
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934

(Amendment No. 4)*

Enliven Therapeutics, Inc.

(Name of Issuer)

COMMON STOCK

(Title of Class of Securities)

(CUSIP Number)

**OrbiMed Advisors LLC
601 Lexington Avenue, 54th Floor
New York, NY, 10022
(212) 739-6400**

**OrbiMed Capital GP VII LLC
601 Lexington Avenue, 54th Floor
New York, NY, 10022
(212) 739-6400**

**OrbiMed Genesis GP LLC
601 Lexington Avenue, 54th Floor
New York, NY, 10022
(212) 739-6400**

**OrbiMed Capital LLC
601 Lexington Avenue, 54th Floor
New York, NY, 10022
(212) 739-6400**

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

06/15/2026

(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
ORBIMED ADVISORS 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
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 7,634,630.00
Sole Dispositive Power

9 0.00
Shared Dispositive Power

10 7,634,630.00
Aggregate amount beneficially owned by each reporting person

11 7,634,630.00
Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)

12
Percent of class represented by amount in Row (11)

13 10.93 %
Type of Reporting Person (See Instructions)

14 IA

SCHEDULE 13D

CUSIP No.

1 Name of reporting person

ORBIMED CAPITAL GP VII 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

Citizenship or place of organization

6

DELAWARE

Sole Voting Power

7

0.00

Number of
Shares

Shared Voting Power

Beneficially 8

Owned by

7,388,902.00

Each

Sole Dispositive Power

Reporting 9

Person

0.00

With:

Shared Dispositive Power

10

7,388,902.00

Aggregate amount beneficially owned by each reporting person

11

7,388,902.00

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

12

Percent of class represented by amount in Row (11)

13

10.58 %

Type of Reporting Person (See Instructions)

14

OO

SCHEDULE 13D

CUSIP No.

Name of reporting person

1

ORBIMED GENESIS 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

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	
Number of Shares Beneficially Owned by Each Reporting Person	0.00
	Shared Voting Power
8	
	245,728.00
	Sole Dispositive Power
9	
	0.00
With:	Shared Dispositive Power
10	
	245,728.00
11	Aggregate amount beneficially owned by each reporting person
	245,728.00
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)
	<input type="checkbox"/>
13	Percent of class represented by amount in Row (11)
	0.35 %
14	Type of Reporting Person (See Instructions)
	OO

SCHEDULE 13D

CUSIP No.

1	Name of reporting person
	ORBIMED CAPITAL LLC
	Check the appropriate box if a member of a Group (See Instructions)
2	<input type="checkbox"/> (a)
	<input type="checkbox"/> (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)
	<input type="checkbox"/>
6	Citizenship or place of organization
	DELAWARE
Number of Shares Beneficially Owned by Each Reporting Person	Sole Voting Power
7	
	31,132.00
	Shared Voting Power
8	
	0.00
With:	Sole Dispositive Power
9	
	31,132.00
	10 Shared Dispositive Power

0.00

Aggregate amount beneficially owned by each reporting person

11

31,132.00

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

12



Percent of class represented by amount in Row (11)

13

0.04 %

Type of Reporting Person (See Instructions)

14

IA

SCHEDULE 13D

Item 1. Security and Issuer

Title of Class of Securities:

(a)

COMMON STOCK

Name of Issuer:

(b)

Enliven Therapeutics, Inc.

Address of Issuer's Principal Executive Offices:

(c)

6200 Lookout Road, Boulder, COLORADO , 80301.

Item 1 Comment: This Amendment No. 4 ("Amendment No. 4") to Schedule 13D supplements and amends the Statement on Schedule 13D of OrbiMed Advisors LLC ("OrbiMed Advisors"), OrbiMed Capital GP VII LLC ("OrbiMed GP"), OrbiMed Genesis GP LLC ("OrbiMed Genesis"), and OrbiMed Capital LLC ("OrbiMed Capital") (collectively, the "Reporting Persons") originally filed with the Securities and Exchange Commission (the "SEC") on February 28, 2023, as amended by Amendment No. 1 filed with the SEC on April 4, 2024, Amendment No. 2 filed with the SEC on May 20, 2024 and Amendment No. 3 filed with the SEC on June 17, 2025. This Amendment No. 4 is being filed to report that as a result of (i) the transactions described in Item 5 below and (ii) an increase in the number of Shares outstanding, the beneficial ownership of the outstanding Shares that the Reporting Persons may be deemed to beneficially own decreased by more than 1%.

Item 2. Identity and Background

OrbiMed Advisors, a limited liability company organized under the laws of Delaware and a registered investment adviser under the Investment Advisers Act of 1940, as amended. OrbiMed GP, a limited liability company organized under the laws of Delaware. OrbiMed Genesis, a limited liability company organized under the laws of Delaware.

(a) OrbiMed Capital, a limited liability company organized under the laws of Delaware and a registered investment adviser under the Investment Advisers Act of 1940, as amended. Carl L. Gordon, a United States citizen. Sven H. Borho, a German and Swedish citizen. W. Carter Neild, a United States citizen. Geoffrey C. Hsu, a United States citizen. C. Scotland Stevens, a United States citizen. David P. Bonita, a United States citizen. Peter A. Thompson, a United States citizen. Matthew S. Rizzo, a United States citizen. Mona Ashiya, a United States citizen. Trey Block, a United States citizen.

(b) 601 Lexington Avenue, 54th Floor, New York, New York 10022.

OrbiMed Advisors is the managing member or general partner of certain entities as more particularly described in Item 6 below. OrbiMed GP is the general partner of a limited partnership as more particularly described in Item 6 below. OrbiMed Genesis is the general partner of a limited partnership as more particularly described in Item 6 below. OrbiMed Capital is the investment advisor of an investment trust as more particularly described in Item 6 below.

(c) Carl L. Gordon is a member of OrbiMed Advisors. Sven H. Borho is a member of OrbiMed Advisors. W. Carter Neild is a member of OrbiMed Advisors. Geoffrey C. Hsu is a member of OrbiMed Advisors. C. Scotland Stevens is a member of OrbiMed Advisors. David P. Bonita is a member of OrbiMed Advisors. Peter A. Thompson is a member of OrbiMed Advisors. Matthew S. Rizzo is a member of OrbiMed Advisors. Mona Ashiya is a member of OrbiMed Advisors. Trey Block is the Chief Financial Officer of OrbiMed Advisors.

(d) Not applicable.

(e) Not applicable.

(f) Item 2(a) is incorporated herein by reference.

Item 3. Source and Amount of Funds or Other Consideration

Not applicable.

Item 4. Purpose of Transaction

The Reporting Persons from time to time intend to review their investment in the Issuer on the basis of various factors, including the Issuer's business, financial condition, results of operations and prospects, general economic and industry conditions, the securities markets in general and those for the Issuer's Shares in particular, as well as other developments and other investment opportunities. Based upon such review, the Reporting Persons will take such actions in the future as the Reporting Persons may deem appropriate in light of the circumstances existing from time to time. If the Reporting Persons believe that further investment in the Issuer is attractive, whether because of the market price of Shares or otherwise, they may acquire Shares or other securities of the Issuer either in the open market or in privately negotiated transactions. Similarly, depending on market and other factors, the Reporting Persons may determine to dispose of some or all of the Shares currently owned by the Reporting Persons or otherwise acquired by the Reporting Persons either in the open market or in privately negotiated transactions. Except as set forth in this Schedule 13D, the Reporting Persons have not formulated any plans or proposals which relate to or would result in: (a) the acquisition by any person of additional securities of the Issuer or the disposition of securities of the Issuer, (b) an extraordinary corporate transaction, such as a merger, reorganization or liquidation, involving the Issuer or any of its subsidiaries, (c) a sale or transfer of a material amount of the assets of the Issuer or any of its subsidiaries, (d) any change in the present Board of Directors or management of the Issuer, including any plans or proposals to change the number or term of directors or to fill any existing vacancies on the board, (e) any material change in the Issuer's capitalization or dividend policy of the Issuer, (f) any other material change in the Issuer's business or corporate structure, (g) any change in the Issuer's charter or bylaws or other instrument corresponding thereto or other action which may impede the acquisition of control of the Issuer by any person, (h) causing a class of the Issuer's securities to be deregistered or delisted from a national securities exchange or to cease to be authorized to be quoted in an inter-dealer quotation system of a registered national securities association, (i) a class of equity securities of the Issuer becoming eligible for termination of registration pursuant to Section 12(g)(4) of the Act or (j) any action similar to any of those enumerated above.

Item 5. Interest in Securities of the Issuer

The following disclosure is based upon 69,822,929 outstanding Shares as set forth in the Issuer's Final Rule 424(b)(5) Prospectus filed with the SEC on June 12, 2026. As of the date of this filing, OrbiMed Private Investments VII, LP ("OPI VII"), a limited partnership organized under the laws of Delaware, holds 7,388,902 Shares constituting approximately 10.58% of the issued and outstanding Shares. OrbiMed GP is the general partner of OPI VII, pursuant to the terms of the limited partnership agreement of OPI VII, and OrbiMed Advisors is the managing member of OrbiMed GP, pursuant to the terms of the limited liability company agreement of OrbiMed GP. As a result, OrbiMed Advisors and OrbiMed GP share power to direct the vote and disposition of the Shares held by OPI VII and may be deemed directly or indirectly, including by reason of their mutual affiliation, to be the beneficial owners of the Shares held by OPI VII. OrbiMed Advisors exercises this investment and voting power through a management committee comprised of Carl L. Gordon, Sven H. Borho, and W. Carter Neild, each of whom disclaims beneficial ownership of the Shares held by OPI VII. As of the date of this filing, OrbiMed Genesis Master Fund, L.P. ("Genesis"), a limited partnership organized under the laws of the Cayman Islands, holds 245,728 Shares constituting approximately 0.35% of the issued and outstanding Shares. OrbiMed Genesis is the general partner of Genesis, pursuant to the terms of the limited partnership agreement of Genesis, and OrbiMed Advisors is the managing member of OrbiMed Genesis, pursuant to the terms of the limited liability company agreement of OrbiMed Genesis. As a result, OrbiMed Advisors and OrbiMed Genesis share power to direct the vote and disposition of the Shares held by Genesis and may be deemed, directly or indirectly, including by reason of their mutual affiliation, to be the beneficial owners of the Shares held by Genesis. OrbiMed Advisors exercises this investment and voting power through a management committee comprised of Carl L. Gordon, Sven H. Borho, and W. Carter Neild, each of whom disclaims beneficial ownership of the Shares held by Genesis. As of the date of this filing, The Biotech Growth Trust PLC ("BIOG"), a publicly listed investment trust organized under the laws of England, holds 31,132 Shares constituting approximately 0.04% of the issued and outstanding Shares. OrbiMed Capital is the investment advisor of BIOG. As a result, OrbiMed Capital has the power to direct the vote and disposition of the Shares held by BIOG and may be deemed directly or indirectly, including by reason of mutual affiliation, to be the beneficial owner of the Shares held by BIOG. OrbiMed Capital disclaims any beneficial ownership over the shares of the other Reporting Persons. OrbiMed Capital exercises this investment and voting power through a management committee comprised of Carl L. Gordon, Sven H. Borho, and W. Carter Neild, each of whom disclaims beneficial ownership of the Shares held by BIOG.

(a)

(b)

(c) Not applicable.

(d) Not applicable.

(e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships With Respect to Securities of the Issuer

In addition to the relationships between the Reporting Persons described in Items 2 and 5 above, OrbiMed GP is the general partner of OPI VII, pursuant to the terms of the limited partnership agreement of OPI VII. Pursuant to this agreement and relationship, OrbiMed GP has discretionary investment management authority with respect to the assets of OPI VII. Such authority includes the power to vote and otherwise dispose of securities held by OPI VII. The number of outstanding Shares of the Issuer attributable to OPI VII is 7,388,902. OrbiMed GP, pursuant to its authority under the limited partnership agreement of OPI VII, may be considered to hold indirectly 7,388,902 Shares. In addition to the relationships between the Reporting Persons described in Items 2 and 5 above, OrbiMed Genesis is the general partner of Genesis, pursuant to the terms of the limited partnership agreement of Genesis. Pursuant to this agreement and relationship, OrbiMed Genesis has discretionary investment management authority with respect to the

assets of Genesis. Such authority includes the power to vote and otherwise dispose of securities held by Genesis. The number of outstanding Shares of the Issuer attributable to Genesis is 245,728. OrbiMed Genesis, pursuant to its authority under the limited partnership agreement of Genesis, may be considered to hold indirectly 245,728 Shares. In addition to the relationships between the Reporting Persons described in Items 2 and 5 above, OrbiMed Advisors is the managing member of OrbiMed GP and OrbiMed Genesis, pursuant to the terms of the limited liability company agreements of OrbiMed GP and OrbiMed Genesis. Pursuant to these agreements and relationships, OrbiMed Advisors and OrbiMed GP have discretionary investment management authority with respect to the assets of OPI VII and OrbiMed Advisors and OrbiMed Genesis have discretionary investment management authority with respect to the assets of Genesis. Such authority includes the power of OrbiMed GP to vote and otherwise dispose of securities held by OPI VII and OrbiMed Genesis to vote and otherwise dispose of securities held by Genesis. The number of outstanding Shares attributable to OPI VII is 7,388,902 Shares and the number of outstanding Shares attributable to Genesis is 245,728. OrbiMed Advisors, pursuant to its authority under the terms of the limited liability company agreements of OrbiMed GP and OrbiMed Genesis, may also be considered to hold indirectly 7,634,630 Shares. In addition to the relationships between the Reporting Persons described in Items 2 and 5 above, OrbiMed Capital is the portfolio manager to BIOG. OrbiMed Capital may be deemed to have voting and investment power over the securities held by BIOG. Such authority includes the power of OrbiMed Capital to vote and otherwise dispose of securities held by BIOG. The number of outstanding Shares attributable to BIOG is 31,132 Shares. OrbiMed Capital, as the portfolio manager to BIOG, may also be considered to hold indirectly 31,132 Shares.

Item 7. Material to be Filed as Exhibits.

Exhibit Description 1: Joint Filing Agreement among OrbiMed Advisors LLC, OrbiMed Capital LLC, OrbiMed Capital GP VII LLC, and OrbiMed Genesis GP LLC.

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.

ORBIMED ADVISORS LLC

Signature: /s/ Carl L. Gordon
Name/Title: Carl L. Gordon, Member
Date: 06/17/2026

ORBIMED CAPITAL GP VII LLC

Signature: /s/ Carl L. Gordon
Name/Title: Carl L. Gordon, Member of OrbiMed Advisors
LLC
Date: 06/17/2026

ORBIMED GENESIS GP LLC

Signature: /s/ Carl L. Gordon
Name/Title: Carl L. Gordon, Member of OrbiMed Advisors
LLC
Date: 06/17/2026

ORBIMED CAPITAL LLC

Signature: /s/ Carl L. Gordon
Name/Title: Carl L. Gordon, Member
Date: 06/17/2026

JOINT FILING AGREEMENT

The undersigned hereby agree that Amendment No. 4 to the Statement on Schedule 13D, dated June 15, 2026, with respect to the common stock of Enliven Therapeutics, Inc. is filed on behalf of each of us pursuant to and in accordance with the provisions of Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended. Each of the undersigned agrees to be responsible for the timely filing of this Statement, and for the completeness and accuracy of the information concerning itself contained therein. This Joint Filing Agreement may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the 17th day of June 2026.

ORBIMED ADVISORS LLC

By: /s/ Carl L. Gordon
Name: Carl L. Gordon
Title: Member

ORBIMED CAPITAL GP VII LLC

By: ORBIMED ADVISORS LLC, its managing member

By: /s/ Carl L. Gordon
Name: Carl L. Gordon
Title: Member of OrbiMed Advisors LLC

ORBIMED GENESIS GP LLC

By: ORBIMED ADVISORS LLC, its managing member

By: /s/ Carl L. Gordon
Name: Carl L. Gordon
Title: Member of OrbiMed Advisors LLC

ORBIMED CAPITAL LLC

By: /s/ Carl L. Gordon
Name: Carl L. Gordon
Title: Member
