UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

SCHEDULE 13G

(Rule 13d-102)

Information to be Included in Statements Filed Pursuant to § 240.13d-1(b), (c) and (d) and Amendments Thereto Filed Pursuant to § 240.13d-2

> Under the Securities Exchange Act of 1934 (Amendment No.)

OLEMA PHARMACEUTICALS, INC.

(Name of Issuer)

Common Stock, \$0.0001 par value per share (Title of Class of Securities)

> 68062P106 (CUSIP Number)

December 4, 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:

 \Box Rule 13d-1(b)

 \boxtimes Rule 13d-1(c)

 \Box 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, as amended ("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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1	Names	of	Reporting Persons	
	Bain Capital Life Sciences Opportunities IV, L.P.			
2	Check the Appropriate Box if a Member of a Group			
3	(a) \Box SEC Use Only			
5				
4	Citizenship or Place of Organization			
	Delaw			
		5	Sole Voting Power	
N	mber of		0 shares of Common Stock	
	hares	6	Shared Voting Power	
Ben	eficially			
Owned by			7,470,214 shares of Common Stock (1)	
	Each porting	7	Sole Dispositive Power	
	erson		0 shares of Common Stock	
	With		Shared Dispositive Power	
			7,470,214 shares of Common Stock (1)	
9	Aggregate Amount Beneficially Owned by Each Reporting Person			
	7,470,214 shares of Common Stock (1)			
10	Check if the Aggregate Amount in Row (9) Excludes Certain Shares			
11				
11	Percent of Class Represented by Amount in Row 9			
	9.99% (1)			
12	Type of Reporting Person			
	PN			

(1) As of the close of business on December 4, 2024, Bain Capital Life Sciences Opportunities IV, L.P. held 6,500,000 shares of Common Stock and a pre-funded warrant to purchase up to 4,513,216 shares of Common Stock. As a result of the Beneficial Ownership Blocker (as defined below), beneficial ownership of Bain Capital Life Sciences Opportunities IV, L.P. is capped at 9.99% of the outstanding shares of Common Stock, representing 7,470,214 shares of Common Stock calculated as described herein as of December 4, 2024.

The calculation of beneficial ownership is based on (i) 57,297,845 shares of Common Stock issued and outstanding as of November 8, 2024, as reported by the Issuer in its Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 12, 2024; (ii) the issuance of 19,928,875 shares of Common Stock in a private placement that closed on December 4, 2024, as disclosed by the Issuer in its Current Report on Form 8-K filed with the Securities and Exchange Commission on December 2, 2024; (iii) the exchange of 3,420,000 shares of Common Stock that occurred on December 4, 2024, as disclosed by the Issuer in its Current Report on Form 8-K filed with the Securities and Exchange Commission on December 2, 2024; (iii) the exchange of 1,420,000 shares of Common Stock that occurred on December 2, 2024; and (iv) 970,214 shares of Common Stock issuable upon the partial exercise of the pre-funded warrant held by Bain Capital Life Sciences Opportunities IV, L.P., which reflects the Beneficial Ownership Blocker.

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Item 1(a) Name of Issuer

The name of the issuer to which this filing on Schedule 13G relates is Olema Pharmaceuticals, Inc. (the "Issuer").

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

The principal executive offices of the Issuer are located at 780 Brannan Street, San Francisco, California 94103.

Item 2(a) Name of Person Filing

This Schedule 13G is being filed by Bain Capital Life Sciences Opportunities IV, L.P., a Delaware limited partnership (the "Reporting Person").

Bain Capital Life Sciences Investors, LLC, a Delaware limited liability company ("BCLSI"), is the manager of Bain Capital Life Sciences IV General Partner, LLC, a Delaware limited liability company ("BCLS Fund IV GP"), which is the general partner of Bain Capital Life Sciences Fund IV, L.P., a Delaware limited partnership ("BCLS Fund IV"), which is the sole member of Bain Capital Life Sciences Opportunities IV GP, LLC, a Delaware limited liability company (together with the Reporting Person, BCLSI, BCLS Fund IV GP and BCLS Fund IV, the "Bain Capital Life Sciences Entities"), which is the general partner of the Reporting Person. As a result, BCLSI may be deemed to share voting and dispositive power with respect to the securities held by the Reporting Person.

Item 2(b) Address of Principal Business Office or, if None, Residence

The principal business address for each of the Bain Capital Life Sciences Entities is 200 Clarendon Street, Boston, Massachusetts 02116.

Item 2(c) Citizenship

Each of the Bain Capital Life Sciences Entities is organized under the laws of the State of Delaware.

Item 2(d) Title of Class of Securities

The class of securities of the Issuer to which this Schedule 13G relates is Common Stock, \$0.0001 par value per share ("Common Stock").

Item 2(e) CUSIP Number

The CUSIP number of the Common Stock is 68062P106.

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) \square Broker or dealer registered under section 15 of the Act (15 U.S.C. 780);

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

- (c) \Box 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) \Box An investment adviser in accordance with § 240.13d-1(b)(1)(ii)(E);
- (f) \Box An employee benefit plan or endowment fund in accordance with § 240.13d-1(b)(1)(ii)(F);

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(g) \Box A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G);

- (h) 🗆 A savings association 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 (15 U.S.C. 80a-3);
- (j) \Box A non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J);
- (k) \Box Group, in accordance with § 240.13d-1(b)(1)(ii)(K).

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) Amount beneficially owned:

As of the close of business on December 4, 2024, the Reporting Person held 6,500,000 shares of Common Stock and a pre-funded warrant to purchase up to 4,513,216 shares of Common Stock.

The Reporting Person is prohibited from exercising the pre-funded warrant if, as a result of such exercise, the Reporting Person would beneficially own more than 9.99% of the total number of shares of Common Stock then issued and outstanding immediately after giving effect to the exercise (the "Beneficial Ownership Blocker"). Accordingly, pursuant to Rule 13d-3 of the Act, the Reporting Person may be deemed to beneficially own 9.99% of the outstanding shares of Common Stock, representing 7,470,214 shares of Common Stock as of December 4, 2024.

The calculation of beneficial ownership of the Reporting Person is based on (i) 57,297,845 shares of Common Stock issued and outstanding as of November 8, 2024, as reported by the Issuer in its Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 12, 2024; (ii) the issuance of 19,928,875 shares of Common Stock in a private placement that closed on December 4, 2024, as disclosed by the Issuer in its Current Report on Form 8-K filed with the Securities and Exchange Commission on December 2, 2024; (iii) the exchange of 3,420,000 shares of Common Stock that occurred on December 4, 2024, as disclosed by the Issuer in its Current Report on Form 8-K filed with the Securities and Exchange Commission on December 2, 2024; (iii) the exchange of 3,420,000 shares of Common Stock that occurred on December 4, 2024, as disclosed by the Issuer in its Current Report on Form 8-K filed with the Securities and Exchange Commission on December 2, 2024; and (iv) 970,214 shares of Common Stock issuable upon the partial exercise of the pre-funded warrant held by the Reporting Person, which reflects the Beneficial Ownership Blocker.

(b) Percent of class:

See Item 4(a) hereof.

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

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

0 shares of Common Stock.

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

See Item 4(a) hereof.

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

0 shares of Common Stock.

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

See Item 4(a) hereof.

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 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.

SIGNATURES

After reasonable inquiry and to the best of its knowledge and belief, the undersigned certifies that the information in this statement is true, complete and correct.

Dated: December 11, 2024

Bain Capital Life Sciences Opportunities IV, L.P.

- By: Bain Capital Life Sciences Opportunities IV GP, LLC, its general partner
- By: Bain Capital Life Sciences Fund IV, L.P., its sole member
- By: Bain Capital Life Sciences IV General Partner, LLC, its general partner
- By: Bain Capital Life Sciences Investors, LLC, its manager
- By: /s/ Andrew Hack Name: Andrew Hack Title: Partner