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

**SCHEDULE 13D**

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

**Zenas BioPharma, Inc.**

(Name of Issuer)

**Common stock, \$0.0001 par value per share**

(Title of Class of Securities)

**055477103**

(CUSIP Number)

**Enavate Sciences  
106 W 56th Street  
8th Floor  
New York, NY, 10019  
Attention: James P. Boylan  
(332) 275-5551**

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

**September 16, 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 §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box.

**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).

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|---|--|---------------------------------------|
| 1.  | Names of Reporting Persons<br>Enavate Sciences GP, LLC   |                                       |
| 2.  | Check the Appropriate Box if a Member of a Group (See Instructions)<br>(a) <input type="checkbox"/> (b) <input type="checkbox"/> |                                       |
| 3.  | SEC Use Only   |                                       |
| 4.  | Source of Funds (See Instructions)<br>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<br>Delaware   |                                       |
| Number of<br>Shares<br>Beneficially<br>Owned by<br>Each<br>Reporting<br>Person With | 7.   | Sole Voting Power                     |
|   | 8.   | Shared Voting Power<br>3,761,359      |
|   | 9.   | Sole Dispositive Power                |
|   | 10.  | Shared Dispositive Power<br>3,761,359 |
| 11.   | Aggregate Amount Beneficially Owned by Each Reporting Person<br>3,761,359  |                                       |
| 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)<br>9.0%   |                                       |
| 14.   | Type of Reporting Person (See Instructions)<br>OO  |                                       |

|   |  |                                       |
|---|--|---------------------------------------|
| 1.  | Names of Reporting Persons<br>Zebra Aggregator, LP   |                                       |
| 2.  | Check the Appropriate Box if a Member of a Group (See Instructions)<br>(a) <input type="checkbox"/> (b) <input type="checkbox"/> |                                       |
| 3.  | SEC Use Only   |                                       |
| 4.  | Source of Funds (See Instructions)<br>WC   |                                       |
| 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<br>Delaware   |                                       |
| Number of<br>Shares<br>Beneficially<br>Owned by<br>Each<br>Reporting<br>Person With | 7.   | Sole Voting Power                     |
|   | 8.   | Shared Voting Power<br>3,761,359      |
|   | 9.   | Sole Dispositive Power                |
|   | 10.  | Shared Dispositive Power<br>3,761,359 |
| 11.   | Aggregate Amount Beneficially Owned by Each Reporting Person<br>3,761,359  |                                       |
| 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)<br>9.0%   |                                       |
| 14.   | Type of Reporting Person (See Instructions)<br>PN  |                                       |

## Item 1. Security and Issuer

The class of equity security to which this statement on Schedule 13D relates is the Common Stock, \$0.0001 par value (“Common Stock”) of Zenas BioPharma, Inc., a Delaware corporation (the “Issuer”). The address of the principal executive offices of the Issuer is 1000 Winter Street, Suite 1200, Waltham, MA 02451. Information given in response to each item shall be deemed incorporated by reference in all other items, as applicable.

## Item 2. Identity and Background

- (a) This Schedule 13D is filed by Enavate Sciences GP, LLC (“Enavate GP”) and Zebra Aggregator, LP (“Zebra LP” and, with Enavate GP, collectively, the “Reporting Persons”). The Reporting Persons expressly disclaim status as a “group” for purposes of this Schedule 13D.
- (b) The principal business office of Enavate GP is 2882 Sand Hill Road, Suite 100, Menlo Park, CA 94025. The principal business office of Zebra LP is 106 W 56th Street, 8th Floor, New York, NY 10019.
- (c) The principal business of Enavate GP is performing the functions of, and serving as, the sole general partner of Zebra LP and certain affiliated partnerships, which make venture capital investments. The principal business of Zebra LP is investing in and holding the securities of the Issuer.
- (d) During the last five years, none of the Reporting Persons has been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).
- (e) During the last five years, none of the Reporting Persons has been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction or were subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.
- (f) Each of Enavate GP and Zebra LP was organized in the state of Delaware.

## Item 3. Source and Amount of Funds or Other Consideration

Prior to the Issuer’s initial public offering (the “IPO”), Zebra LP purchased 10,474,889 shares of Series B Preferred Stock and 14,523,821 shares of Series C Preferred Stock for an aggregate purchase price of \$50,015,957.

On September 5, 2024, the Issuer effected a 1-for-8.6831 reverse stock split of its common stock and a proportional adjustment to the existing conversion ratios of the Preferred Stock (the “Reverse Stock Split”). In connection with the closing of the IPO, on September 16, 2024, the Preferred Stock discussed above automatically converted into shares of Common Stock on a 1-for-8.6831 basis. Zebra LP also purchased 882,353 shares of Common Stock from the underwriters of the IPO at the IPO price of \$17.00 per share, for an aggregate purchase price of \$15,000,001.

All purchases of the securities described herein were for cash and were funded by capital contributions made by Zebra LP’s general and limited partners.

## Item 4. Purpose of Transaction

The Reporting Persons purchased the aforementioned securities for investment purposes with the aim of increasing the value of their investments and the Issuer. Subject to applicable legal requirements, one or more of the Reporting Persons may purchase additional securities of the Issuer from time to time in open market or private transactions, depending on its evaluation of the Issuer’s business, prospects and financial condition, the market for the Issuer’s securities, other developments concerning the Issuer, the reaction of the Issuer to the Reporting Persons’ ownership of the Issuer’s securities, other opportunities available to the Reporting Persons, and general economic, money market and stock market conditions. In addition, depending upon the factors referred to above, the Reporting Persons may dispose of all or a portion of their securities of the Issuer at any time (including by means of programs adopted pursuant to Rule 10b5-1 under the Securities Exchange Act of 1934 (the “Act”). Each of the Reporting Persons reserve the right to increase or decrease its holdings on such terms and at such times as each may decide.

Except as set forth in this Item 4 and Item 6 below, none of the Reporting Persons have a present plan or proposal that relates to or would result in any of the actions specified in clauses (a) through (j) of Item 4 of Schedule 13D of the Act. However, each of the Reporting Persons reserves the right to propose or participate in future transactions which may result in one or more of such actions, including but not limited to, an extraordinary corporate transaction, such as a merger, reorganization or liquidation, sale of a material amount of assets of the Issuer or its subsidiaries, or other transactions which might have the effect of causing the Common Stock to become eligible for termination of registration under Section 12(g) of the Act. The Reporting Persons also retain the right to change their investment intent at any time, to acquire additional shares of Common Stock or other securities of the Issuer from time to time, or to sell or otherwise dispose of all or part of the Common Stock beneficially owned by them (or any shares of Common Stock into which such securities are converted) in any manner permitted by law. The Reporting Persons may engage from time to time in ordinary course transactions with financial institutions with respect to the securities described herein.

James P. Boylan, a Manager of Enavate GP, is a member of the board of directors of the Issuer. As a director of the Issuer, Mr. Boylan may have influence over the corporate activities of the Issuer, including activities which may relate to the transactions described in clauses (a) through (j) of Item 4 of Schedule 13D.

#### **Item 5. Interest in Securities of the Issuer**

- (a) The information set forth in rows 11 and 13 of the cover pages to this Schedule 13D is incorporated by reference. The percentage set forth in row 13 is based upon 39,792,381 shares of common stock outstanding as of September 16, 2024 upon the closing of the Issuer's initial public offering, as reported in the Issuer's Form 424(b)(4) prospectus filed with the SEC on September 13, 2024 and giving effect to an additional 1,985,294 shares issued and sold pursuant to the underwriters' option.
- (b) The information set forth in rows 7 through 10 of the cover pages to this Schedule 13D and Item 2 above is incorporated by reference.
- (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 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer**

##### *Lock-up Agreements*

The holders of substantially all of the Issuer's pre-IPO capital stock, including Zebra LP, and each of the Issuer's directors, entered into lock-up agreements (the "Lock-Up Agreements") with the representatives of the underwriters of the Issuer's IPO. Pursuant to the Lock-Up Agreements, Zebra LP is not permitted, with limited exceptions, for a period of 180 days from September 12, 2024, to offer, sell, or otherwise transfer or dispose of any of the Issuer's securities, without the consent of Morgan Stanley & Co. LLC and Jefferies LLC.

The description of the Lock-Up Agreements contained in this Item 6 is qualified in its entirety by reference to the full text of the form of Lock-up Agreement filed as Exhibit B to this Schedule 13D and incorporated by reference herein.

##### *Shareholders Agreement*

On May 3, 2024, Zebra LP and certain other parties entered into an amended and restated shareholders agreement (the "Shareholders Agreement"). The Shareholders Agreement provides Zebra LP and other parties thereto with certain demand registration rights, including shelf registration rights, in respect of the shares of Common Stock issued to it upon conversion of the convertible preferred stock, subject to certain conditions. In addition, in the event that the Issuer registers additional shares of Common Stock for its own account or for the account of other holders of its securities, it will be required to give notice of such registration to Zebra LP and certain other parties of its intention to effect such a registration, and, upon request of one or more such parties and subject to certain limitations, include the shares of Common Stock held by them in such registration. The registration rights will expire at such time after the Issuer's initial public offering as Rule 144, or another similar exemption under the Securities Act of 1933, as amended, is available for the sale of all of such holder's shares without limitation during a three-month period without registration.

The Shareholders Agreement contains customary cross-indemnification provisions, pursuant to which the Issuer is obligated to indemnify Zebra LP and other parties in the event of material misstatements or omissions in the registration statement attributable to the Issuer or any violation or alleged violation whether by action or inaction by the Issuer under certain securities laws and Zebra LP is obligated to indemnify the Issuer for material misstatements or omissions in the registration statement attributable to it, subject to certain limitations.

The description of the Shareholders Agreement contained in this Item 6 is qualified in its entirety by reference to the full text of the Shareholders Agreement filed as Exhibit C to this Schedule 13D and incorporated by reference herein.

**Item 7. Material to be Filed as Exhibits**

- A. [Joint Filing Agreement as required by Rule 13d-1\(k\)\(1\) under the Securities Exchange Act of 1934, as amended.](#)
- B. [Form of Lock-up Agreement \(incorporated by reference to Exhibit A to the Form of Underwriting Agreement filed as Exhibit 1.1 to the Issuer's Registration Statement on Form S-1, as amended \(Registration No. 333-281713\), filed with the SEC on September 6, 2024\).](#)
- C. [Fourth Amended and Restated Shareholders Agreement \(incorporated by reference to Exhibit 4.2 to the Issuer's Registration Statement on Form S-1, as amended \(Registration No. 333 281713\), filed with the SEC on September 6, 2024\).](#)

**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.

Dated: September 23, 2024

**Enavate Sciences GP, LLC**

By: /s/ James P. Boylan

\_\_\_\_\_  
Name: James P. Boylan

Title: Manager

**Zebra Aggregator, LP**

By: Enavate Sciences GP, LLC

its General Partner

By: /s/ James P. Boylan

\_\_\_\_\_  
Name: James P. Boylan

Title: Manager

**ATTENTION**

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

**Exhibit(s):**

[A](#)     [Joint Filing Agreement](#)

EXHIBIT A

JOINT FILING AGREEMENT

The undersigned hereby agree that a single Schedule 13D (or any amendment thereto) relating to the Common Stock of Zenas BioPharma, Inc. shall be filed on behalf of each of the undersigned and that this Agreement shall be filed as an exhibit to such Schedule 13D.

Dated: September 23, 2024

**Enavate Sciences GP, LLC**

By: /s/ James P. Boylan

\_\_\_\_\_  
Name: James P. Boylan

Title: Manager

**Zebra Aggregator, LP**

By: Enavate Sciences GP, LLC

its General Partner

By: /s/ James P. Boylan

\_\_\_\_\_  
Name: James P. Boylan

Title: Manager

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