UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934 (Amendment No. 2)*

Enliven Therapeutics, Inc.

(Name of Issuer)

Common Stock, par value \$0.001 per share

(Title of Class of Securities)

29337E102

(CUSIP Number)

5AM Venture Management, LLC Attn: Paul A. Stone, Chief Legal Officer 501 2nd Street, Suite 350 San Francisco, CA 94107 (415) 993-8565

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

January 31, 2024

(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 $\S\S240.13d-1(e)$, 240.13d-1(f) or 240.13d-1(g), check the following box. \square

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7 for other parties to whom copies are to be sent.

* 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 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).

| CUSIP N | lo. 29337E10 | 2 | | | | | | |
|---|--|---|---|--|--|--|--|--|
| 1. | Names of Reporting Persons 5AM Ventures VI, L.P. | | | | | | | |
| 2. | Check the Ap | Check the Appropriate Box if a Member of a Group (See Instructions) | | | | | | |
| | (a) □ (b) ⊠ (1) | | | | | | | |
| 3. | SEC Use Onl | y | | | | | | |
| 4. | Source of Funds (See Instructions) WC | | | | | | | |
| 5. | Check if Disc | losur | e of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e) | | | | | |
| 6. | Citizenship of Delaware | r Plac | ee of Organization | | | | | |
| Number | r of | 7. | Sole Voting Power 0 | | | | | |
| Shares Benefic Owned | sially by 9. ng With | 8. | Shared Voting Power 3,888,992 shares (2) | | | | | |
| Each Reporti | | 9. | Sole Dispositive Power 0 | | | | | |
| Person | | 10. | Shared Dispositive Power 3,888,992 shares (2) | | | | | |
| 11. | 11. Aggregate Amount Beneficially Owned by Each Reporting Person 3,888,992 shares (2) | | | | | | | |
| 12. | Check if the | Aggre | egate Amount in Row (11) Excludes Certain Shares (See Instructions) | | | | | |
| 13. | Percent of Class Represented by Amount in Row (11) 9.4% (3) | | | | | | | |
| 14. | Type of Reporting Person (See Instructions) PN | | | | | | | |
| ("Op Vent discl (2) The of Pa | opportunities"), sures VI, Partn aim status as a shares are direct artners VI. Each percentage is reterly Report of | SAM ers V "groot ctly h h of F | filed by 5AM Ventures VI, L.P. ("Ventures VI"), 5AM Partners VI, LLC ("Partners VI"), 5AM Opportunities I, L.P. Opportunities I (GP), LLC ("Opportunities GP"), Andrew J. Schwab ("Schwab") and Dr. Kush Parmar ("Parmar" and, with I, Opportunities, Opportunities GP and Schwab, collectively, the "Reporting Persons"). The Reporting Persons expressly up" for purposes of this Schedule 13D. eld by Ventures VI. Partners VI serves as sole general partner of Ventures VI and Schwab and Parmar are managing members Partners VI, Schwab and Parmar shares voting and dispositive power over the shares held by Ventures VI. alated based upon 41,211,973 shares of Common Stock outstanding as of November 1, 2023, as reported in the Issuer's m 10-Q for the quarterly period ended September 30, 2023 filed with the Securities and Exchange Commission on November | | | | | |
| | | | | | | | | |

| CUSIP N | lo. 2933′ | 7E102 | | | | | | | |
|--|---|---|--|--|--|--|--|--|--|
| 1. | Names of Reporting Persons 5AM Partners VI, LLC | | | | | | | | |
| 2. | Check th | Check the Appropriate Box if a Member of a Group (See Instructions) | | | | | | | |
| | (a) □ (b) ⊠ (1 | (a) □ (b) ⋈ (1) | | | | | | | |
| 3. | SEC Use | e Only | | | | | | | |
| 4. | Source of AF | of Funds (| See Instructions) | | | | | | |
| 5. | Check if | Disclosu | re of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e) | | | | | | |
| 6. Citizenship or Place of Organization Delaware | | | | | | | | | |
| Numbe | r of | 7. | Sole Voting Power 0 | | | | | | |
| Shares Benefic | eially | 8. | Shared Voting Power 3,888,992 shares (2) | | | | | | |
| Owned Each Reporti | ng | 9. | Sole Dispositive Power 0 | | | | | | |
| Person | With | 10. | Shared Dispositive Power 3,888,992 shares (2) | | | | | | |
| 11. | 11. Aggregate Amount Beneficially Owned by Each Reporting Person 3,888,992 shares (2) | | | | | | | | |
| 12. | Check if | f the Aggre | egate Amount in Row (11) Excludes Certain Shares (See Instructions) | | | | | | |
| 13. | Percent of Class Represented by Amount in Row (11) 9.4% (3) | | | | | | | | |
| 14. | Type of Reporting Person (See Instructions) OO | | | | | | | | |
| (1) This | Schedule | : 13D is fil | led by the Reporting Persons. The Reporting Persons expressly disclaim status as a "group" for purposes of this Schedule 13D. | | | | | | |
| | | | held by Ventures VI. Partners VI serves as sole general partner of Ventures VI and Schwab and Parmar are managing members Partners VI, Schwab and Parmar shares voting and dispositive power over the shares held by Ventures VI. | | | | | | |
| | rterly Rep | | culated based upon 41,211,973 shares of Common Stock outstanding as of November 1, 2023, as reported in the Issuer's rm 10-Q for the quarterly period ended September 30, 2023 filed with the Securities and Exchange Commission on November | | | | | | |
| | | | | | | | | | |

| CUSIP N | o. 2933 | 7E102 | | | | | | |
|----------------------------|---|-------------------------|--|--|--|--|--|--|
| 1. | Names of Reporting Persons 5AM Opportunities I, L.P. | | | | | | | |
| 2. | riate Box if a Member of a Group (See Instructions) | | | | | | | |
| | (a) □ (b) ⋈ (1) | | | | | | | |
| 3. | SEC Us | e Only | | | | | | |
| 4. | Source o | of Funds (S | See Instructions) | | | | | |
| 5. | Check if | f Disclosur | re of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e) | | | | | |
| 6. | Citizens Delawar | | ce of Organization | | | | | |
| Number | of | 7. | Sole Voting Power 0 | | | | | |
| Shares Benefic Owned | ially by ng With | 8. | Shared Voting Power 771,983 shares (2) | | | | | |
| Each Reportin | | 9. | Sole Dispositive Power 0 | | | | | |
| Person V | | 10. | Shared Dispositive Power 771,983 shares (2) | | | | | |
| 11. | | nte Amoun shares (2) | t Beneficially Owned by Each Reporting Person | | | | | |
| 12. | Check if | f the Aggre | egate Amount in Row (11) Excludes Certain Shares (See Instructions) | | | | | |
| 13. | Percent of Class Represented by Amount in Row (11) 1.9% (3) | | | | | | | |
| 14. | Type of Reporting Person (See Instructions) PN | | | | | | | |
| (1) This | Schedule | 13D is fil | ed by the Reporting Persons. The Reporting Persons expressly disclaim status as a "group" for purposes of this Schedule 13D. | | | | | |
| mem | | Opportuni | held by Opportunities. Opportunities GP serves as sole general partner of Opportunities and Schwab and Parmar are managing ties GP. Each of Opportunities GP, Schwab and Parmar shares voting and dispositive power over the shares held by | | | | | |
| | terly Rep | | ulated based upon 41,211,973 shares of Common Stock outstanding as of November 1, 2023, as reported in the Issuer's m 10-Q for the quarterly period ended September 30, 2023 filed with the Securities and Exchange Commission on November 1, 2023, as reported in the Issuer's management of the securities and Exchange Commission on November 1, 2023, as reported in the Issuer's management of the securities and Exchange Commission on November 1, 2023, as reported in the Issuer's management of the securities and Exchange Commission on November 1, 2023, as reported in the Issuer's management of the securities and Exchange Commission on November 1, 2023, as reported in the Issuer's management of the securities and Exchange Commission on November 1, 2023, as reported in the Issuer's management of the securities and Exchange Commission on November 1, 2023, as reported in the Issuer's management of the securities and Exchange Commission on November 1, 2023, as reported in the Issuer's management of the securities and Exchange Commission on November 1, 2023, as reported in the Issuer's management of the securities and Exchange Commission on November 1, 2023, as reported in the Issuer's management of the securities and Exchange Commission on November 1, 2023, as reported in the Issuer's management of the securities and the securities of t | | | | | |
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| CUSIP N | lo. 29337 | 'E102 | | | | | | |
|----------------------------|---|---|--|--|--|--|--|--|
| 1. | Names of Reporting Persons 5AM Opportunities I (GP), LLC | | | | | | | |
| 2. | Check th | Check the Appropriate Box if a Member of a Group (See Instructions) | | | | | | |
| | (a) □ (b) ⊠ (1) | (a) □ (b) ⋈ (1) | | | | | | |
| 3. | SEC Use | Only | | | | | | |
| 4. | Source o | f Funds (S | See Instructions) | | | | | |
| 5. | Check if | Disclosur | re of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e) | | | | | |
| 6. | Citizensh Delaware | | ce of Organization | | | | | |
| Numbe | r of | 7. | Sole Voting Power 0 | | | | | |
| Shares Benefic Owned | cially by | 8. | Shared Voting Power 771,983 shares (2) | | | | | |
| Each Reporti | | 9. | Sole Dispositive Power 0 | | | | | |
| Person | | 10. | Shared Dispositive Power 771,983 shares (2) | | | | | |
| 11. | | te Amoun shares (2) | Beneficially Owned by Each Reporting Person | | | | | |
| 12. | Check if | the Aggre | egate Amount in Row (11) Excludes Certain Shares (See Instructions) | | | | | |
| 13. | Percent of Class Represented by Amount in Row (11) 1.9% (3) | | | | | | | |
| 14. | Type of Reporting Person (See Instructions) OO | | | | | | | |
| (1) This | Schedule | 13D is fil | ed by the Reporting Persons. The Reporting Persons expressly disclaim status as a "group" for purposes of this Schedule 13D. | | | | | |
| men | | | neld by Opportunities. Opportunities GP serves as sole general partner of Opportunities and Schwab and Parmar are managing ties GP. Each of Opportunities GP, Schwab and Parmar shares voting and dispositive power over the shares held by | | | | | |
| | rterly Repo | | ulated based upon 41,211,973 shares of Common Stock outstanding as of November 1, 2023, as reported in the Issuer's m 10-Q for the quarterly period ended September 30, 2023 filed with the Securities and Exchange Commission on November 1, 2023, as reported in the Issuer's management of the securities and Exchange Commission on November 20, 2023 filed with the Securities and Exchange Commission on November 20, 2023 filed with the Securities and Exchange Commission on November 20, 2023 filed with the Securities and Exchange Commission on November 20, 2023 filed with the Securities and Exchange Commission on November 20, 2023 filed with the Securities and Exchange Commission on November 20, 2023 filed with the Securities and Exchange Commission on November 20, 2023 filed with the Securities and Exchange Commission on November 20, 2023 filed with the Securities and Exchange Commission on November 20, 2023 filed with the Securities and Exchange Commission on November 20, 2023 filed with the Securities and Exchange Commission on November 20, 2023 filed with the Securities 20, 2023 filed with | | | | | |
| | | | | | | | | |

| CUSIP N | o. 29337E10 |)2 | | | | | | |
|----------------------|--|---|---|--|--|--|--|--|
| 1. | Names of Re Kush Parma | | ng Persons | | | | | |
| 2. | Check the A | Check the Appropriate Box if a Member of a Group (See Instructions) | | | | | | |
| | (a) □ (b) ⊠ (1) | | | | | | | |
| 3. | SEC Use On | ly | | | | | | |
| 4. | Source of Fu AF | ınds (S | See Instructions) | | | | | |
| 5. | Check if Dis | closu | re of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e) | | | | | |
| 6. | Citizenship o United State | | ce of Organization | | | | | |
| Number | cially by | 7. | Sole Voting Power 0 | | | | | |
| Shares Benefic | | 8. | Shared Voting Power 4,660,975 shares (2) | | | | | |
| Owned Each Reporting | | 9. | Sole Dispositive Power 0 | | | | | |
| Person V | | 10. | Shared Dispositive Power 4,660,975 shares (2) | | | | | |
| 11. | 1. Aggregate Amount Beneficially Owned by Each Reporting Person 4,660,975 shares (2) | | | | | | | |
| 12. | Check if the | Aggre | egate Amount in Row (11) Excludes Certain Shares (See Instructions) | | | | | |
| 13. | 13. Percent of Class Represented by Amount in Row (11) 11.3% (3) | | | | | | | |
| 14. | Type of Reporting Person (See Instructions) IN | | | | | | | |
| (1) This | Schedule 13D |) is fil | ed by the Reporting Persons. The Reporting Persons expressly disclaim status as a "group" for purposes of this Schedule 13D. | | | | | |
| serve | es as the sole | genera | hares of Common Stock held by Ventures VI and (ii) 771,983 shares of Common Stock held by Opportunities. Partners VI all partner of Ventures VI and Opportunities GP serves as the sole general partner of Opportunities. As managing members of Opportunities GP, Schwab and Parmar share voting and dispositive power over the shares held by each of Ventures VI and | | | | | |
| | terly Report of | | ulated based upon 41,211,973 shares of Common Stock outstanding as of November 1, 2023, as reported in the Issuer's rm 10-Q for the quarterly period ended September 30, 2023 filed with the Securities and Exchange Commission on November | | | | | |
| | | | | | | | | |

| CUSIP N | lo. 29337E10 |)2 | | | | | | |
|----------------------------|---|---|---|--|--|--|--|--|
| 1. | Names of Reporting Persons Andrew J. Schwab | | | | | | | |
| 2. | Check the A | Check the Appropriate Box if a Member of a Group (See Instructions) | | | | | | |
| | (a) □ (b) ⊠ (1) | | | | | | | |
| 3. | SEC Use On | ıly | | | | | | |
| 4. | Source of Fu | ınds (S | See Instructions) | | | | | |
| 5. | Check if Dis | closur | e of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e) | | | | | |
| 6. | Citizenship o United State | | ee of Organization | | | | | |
| Numbe | cially by | 7. | Sole Voting Power 0 | | | | | |
| Shares Benefic Owned | | 8. | Shared Voting Power 4,660,975 shares (2) | | | | | |
| Each Reporti | | 9. | Sole Dispositive Power 0 | | | | | |
| Person | | 10. | Shared Dispositive Power 4,660,975 shares (2) | | | | | |
| 11. | Aggregate Amount Beneficially Owned by Each Reporting Person 4,660,975 shares (2) | | | | | | | |
| 12. | Check if the | Aggre | egate Amount in Row (11) Excludes Certain Shares (See Instructions) | | | | | |
| 13. | 3. Percent of Class Represented by Amount in Row (11) 11.3% (3) | | | | | | | |
| 14. | Type of Reporting Person (See Instructions) IN | | | | | | | |
| (1) This | Schedule 13I |) is fil | ed by the Reporting Persons. The Reporting Persons expressly disclaim status as a "group" for purposes of this Schedule 13D. | | | | | |
| serv | es as the sole | genera | hares of Common Stock held by Ventures VI and (ii) 771,983 shares of Common Stock held by Opportunities. Partners VI all partner of Ventures VI and Opportunities GP serves as the sole general partner of Opportunities. As managing members of Opportunities GP, Schwab and Parmar share voting and dispositive power over the shares held by each of Ventures VI and | | | | | |
| | rterly Report of | | ulated based upon 41,211,973 shares of Common Stock outstanding as of November 1, 2023, as reported in the Issuer's m 10-Q for the quarterly period ended September 30, 2023 filed with the Securities and Exchange Commission on November | | | | | |
| | | | | | | | | |

Explanatory Note: This Amendment No. 2 (the "Amendment"), which amends the Schedule 13D filed with the Securities and Exchange Commission (the "SEC") on March 6, 2023, as amended on August 28, 2023 (the "Original Schedule 13D") on behalf of 5AM Ventures VI, L.P. ("Ventures VI"), 5AM Partners VI, LLC ("Partners VI"), 5AM Opportunities I, L.P. ("Opportunities"), 5AM Opportunities I (GP), LLC ("Opportunities GP"), Andrew J. Schwab ("Schwab") and Dr. Kush Parmar ("Parmar" and, with Ventures VI, Partners VI, Opportunities, Opportunities GP and Schwab, collectively, the "Reporting Persons") relates to the Common Stock, par value \$0.001 per share ("Common Stock") of Enliven Therapeutics, Inc., a Delaware corporation (the "Issuer"). This Amendment is being filed by the Reporting Persons to report sales of Common Stock on January 31, 2024. Accordingly, the number of securities beneficially owned by the Reporting Persons has decreased as described in Items 4 and 5 below.

Items 4 and 5 of the Original Schedule 13D are hereby amended and supplemented to the extent hereinafter expressly set forth and, except as amended and supplemented hereby, the Original Schedule 13D remains in full force and effect. All capitalized terms used in this Amendment but not defined herein shall have the meanings ascribed thereto in the Original Schedule 13D.

Item 4. Purpose of Transaction

Item 4 of the Original Schedule 13D is hereby amended and supplemented by adding the following paragraph at the end of Item 4:

On January 31, 2024, Ventures VI sold an aggregate of 417,187 shares of Common Stock and Opportunities sold an aggregate of 82,813 shares of Common Stock in a block trade with a registered broker dealer at a price of \$15.00 per share.

Item 5. Interest in Securities of the Issuer

Item 5 of the Schedule 13D is hereby amended and restated in its entirety as follows:

(a) – (b). The following information with respect to the ownership of the Common Stock of the Issuer by the persons filing this statement on Schedule 13D is provided as of February 2, 2024:

| Reporting Persons | Shares Held Directly | Sole Voting Power | Shared Voting Power | Sole Dispositive Power | Shared Dispositive Power | Beneficial Ownership | Percentage of Class (3) |
|----------------------|----------------------------|----------------------|---------------------------|------------------------------|--------------------------------|-------------------------|-------------------------|
| Ventures VI | 3,888,992 | 0 | 3,888,992 | 0 | 3,888,992 | 3,888,992 | 9.4% |
| Partners VI (1) | 0 | 0 | 3,888,992 | 0 | 3,888,992 | 3,888,992 | 9.4% |
| Opportunities | 771,983 | 0 | 771,983 | 0 | 771,983 | 771,983 | 1.9% |
| Opportunities GP (2) | 0 | 0 | 771,983 | 0 | 771,983 | 771,983 | 1.9% |
| Schwab (1) (2) | 0 | 0 | 4,660,975 | 0 | 4,660,975 | 4,660,975 | 11.3% |
| Parmar (1) (2) | 0 | 0 | 4,660,975 | 0 | 4,660,975 | 4,660,975 | 11.3% |

- (1) Includes 3,888,992 shares of Common Stock directly held by Ventures VI. Partners VI serves as sole general partner of Ventures VI and Schwab and Parmar are managing members of Partners VI. Each of Partners VI, Schwab and Parmar shares voting and dispositive power over the shares held by Ventures VI.
- (2) Includes 771,983 shares of Common Stock directly held by Opportunities. Opportunities GP serves as sole general partner of Opportunities and Schwab and Parmar are managing members of Opportunities GP. Each of Opportunities GP, Schwab and Parmar shares voting and dispositive power over the shares held by Opportunities.
- (3) This percentage is calculated based upon (i) 41,211,973 shares of Common Stock outstanding as of November 1, 2023, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2023 filed with the Securities and Exchange Commission on November 9, 2023.
- (c) Except as set forth herein, none of the Reporting Persons has effected any transactions in shares of the Issuer's Common Stock during the last 60 days.
- (d) No other person is known to have the right to receive or the power to direct the receipt of dividends from, or any proceeds from the sale of, the shares of Common Stock beneficially owned by any of the Reporting Persons.

(e) Not applicable.

Item 7. Material to be Filed as Exhibits

A. Joint Filing Agreement, dated December 13, 2021 (incorporated by reference to the Original Schedule 13D, filed on March 6, 2023).

| | Signature | | | | | |
|------------|--|--|--|--|--|--|
| After | 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. | | | | | |
| Date | d: February 2, 2024 | | | | | |
| 5AM | Ventures VI, L.P. | | | | | |
| By: | 5AM Partners VI, LLC General Partner | | | | | |
| By: | /s/ Andrew J. Schwab Name: Andrew J. Schwab Title: Managing Member | | | | | |
| 5AM | Partners VI, LLC | | | | | |
| By: | /s/ Andrew J. Schwab Name: Andrew J. Schwab Title: Managing Member | | | | | |
| 5AM | Opportunities I, L.P. | | | | | |
| By: its | 5AM Opportunities I (GP), LLC General Partner | | | | | |
| By: | /s/ Andrew J. Schwab Name: Andrew J. Schwab Title: Managing Member | | | | | |
| 5AM | Opportunities I (GP), LLC | | | | | |
| By: | /s/ Andrew J. Schwab Name: Andrew J. Schwab Title: Managing Member | | | | | |
| | ndrew J. Schwab | | | | | |
| Andr | ew J. Schwab | | | | | |

ATTENTION

/s/ Dr. Kush Parmar Dr. Kush Parmar

Intentional misstatements or omissions of fact constitute Federal Criminal Violations (See 18 U.S.C. 1001).