding as of August 6, 2026, which is the total number of Shares outstanding as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 10, 2026, and (ii) certain or all of the 3,643,838 Shares underlying the Pre-Funded Warrants held by the Reporting Persons other than Dr. Hrustanovic that are currently exercisable, as applicable, and (b) with respect to Dr. Hrustanovic, the aggregate percentage of Shares reported owned is based on a denominator that is the sum of (i) 87,497,607 Shares, and (ii) 183,645 Shares issuable upon the exercise of certain stock options held by him that are currently exercisable. As of the close of business on the date hereof, the Reporting Persons and one of the Partners Managed Accounts held Pre-Funded Warrants exercisable for an aggregate of 6,373,040 Shares. Each Pre-Funded Warrant is exercisable into one Share and has an exercise price of \$0.0001 per Share. The Pre-Funded Warrants are exercisable immediately and may be exercised at any time until all of the Pre-Funded Warrants are exercised in full. A holder of Pre-Funded Warrants (together with its affiliates and other attribution parties) may not exercise any portion of a Pre-Funded Warrant to the extent that immediately prior to or after giving effect to such exercise the holder would own (together with its affiliates and other attribution parties) more than 9.99% of the Shares outstanding immediately after exercise (the "Pre-Funded Warrants Blocker"). As of the date hereof, the Pre-Funded Warrants Blocker limits the exercise of the Pre-Funded Warrants held by the Reporting Persons and one of the Partners Managed Accounts to 3,643,838 Shares out of the 6,373,040 Shares underlying the Pre-Funded Warrants held by them. As of the close of business on the date hereof, (i) BVF beneficially owned 5,946,981 Shares, including 3,291,004 Shares underlying the Pre-Funded Warrants held by it, representing percentage ownership of approximately 6.6% of the Shares outstanding, (ii) BVF2 beneficially owned 2,356,800 Shares, (a) including 352,834 Shares underlying certain Pre-Funded Warrants held by it and (b) excluding 2,274,756 Shares underlying certain Pre-Funded Warrants held by it, representing percentage ownership of approximately 2.7% of the Shares outstanding, and (iii) Trading Fund OS beneficially owned 347,970 Shares, excluding 336,288 Shares underlying the Pre-Funded Warrants held by it, representing percentage ownership of less than 1% of the Shares outstanding. BVF GP, as the general partner of BVF, may be deemed to beneficially own the 5,946,981 Shares beneficially owned by BVF, representing percentage ownership of approximately 6.6% of the Shares outstanding. BVF2 GP, as the general partner of BVF2, may be deemed to beneficially own the 2,356,800 Shares beneficially owned by BVF2, representing percentage ownership of approximately 2.7% of the Shares outstanding. Partners OS, as the general partner of Trading Fund OS, may be deemed to beneficially own the 347,970 Shares beneficially owned by Trading Fund OS, representing percentage ownership of less than 1% of the Shares outstanding. BVF GPH, as the sole member of each of BVF GP and BVF2 GP, may be deemed to beneficially own the 8,303,781 Shares beneficially owned in the aggregate by BVF and BVF2, representing percentage ownership of approximately 9.1% of the Shares outstanding. Partners, as the investment manager of BVF, BVF2, Trading Fund OS and the Partners Managed Accounts and the sole member of Partners OS, may be deemed to beneficially own the 8,939,731 Shares beneficially owned in the aggregate by BVF, BVF2 and Trading Fund OS and held in the Partners Managed Accounts, representing percentage ownership of approximately 9.8% of the Shares outstanding, which includes 287,980 Shares held in the Partners Managed Accounts, which excludes 118,158 Shares underlying the Pre-Funded Warrants held in one of the Partners Managed Accounts (representing percentage ownership of less than 1% of the Shares outstanding by the Partners Managed Accounts). BVF Inc., as the general partner of Partners, may be deemed to beneficially own the 8,939,731 Shares beneficially owned by Partners, representing percentage ownership of approximately 9.8% of the Shares outstanding. Mr. Lampert, as the sole director and officer of BVF Inc., may be deemed to beneficially own the 8,939,731 Shares beneficially owned by BVF Inc., representing percentage ownership of approximately 9.8% of the Shares outstanding. As of the close of business on the date hereof, Dr. Hrustanovic beneficially owned 183,645 Shares underlying certain stock options that are currently exercisable, representing percentage ownership of less than 1% of the Shares outstanding. The foregoing should not be construed in and of itself as an admission by any Reporting Person as to beneficial ownership of any Shares owned by another Reporting Person. BVF GP disclaims beneficial ownership of the Shares beneficially owned by BVF. BVF2 GP disclaims beneficial ownership of the Shares beneficially owned by BVF2. Partners OS disclaims beneficial ownership of the Shares beneficially owned by Trading Fund OS. BVF GPH disclaims beneficial ownership of the Shares beneficially owned by BVF and BVF2. Each of Partners, BVF Inc. and Mr. Lampert disclaims beneficial ownership of the Shares beneficially owned by

BVF, BVF2 and Trading Fund OS and held in the Partners Managed Accounts. Dr. Hrustanovic disclaims beneficial ownership of the Shares that he does not directly own.

(c)

Item 5(c) is hereby amended and restated to read as follows: None of the Reporting Persons has entered into any transactions in the securities of the Issuer during the past sixty days.

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.

BIOTECHNOLOGY VALUE FUND L P

Signature: /s/ Mark N. Lampert
Name/Title: Mark N. Lampert, Authorized Signatory
Date: 10/16/2026

BVF I GP LLC

Signature: /s/ Mark N. Lampert
Name/Title: Mark N. Lampert, Authorized Signatory
Date: 10/16/2026

BIOTECHNOLOGY VALUE FUND II LP

Signature: /s/ Mark N. Lampert
Name/Title: Mark N. Lampert, Authorized Signatory
Date: 10/16/2026

BVF II GP LLC

Signature: /s/ Mark N. Lampert
Name/Title: Mark N. Lampert, Authorized Signatory
Date: 10/16/2026

Biotechnology Value Trading Fund OS LP

Signature: /s/ Mark N. Lampert
Name/Title: Mark N. Lampert, Authorized Signatory
Date: 10/16/2026

BVF Partners OS Ltd.

Signature: /s/ Mark N. Lampert
Name/Title: Mark N. Lampert, Authorized Signatory
Date: 10/16/2026

BVF GP HOLDINGS LLC

Signature: /s/ Mark N. Lampert
Name/Title: Mark N. Lampert, Authorized Signatory
Date: 10/16/2026

BVF PARTNERS L P/IL

Signature: /s/ Mark N. Lampert
Name/Title: Mark N. Lampert, Authorized Signatory
Date: 10/16/2026

BVF INC/IL

Signature: /s/ Mark N. Lampert
Name/Title: Mark N. Lampert, Authorized Signatory
Date: 10/16/2026

LAMPERT MARK N

Signature: /s/ Mark N. Lampert
Name/Title: Mark N. Lampert
Date: 10/16/2026

Hrustanovic Gorjan

Signature: /s/ Hrutanovic Gorjan

Name/Title: Hrutanovic Gorjan

Date: 10/16/2026